

|    |                                |                                                                                            |      |   |                                       |
|----|--------------------------------|--------------------------------------------------------------------------------------------|------|---|---------------------------------------|
|    |                                | System Sensitivity (1W @1m) 88dB                                                           |      |   |                                       |
|    |                                | Dispersion (-6dB) 90 degrees conical                                                       |      |   |                                       |
|    |                                | Crossover 4.3kHz - 2nd order LF, 2nd order HF                                              |      |   |                                       |
|    |                                | Directivity Factor (Q) 10.6 averaged 1kHz to 10kHz                                         |      |   |                                       |
|    |                                | Directivity Index (DI) 9.6 averaged 1kHz to 10kHz                                          |      |   |                                       |
|    |                                | Construction enclosure ABS                                                                 |      |   |                                       |
|    |                                |                                                                                            |      |   |                                       |
|    |                                | 2 Channel                                                                                  | Unit | 2 | Audio Amplifier - LUCIA 120/2         |
|    |                                | Total output all channels 120W                                                             |      |   |                                       |
|    |                                | Max output all channel driven 2, 4, 8 ohms 60W                                             |      |   |                                       |
|    |                                | Input connector 3-pin detachable screw terminal, electronically balanced                   |      |   |                                       |
|    |                                | Input connector ch 1 & 2 unbalanced RCA type                                               |      |   |                                       |
|    |                                | Output connector 2-pin detachable screw terminals                                          |      |   |                                       |
|    |                                |                                                                                            |      |   |                                       |
|    |                                | Input 12 mic/line (switchable)                                                             | Unit | 1 | Audio input expander - SYMETRIX XIN12 |
|    |                                | Connector 3.81 mm terminal blocks                                                          |      |   |                                       |
|    |                                | Nominal input level +4 dBu with 20 dB of headroom                                          |      |   |                                       |
|    |                                | Max input level +23 dBu                                                                    |      |   |                                       |
|    |                                |                                                                                            |      |   |                                       |
|    |                                | Dimensions unit without microphone (H x W x D) 71 x 220 x 140 mm (2.8 x 8.7 x 5.5 in)      | Unit | 1 | BOSCH ULTRO CCS 900S                  |
|    |                                | Height with microphone in horizontal position 134 mm (5.3 in)                              |      |   |                                       |
|    |                                | Length of microphone from mounting surface CCS-DS CCS-DL 313 mm (12.3 in) 488 mm (19.2 in) |      |   |                                       |
|    |                                | Weight approx. 1 kg (2.2 lb)                                                               |      |   |                                       |
|    |                                |                                                                                            |      |   |                                       |
| 11 | Audio Control Processor System | Modular programming architecture                                                           | Ls   | 1 | CRESTRON CP-3                         |
|    |                                | 512 MB RAM                                                                                 |      |   |                                       |
|    |                                | 2 GB Flash Memory                                                                          |      |   |                                       |
|    |                                | Vector floating point coprocessor                                                          |      |   |                                       |
|    |                                | One Rs-232/422/485 with hardware and software handshaking                                  |      |   |                                       |
|    |                                | 8 IR/Serial, 8 relay, 8 versiport I/O ports                                                |      |   |                                       |
|    |                                | Full Unicode (multi-language) support                                                      |      |   |                                       |
|    |                                | 1 space rack mountable                                                                     |      |   |                                       |
|    |                                |                                                                                            |      |   |                                       |
|    |                                | Processor 1 x Analog Griffin ADSP-SC587 dual core DSP @500MHz                              | Unit | 1 | SYMETRIX Radius NX 12 x 8             |
|    |                                | Raw processing 500 MIPS, 6 GFLOPS, 2 GMACS                                                 |      |   |                                       |
|    |                                | Dynamic range (A/D/A) > 114 dB, A-weighted                                                 |      |   |                                       |
|    |                                | Latency (A/D/A) 1.04ms, inputs routed to outputs                                           |      |   |                                       |
|    |                                | Delay memory 174 mono seconds                                                              |      |   |                                       |
|    |                                | Max stored presets 1000                                                                    |      |   |                                       |
|    |                                |                                                                                            |      |   |                                       |
| 12 | Core Router                    | Height—1.71 in. (43.43 mm)                                                                 | Unit | 1 | CISCO ASR1001-X                       |

|    |    |                                                                                                         |                                                                                                                |      |   |
|----|----|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------|---|
|    |    | Width—17.3 in. (439.42 mm)                                                                              |                                                                                                                |      |   |
|    |    | Depth—22.50 in. (571.5 mm)                                                                              |                                                                                                                |      |   |
|    |    | 4 GB DRAM (upgradeable 16GB DRAM)                                                                       |                                                                                                                |      |   |
|    |    | Supports two USB flash memory                                                                           |                                                                                                                |      |   |
|    |    | Secure tokens                                                                                           |                                                                                                                |      |   |
|    |    | 400-GB SATA SSD                                                                                         |                                                                                                                |      |   |
|    |    | 6 x SFP ports, 2 x SFP+ ports                                                                           |                                                                                                                |      |   |
|    |    | Rackmount                                                                                               |                                                                                                                |      |   |
|    |    | Support increase their network capacity and services without a hardware upgrade                         |                                                                                                                |      |   |
|    |    | Support upgrade individual software components in less time.                                            |                                                                                                                |      |   |
|    |    | Support Advanced services can operate at high speeds without the need for additional hardware or blades |                                                                                                                |      |   |
|    |    | Upgradable through software-activated feature license to 10, 20, or 36 Gbps                             |                                                                                                                |      |   |
|    |    | Support Bandwidth 5 to 36 Gbps                                                                          |                                                                                                                |      |   |
|    |    | Support Share the same control memory on route processor                                                |                                                                                                                |      |   |
|    |    | Include Embedded hardware-based encryption                                                              |                                                                                                                |      |   |
|    |    | Include two shared port adapters                                                                        |                                                                                                                |      |   |
|    |    | Include license upgrade 20G                                                                             |                                                                                                                |      |   |
| 15 | 13 | Switch                                                                                                  | Total 10/100/1000 or Multigigabit copper ports : 24<br>Multigigabit UPOE (100 Mbps or 1, 2.5, 5, or 10 Gbps)   | Unit | 1 |
|    |    |                                                                                                         | Default AC power supply : 1100W AC                                                                             |      |   |
|    |    |                                                                                                         | Available PoE power : 490W                                                                                     |      |   |
|    |    |                                                                                                         | StackWise-480 : Yes                                                                                            |      |   |
|    |    |                                                                                                         | StackPower : Yes                                                                                               |      |   |
|    |    |                                                                                                         | Default power supply : PWR-C1-1100WAC                                                                          |      |   |
|    |    |                                                                                                         | Switching capacity : 640 Gbps on 24-port Multigigabit Ethernet model                                           |      |   |
|    |    |                                                                                                         | Stacking bandwidth : 480 Gbps                                                                                  |      |   |
|    |    |                                                                                                         | Total number of MAC addresses : 32.000                                                                         |      |   |
|    |    |                                                                                                         | Total number of IPv4 routes (ARP plus learned routes) : 32,000 (24,000 direct routes and 8000 indirect routes) |      |   |
|    |    |                                                                                                         | IPv4 routing entries : 32.000                                                                                  |      |   |
|    |    |                                                                                                         | IPv6 routing entries : 16.000                                                                                  |      |   |
|    |    |                                                                                                         | Multicast routing scale : 8000                                                                                 |      |   |
|    |    |                                                                                                         | QoS scale entries : 5120                                                                                       |      |   |
|    |    |                                                                                                         | ACL scale entries : 5120                                                                                       |      |   |
|    |    |                                                                                                         | Packet buffer per SKU : 32 MB buffer for 24-port Multigigabit                                                  |      |   |
|    |    |                                                                                                         | FNF entries : 128,000 flows on 24-port Multigigabit                                                            |      |   |
|    |    |                                                                                                         | DRAM : 8 GB                                                                                                    |      |   |
|    |    |                                                                                                         | Flash : 16 GB                                                                                                  |      |   |
|    |    |                                                                                                         | VLAN IDs : 4000                                                                                                |      |   |
|    |    |                                                                                                         | Total Switched Virtual Interfaces (SVIs) : 2000                                                                |      |   |
|    |    |                                                                                                         | Jumbo frames : 9198 bytes                                                                                      |      |   |
|    |    |                                                                                                         | Total routed ports per 9300 Series stack : 208                                                                 |      |   |
|    |    |                                                                                                         | Wireless bandwidth per switch : Up to 48 Gbps on 24-port Gigabit Ethernet model                                |      |   |
|    |    |                                                                                                         | Forwarding rate : 154.76 Mpps                                                                                  |      |   |
|    |    |                                                                                                         | Dimensions (H x W x D) : 1.73 x 17.5 x 17.5 Inches                                                             |      |   |
|    |    |                                                                                                         | Weight : 16.33 Pounds                                                                                          |      |   |
|    |    |                                                                                                         |                                                                                                                |      |   |

|          |                  |                                                                                                                                                                                           |      |   |                          |
|----------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|--------------------------|
|          |                  | Mean time between failures (hours) : 299.000                                                                                                                                              |      |   |                          |
|          |                  | Other Spesification :                                                                                                                                                                     |      |   |                          |
|          |                  | Support up to 480 Gbps of local stackable switching bandwidth                                                                                                                             |      |   |                          |
|          |                  | Support Flexible and dense uplink offerings with 1G, Multigigabit, 10G, 25G, and 40G                                                                                                      |      |   |                          |
|          |                  | Leading PoE capabilities with up to 384 ports of PoE per stack, 60W Cisco UPOE, and PoE+                                                                                                  |      |   |                          |
|          |                  | Support IPv6 support in hardware, providing wire-rate forwarding for IPv6 networks                                                                                                        |      |   |                          |
|          |                  | Support Software – defined access                                                                                                                                                         |      |   |                          |
|          |                  | Included 24-port mGig and UPOE, Network Advantage                                                                                                                                         |      |   |                          |
|          |                  | Include redundant power supply                                                                                                                                                            |      |   |                          |
|          |                  | Include stacking cable 50 cm                                                                                                                                                              |      |   |                          |
|          |                  | Include stack power 30 cm                                                                                                                                                                 |      |   |                          |
|          |                  | Include license DNA 3 years                                                                                                                                                               |      |   |                          |
|          |                  | Include network module 8 port 10 GE                                                                                                                                                       |      |   |                          |
| 14<br>16 | Rack Cabinet 42U | Dimensi External (mm) 800 x 1200 x 2040                                                                                                                                                   | Unit | 1 | Fortuna Rack Cabinet 42U |
|          |                  | Internal Depth (mm) 1120                                                                                                                                                                  |      |   |                          |
|          |                  | Weight (kg) 225                                                                                                                                                                           |      |   |                          |
|          |                  | Enclosure Racking System terbuat dari Galvanis Metal, Cold Steel (SGHC) dan painting Finishing Powder Coating                                                                             |      |   |                          |
|          |                  | Top Cover Cable Way (4 lubang), sudah dipersiapkan untuk pemasangan Cable Ladder atau Tray pada sistem pemasangan Data Center                                                             |      |   |                          |
|          |                  | Front door double perforated dengan swinghandle                                                                                                                                           |      |   |                          |
|          |                  | Back door double perforated dengan swinghandle                                                                                                                                            |      |   |                          |
|          |                  | Pintu Samping dengan Cylinder Key lock dan termasuk juga Slide latch untuk setiap kunci pintu samping. Panels lift samping mudah untuk diakses                                            |      |   |                          |
|          |                  | Di seluruh akses cabinet dilengkapi dengan Fastening Down Holes di frame bagian bawah dengan Cable Way untuk melindungi kabel dan mempermudah dalam instalasi                             |      |   |                          |
|          |                  | Grounding System, Cable Way dan Cabinet Lamp sudah tersedia                                                                                                                               |      |   |                          |
|          |                  | Tambahan Vertical Cable Manager dengan tipe Swing frame sehingga memudahkan untuk pemasangan dan perawatan kabel                                                                          |      |   |                          |
|          |                  | Power distribution unit ( PDU ), 12 Stop Kontak DIN 49440, input 16A plug DIN 49441 dengan mempunyai Proteksi Terhadap Petir dan dilengkapi dengan Lampu & Over Current Protection 16 amp |      |   |                          |
|          |                  | Telah tersedia 4 jacking feet dengan max rating up to 1.000 kg dan 6 fan (1140 CFM) dilengkapi dengan fan guard, sudah terpasang di Cabinet ini                                           |      |   |                          |
|          |                  | Terdapat 50 buah Cage nut M6 + 50 buah baut M6                                                                                                                                            |      |   |                          |
|          |                  | Sangat disarankan untuk pemakaian Blade Server atau perangkat Service yang membutuhkan Airflow yang baik                                                                                  |      |   |                          |
|          |                  | Rack telah tersedia dalam keadaan siap pakai disertai dengan Garansi 15 tahun                                                                                                             |      |   |                          |

|          |                     |                                                                                                                                                                                                                    |      |   |                                       |
|----------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|---------------------------------------|
| 15<br>17 | Wallmount Plate     | FacePlate 2 hole                                                                                                                                                                                                   | Unit | 1 | Wallmount Plate RJ45 + RJ11 Panasonic |
|          |                     | Modular RJ45 Cat6                                                                                                                                                                                                  |      |   |                                       |
|          |                     | Modular RJ11                                                                                                                                                                                                       |      |   |                                       |
|          |                     | Inbow / Outbow                                                                                                                                                                                                     |      |   |                                       |
| 16<br>18 | Access Point Meraki | 2.4 GHz 802.11b/g/n client access radio                                                                                                                                                                            | Unit | 2 | Access Point - Cisco Meraki MR33      |
|          |                     | 5 GHz 802.11a/n/ac client access radio                                                                                                                                                                             |      |   |                                       |
|          |                     | 2.4 GHz & 5 GHz WIDS/WIPS, spectrum analysis, and location analytics radio                                                                                                                                         |      |   |                                       |
|          |                     | 2.4 GHz Bluetooth Low Energy (BLE) radio with beacon and BLE scanning support                                                                                                                                      |      |   |                                       |
|          |                     | Concurrent operations of all four radios                                                                                                                                                                           |      |   |                                       |
|          |                     | Supported frequency bands (country-specific restrictions apply):<br>2.412-2.484 GHz<br>5.150-5.250 GHz (UNII-1)<br>5.250-5.350 GHz (UNII-2)<br>5.470-5.600, 5.660-5.725 GHz (UNII-2e)<br>5.725 -5.825 GHz (UNII-3) |      |   |                                       |
|          |                     | 2 x 2 multiple input, multiple output (MIMO) with two spatial streams                                                                                                                                              |      |   |                                       |
|          |                     | SU-MIMO and MU-MIMO support                                                                                                                                                                                        |      |   |                                       |
|          |                     | Maximal ratio combining (MRC) & Beamforming                                                                                                                                                                        |      |   |                                       |
|          |                     | 20 and 40 MHz channels (802.11n), 20, 40, and 80 MHz channels (802.11ac)                                                                                                                                           |      |   |                                       |
|          |                     | Up to 256 QAM on both 2.4 GHz and 5 GHz bands                                                                                                                                                                      |      |   |                                       |
|          |                     | Packet aggregation                                                                                                                                                                                                 |      |   |                                       |
|          |                     | Power over Ethernet: 37 - 57 V (802.3af compatible)                                                                                                                                                                |      |   |                                       |
|          |                     | Alternative 12 V DC input                                                                                                                                                                                          |      |   |                                       |
|          |                     | Power consumption: 11W max (802.3af)                                                                                                                                                                               |      |   |                                       |
|          |                     | Power over Ethernet injector and DC adapter sold separately                                                                                                                                                        |      |   |                                       |
|          |                     | Operating temperature: 32 °F to 104 °F (0 °C to 40 °C)                                                                                                                                                             |      |   |                                       |
|          |                     | Humidity: 5 to 95% non-condensing                                                                                                                                                                                  |      |   |                                       |
|          |                     | Dimension 8.5" x 4.3" x 1.3" (215 mm x 110 mm x 32 mm), not including deskmount feet or mount plate                                                                                                                |      |   |                                       |
|          |                     | Weight: 13.2 oz (376.5 g)                                                                                                                                                                                          |      |   |                                       |
|          |                     | Integrated omni-directional antennas (3.8 dBi gain at 2.4 GHz, 3.9 dBi gain at 5 GHz)                                                                                                                              |      |   |                                       |
|          |                     | 1x 10/100/1000 BASE-T Ethernet (RJ45)                                                                                                                                                                              |      |   |                                       |
|          |                     | 1x DC power connector (5.5 mm x 2.5 mm, center positive)                                                                                                                                                           |      |   |                                       |
|          |                     | Integrated layer 7 firewall with mobile device policy management                                                                                                                                                   |      |   |                                       |
|          |                     | Cloud managed access point                                                                                                                                                                                         |      |   |                                       |
|          |                     | 2x2 MU-MIMO 802.11ac Wave 2                                                                                                                                                                                        |      |   |                                       |
|          |                     | 1.3 Gbps* aggregate dual-band frame rate                                                                                                                                                                           |      |   |                                       |
|          |                     | Integrated Bluetooth Low Energy Beacon and scanning radio                                                                                                                                                          |      |   |                                       |
|          |                     | Integrated enterprise security and guest access                                                                                                                                                                    |      |   |                                       |

|          |                       |                                                                                                                                                                                                                 |      |   |                                                |
|----------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|------------------------------------------------|
| 19<br>21 | Access Control System | Model : Time Attendance & Access Control                                                                                                                                                                        | Unit | 3 | Access Control System - FingerSpot Neo A-152NC |
|          |                       | Fingerprint Sensor Type : Optical Without Gel                                                                                                                                                                   |      |   |                                                |
|          |                       | Face Sensor Type : No                                                                                                                                                                                           |      |   |                                                |
|          |                       | Display : 2.4" TFT Color Screen                                                                                                                                                                                 |      |   |                                                |
|          |                       | Software : Fingerspot Personnel                                                                                                                                                                                 |      |   |                                                |
|          |                       | Dimension : 103 x 103 x 31 mm                                                                                                                                                                                   |      |   |                                                |
|          |                       | Fingerprint : Real 3,000                                                                                                                                                                                        |      |   |                                                |
|          |                       | Face : -                                                                                                                                                                                                        |      |   |                                                |
|          |                       | Card : 3                                                                                                                                                                                                        |      |   |                                                |
|          |                       | User : 3                                                                                                                                                                                                        |      |   |                                                |
|          |                       | Transaction / Record : 100                                                                                                                                                                                      |      |   |                                                |
|          |                       | Type : Fingerprint, Card, Password                                                                                                                                                                              |      |   |                                                |
|          |                       | Verification Time (sec) : < 1 sec                                                                                                                                                                               |      |   |                                                |
|          |                       | RFID: 64-bit, 125kHz : Yes                                                                                                                                                                                      |      |   |                                                |
|          |                       | MIFARE: MF1S50/S70, 13.56MHz : No                                                                                                                                                                               |      |   |                                                |
|          |                       | Type : TCP/IP, USB Host (Flashdisk)                                                                                                                                                                             |      |   |                                                |
|          |                       | T9 Input : No                                                                                                                                                                                                   |      |   |                                                |
|          |                       | Self Service Query : Yes                                                                                                                                                                                        |      |   |                                                |
|          |                       | Self Service Reader : No                                                                                                                                                                                        |      |   |                                                |
|          |                       | Cloud Function : Yes                                                                                                                                                                                            |      |   |                                                |
|          |                       | Camera : No                                                                                                                                                                                                     |      |   |                                                |
|          |                       | Schedule Bell : Yes                                                                                                                                                                                             |      |   |                                                |
|          |                       | Short Messaging : No                                                                                                                                                                                            |      |   |                                                |
|          |                       | Electric Lock : Yes                                                                                                                                                                                             |      |   |                                                |
|          |                       | Release Button : Yes                                                                                                                                                                                            |      |   |                                                |
|          |                       | Door Sensor : Yes                                                                                                                                                                                               |      |   |                                                |
|          |                       | Alarm : Yes                                                                                                                                                                                                     |      |   |                                                |
|          |                       | Antipassback : Yes                                                                                                                                                                                              |      |   |                                                |
|          |                       | Timezone, Group, Unlock Combination : Yes                                                                                                                                                                       |      |   |                                                |
|          |                       | Power Input : DC 12V 1A                                                                                                                                                                                         |      |   |                                                |
|          |                       | Backup Battery : No                                                                                                                                                                                             |      |   |                                                |
|          |                       | Wall Mounted : Yes                                                                                                                                                                                              |      |   |                                                |
|          |                       | Temperature (°C) : 0 - 45                                                                                                                                                                                       |      |   |                                                |
|          |                       | Humidity (%) : 20-80                                                                                                                                                                                            |      |   |                                                |
| 20<br>22 | CCTV IP Cam 1080p     | Operating Conditions: -30 °C to 50 °C (-22 °F to 122 °F), humidity: 95% or less (non-condensing)                                                                                                                | Set  | 1 | HikVision Camera IP Dome DS-2CD2146G1-I(S)     |
|          |                       | Power Supply: 12 VDC ± 25%, 5.5 mm coaxial power plug ,PoE (802.3af, class 3)                                                                                                                                   |      |   |                                                |
|          |                       | Power Consumption: 12 VDC, 0.7 A, max: 8.5 W                                                                                                                                                                    |      |   |                                                |
|          |                       | PoE: (802.3af, 36 V to 57 V), 0.3 A to 0.2 A, max: 10 W                                                                                                                                                         |      |   |                                                |
|          |                       | Impact Protection: IK10                                                                                                                                                                                         |      |   |                                                |
|          |                       | Weather Proof: IP67 (If the camera is installed outdoor, the bracket DS-1253ZJ-* should be used together with other pendant mounting bracket or wall mounting bracket to reduce IR reflective in the rainy day) |      |   |                                                |
|          |                       | IR Range: Up to 30m                                                                                                                                                                                             |      |   |                                                |
|          |                       | Dimensions: Camera: Ø 121.4 x 92.2 mm (Ø 4.8" x                                                                                                                                                                 |      |   |                                                |

|          |             |                                                                                                                                                                                                           |      |   |                            |
|----------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|----------------------------|
|          |             | 3.6")                                                                                                                                                                                                     |      |   |                            |
|          |             | Weight: Camera: 600 g (1.3 lb.) With package: 760 g (1.7 lb.)                                                                                                                                             |      |   |                            |
|          |             | Image Sensor: 1/2.7" Progressive Scan CMOS                                                                                                                                                                |      |   |                            |
|          |             | Signal System: PAL/NTSC                                                                                                                                                                                   |      |   |                            |
|          |             | Min. Illumination: Color: 0.007 Lux @ (F1.2, AGC ON), 0.012 Lux @ (F1.6, AGC ON)                                                                                                                          |      |   |                            |
|          |             | Shutter time: 1/3 s to 1/100,000 s                                                                                                                                                                        |      |   |                            |
|          |             | Slow shutter: Support                                                                                                                                                                                     |      |   |                            |
|          |             | Lens: 2.8 mm, horizontal FOV: 104°, vertical FOV: 58°, diagonal FOV: 124° 4 mm, horizontal FOV: 83°, vertical FOV: 44°, diagonal FOV: 99° 6 mm, horizontal FOV: 51°, vertical FOV: 28°, diagonal FOV: 58° |      |   |                            |
|          |             | Lens Mount: M12                                                                                                                                                                                           |      |   |                            |
|          |             | Adjustment Range: Pan: 0° to 355°, tilt: 0° to 75°, rotate: 0° to 355°                                                                                                                                    |      |   |                            |
|          |             | Day& Night: IR cut filter with auto switch                                                                                                                                                                |      |   |                            |
|          |             | Wide Dynamic Range: 120 dB                                                                                                                                                                                |      |   |                            |
|          |             | Digital noise reduction: 3D DNR                                                                                                                                                                           |      |   |                            |
|          |             | Focus: Fixed                                                                                                                                                                                              |      |   |                            |
|          |             | Video Compression: H.265/H.264/MJPEG                                                                                                                                                                      |      |   |                            |
|          |             | Video bit rate: 32Kbps~16Mbps                                                                                                                                                                             |      |   |                            |
|          |             | Max. Image Resolution: 2688 × 1520                                                                                                                                                                        |      |   |                            |
|          |             | Frame Rate:<br>50Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720)<br>60Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)                                                                                 |      |   |                            |
|          |             | Sub Stream:<br>50Hz: 25 fps (704 × 576, 640 × 480, 352 × 288)<br>60Hz: 30 fps (704 × 480, 640 × 480, 352 × 240)                                                                                           |      |   |                            |
|          |             | Image Enhancement: BLC/3D DNR                                                                                                                                                                             |      |   |                            |
|          |             | Image Settings: Saturation, brightness, contrast, sharpness, AGC, white balance adjustable by client software or web browser                                                                              |      |   |                            |
|          |             | ROI: Support 1 fixed region for main stream and sub stream separately                                                                                                                                     |      |   |                            |
|          |             | Day/Night Switch:<br>Day/Night/Auto/Schedule/Triggered by Alarm In(S)                                                                                                                                     |      |   |                            |
|          |             | Network Storage: microSD/SDHC/SDXC card (128G), local storage and NAS (NFS,SMB/CIFS), ANR                                                                                                                 |      |   |                            |
|          |             | Protocols: TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour                                                          |      |   |                            |
|          |             | System Compatibility: ONVIF (Profile S, Profile G),ISAPI                                                                                                                                                  |      |   |                            |
|          |             | Communication Interface: 1 RJ45 10M/100M self-adaptive Ethernet port                                                                                                                                      |      |   |                            |
|          |             | On-board storage: Built-in Micro SD/SDHC/SDXC slot, up to 128 GB                                                                                                                                          |      |   |                            |
|          |             | Reset Button: Yes                                                                                                                                                                                         |      |   |                            |
| 21<br>23 | NVR HD 1080 | Two-way audio input : 1-ch, RCA (2.0 Vp-p, 1kΩ)                                                                                                                                                           | Unit | 1 | Hikvision NVR DS-7616NI-Q2 |
|          |             | IP video input : 16-ch                                                                                                                                                                                    |      |   |                            |
|          |             | Incoming bandwidth: 160Mbps                                                                                                                                                                               |      |   |                            |

|    |                                     |                                                                |      |    |            |
|----|-------------------------------------|----------------------------------------------------------------|------|----|------------|
|    |                                     | 1.8GHz dual-core Intel Core i5 with 3MB L3 cache               |      |    |            |
|    |                                     | 8GB of 1600MHz LPDDR3 SDRAM                                    |      |    |            |
|    |                                     | 256GB PCIe-based SSD                                           |      |    |            |
|    |                                     | Intel HD                                                       |      |    |            |
|    |                                     | MacOS                                                          |      |    |            |
| 24 | Alat Komunikasi Smartphone / tablet | Super AMOLED capacitive touchscreen, 16M colors                | Unit | 12 | Samsung A7 |
|    |                                     | 6.0 inches, 91.4 cm <sup>2</sup> (~74.4% screen-to-body ratio) |      |    |            |
|    |                                     | Android OS minimal 8 Oreo                                      |      |    |            |
|    |                                     | 64 GB, 4 GB RAM                                                |      |    |            |
|    |                                     | Exynos 7885 Octa (14 nm)                                       |      |    |            |
|    |                                     | Octa-core (2x2.2 GHz Cortex-A73 & 6x1.6 GHz Cortex-A53)        |      |    |            |
|    |                                     | Mali-G71                                                       |      |    |            |
| 25 | Tablet                              | IOS OS                                                         | Unit | 1  | Apple Ipad |
|    |                                     | 9,7 inch                                                       |      |    |            |
|    |                                     | 32GB                                                           |      |    |            |

Semarang, 1 April 2019

PT. Media Sarana Data



**Priyo Suyono**  
Direktur

|    |    |                                                                                                                                            |                                       |      |                                        |                   |
|----|----|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------|----------------------------------------|-------------------|
|    |    | Outgoing bandwidth: 80Mbps                                                                                                                 |                                       |      |                                        |                   |
|    |    | HDMI Output: 1-ch, resolution:4K (3840 × 2160)/30Hz,1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 ×1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz. |                                       |      |                                        |                   |
|    |    | Audio Output: 1-ch, RCA (Linear, 1kΩ)                                                                                                      |                                       |      |                                        |                   |
|    |    | VGA Output: 1-ch, resolution: 1920*1080P/60Hz, 1280*1024/60Hz, 1280*720/60Hz, 1024*768/60Hz                                                |                                       |      |                                        |                   |
|    |    | Decoding format:<br>H.265/H.265+/H.264/H.264+/MPEG4                                                                                        |                                       |      |                                        |                   |
|    |    | Capability: 1-ch @ 8 MP / 4-ch @ 1080p                                                                                                     |                                       |      |                                        |                   |
|    |    | Live view / Playback:<br>8MP/6MP/5MP/3MP/1080p/UXGA/720p/VGA/4CIF/ DCIF/2CIF/CIF/QCIF                                                      |                                       |      |                                        |                   |
|    |    | SATA: 2 SATA interfaces                                                                                                                    |                                       |      |                                        |                   |
|    |    | Capacity: Up to 6TB capacity for each HDD                                                                                                  |                                       |      |                                        |                   |
|    |    | Network Interface: 1RJ-45 10/100/1000Mbps self-adaptive Ethernet interface                                                                 |                                       |      |                                        |                   |
|    |    | USB Interface: 2, USB2.0                                                                                                                   |                                       |      |                                        |                   |
|    |    | Working Temperature: -10 oC ~ +55 oC (+14 oF~ + 131 oF)                                                                                    |                                       |      |                                        |                   |
|    |    | Working Humidity: 10 % ~ 90 %                                                                                                              |                                       |      |                                        |                   |
|    |    | Chassis: 1U chassis                                                                                                                        |                                       |      |                                        |                   |
|    |    | Dimensions: 385 × 315 × 52 mm (15.2"x 12.4" × 2.0")                                                                                        |                                       |      |                                        |                   |
|    |    | Weight(without HDD): ≤ 1 kg (2.2 lb)                                                                                                       |                                       |      |                                        |                   |
|    |    |                                                                                                                                            |                                       |      |                                        |                   |
|    |    | Antarmuka : SATA 6Gb/s                                                                                                                     | Unit                                  | 1    | HDD 2TB - Seagate Skyhawk Surveillance |                   |
|    |    | Ruang Hard Disk yang Didukung : Hingga 8                                                                                                   |                                       |      |                                        |                   |
|    |    | Kamera yang Didukung : Hingga 64                                                                                                           |                                       |      |                                        |                   |
|    |    | OD Laju Transfer Terus Menerus Maks. : 180 MB/s                                                                                            |                                       |      |                                        |                   |
|    |    | Cache : 64 MB                                                                                                                              |                                       |      |                                        |                   |
|    |    | Tahan Noda : Ya                                                                                                                            |                                       |      |                                        |                   |
|    |    | Siklus Load/Unload : 300.000                                                                                                               |                                       |      |                                        |                   |
|    |    | Kesalahan Baca yang Tidak Bisa Dipulihkan per Bit yang Dibaca, Maks : 1 per 10E14                                                          |                                       |      |                                        |                   |
|    |    | Jam Dinyalakan per Tahun (24×7) : 8.760                                                                                                    |                                       |      |                                        |                   |
|    |    | Batas Laju Beban Kerja (WRL) : 180                                                                                                         |                                       |      |                                        |                   |
|    |    | MTBF : 1.000.000 jam                                                                                                                       |                                       |      |                                        |                   |
|    |    | Garansi, Terbatas (tahun) : 3                                                                                                              |                                       |      |                                        |                   |
|    |    | Operasi (ambien, min °C) : 0                                                                                                               |                                       |      |                                        |                   |
|    |    | Operasi (casing hard disk, maks °C) : 70                                                                                                   |                                       |      |                                        |                   |
|    |    | Tidak beroperasi (ambien, min °C) : -40                                                                                                    |                                       |      |                                        |                   |
|    |    |                                                                                                                                            |                                       |      |                                        |                   |
| 24 | 22 | PC Desktop                                                                                                                                 | Processor: Intel Core i7-7700T        | Unit | 20                                     | LENOVO PC Desktop |
|    |    |                                                                                                                                            | RAM: 8GB DDR4                         |      |                                        |                   |
|    |    |                                                                                                                                            | HDD: 1TB                              |      |                                        |                   |
|    |    |                                                                                                                                            | ODD: DVDRW                            |      |                                        |                   |
|    |    |                                                                                                                                            | VGA: Intel HD Graphics                |      |                                        |                   |
|    |    |                                                                                                                                            | Konektivitas: Wifi + Bluetooth + NIC  |      |                                        |                   |
|    |    |                                                                                                                                            | Ukuran Layar: 23 Inch                 |      |                                        |                   |
|    |    |                                                                                                                                            | Sistem Operasi: Windows 10 Pro 64 bit |      |                                        |                   |
|    |    |                                                                                                                                            |                                       |      |                                        |                   |
| 25 | 23 | Laptop                                                                                                                                     | 13.3 - Inch (diagonal) LED            | Unit | 5                                      | Macbook Air       |

## TIMELINE SCHEDULE

Pekerjaan : Pengadaan Peralatan Studio Visual Sarana dan Prasarana Situation Room

| No.        | Deskripsi                                                           | Bulan 1 |    |    |    | Bulan 2 |    |    |    | Bulan 3 |     |     |     | Keterangan |
|------------|---------------------------------------------------------------------|---------|----|----|----|---------|----|----|----|---------|-----|-----|-----|------------|
|            |                                                                     | M1      | M2 | M3 | M4 | M5      | M6 | M7 | M8 | M9      | M10 | M11 | M12 |            |
| <b>I</b>   | <b>Pre Instalasi</b>                                                |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 1          | Persiapan & Pengadaan Barang                                        |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 2          | Pemeriksaan dan Pengujian Barang                                    |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 3          | Pemeriksaan alat kerja                                              |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 4          | Mobilisasi barang                                                   |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 5          | Mobilisasi pekerja                                                  |         |    |    |    |         |    |    |    |         |     |     |     |            |
| <b>II</b>  | <b>Bidang Pemasangan</b>                                            |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 1          | Pemeriksaan site dan bidang                                         |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 2          | Kordinasi wilayah / site                                            |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 3          | Marking dan ukur bidang                                             |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 4          | Pembuatan utilitas kelistrikan pendukung                            |         |    |    |    |         |    |    |    |         |     |     |     |            |
| <b>III</b> | <b>Instalasi Audio &amp; Visual System</b>                          |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 1          | Penarikan kabel distribusi video                                    |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 2          | Penarikan kabel distribusi audio                                    |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 3          | Pemasangan Bracket & Pendukungnya                                   |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 4          | Pemasangan Videowall & Perangkat Pendukungnya                       |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 5          | Pemasangan perangkat Video processing & Perangkat Pendukungnya      |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 6          | Pemasangan perangkat Audio processing & Perangkat Pendukungnya      |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 7          | Pemasangan perangkat Wireless Presentation & Perangkat Pendukungnya |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 8          | Pemasangan perangkat Audio System & Perangkat Pendukungnya          |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 9          | Koneksi power / listik                                              |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 10         | Koneksi seluruh kabel distribusi signal video dan audio             |         |    |    |    |         |    |    |    |         |     |     |     |            |
| <b>IV</b>  | <b>Instalasi Networking</b>                                         |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 1          | Penarikan kabel Jaringan PC & CCTV                                  |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 2          | Instalasi Rack Server                                               |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 3          | Instalasi Router                                                    |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 4          | Instalasi Switch                                                    |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 5          | Instalasi UPS                                                       |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 6          | Instalasi CCTV & Perangkat Pendukungnya                             |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 7          | Instalasi PC Desktop & Pendukungnya                                 |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 8          | Instalasi Access Control System & Pendukungnya                      |         |    |    |    |         |    |    |    |         |     |     |     |            |
| <b>V</b>   | <b>Setting System</b>                                               |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 1          | Setting Bracket Allignment & Perapihan Videowall                    |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 2          | Setting Color dan Kalibrasi Monitor Videowall                       |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 3          | Setting Perangkat Video dan Audio System                            |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 4          | Setting Perangkat Network System                                    |         |    |    |    |         |    |    |    |         |     |     |     |            |
| <b>VI</b>  | <b>Testing &amp; Finishing</b>                                      |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 1          | Clearing Area                                                       |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 2          | Testing                                                             |         |    |    |    |         |    |    |    |         |     |     |     |            |
| 3          | User Training                                                       |         |    |    |    |         |    |    |    |         |     |     |     |            |

Semarang, 1 April 2019

PT. Media Sarana Data



**PT. MEDIA SARANA DATA**

**Priyo Suyono**  
Direktur

## PERENCANAAN METODE PELAKSANAAN

### Intisari

Metode pelaksanaan sebagai rumusan dalam pengendalian menyeluruh keseluruhan proses Pekerjaan Pengadaan Peralatan Studio Visual Sarana dan Prasarana Situation Room pada Biro Umum Sekretariat Daerah Provinsi Jawa Tengah. Pekerjaan Pengadaan Peralatan Studio Visual Sarana dan Prasarana Situation Room pada Biro Umum Sekretariat Daerah Provinsi Jawa Tengah, meliputi 6 bagian pekerjaan, yaitu Pre-Instalasi, Bidang Pemasangan, Instalasi Audio & Video System, Instalasi Networking, Setting System, dan Testing & Finishing.

### Minggu ke-1 sampai dengan Minggu ke-2 :

Persiapan dan Pengadaan Barang, serta Pemeriksaan dan Pengujian Barang.

### Minggu ke-2 :

Pemeriksaan alat kerja, Mobilisasi barang dan Pekerja.

### Minggu ke-3 :

Pemeriksaan site dan bidang, Koordinasi wilayah / site, Marking dan ukur bidang, Pembuatan utilitas dan penarikan pendukung.

### Minggu ke-4 :

Penarikan kabel distribusi video dan audio, Pemasangan Bracket & Pendukungnya.

### Minggu ke-5 :

Pemasangan Videowall & Perangkat Pendukungnya, dan Pemasangan perangkat Video processing & Perangkat Pendukungnya.

### Minggu ke-6 :

Pemasangan perangkat Audio processing & Perangkat Pendukungnya, Pemasangan perangkat Wireless Antenna & Perangkat Pendukungnya, Pemasangan perangkat Audio System & Perangkat Pendukungnya.

### Minggu ke-6 sampai dengan Minggu ke-7:

Penarikan kabel Jaringan PC & CCTV.

### Minggu ke-7 :

Koneksi power / listrik, Koneksi seluruh kabel distribusi signal video dan audio, Instalasi Rack Server, Instalasi Router, Instalasi Switch dan Instalasi UPS.

### Minggu ke-8 :

Instalasi CCTV & Perangkat Pendukungnya, Instalasi Access Control System & Pendukungnya.

**Minggu ke-8 sampai dengan Minggu ke-10 :**

Instalasi PC Desktop & Pendukungnya.

**Minggu ke-11 :**

Setting Bracket Allignment & Perapihan Videowall, Setting Color dan Kalibrasi Monitor Videowall, Setting Perangkat Video dan Audio System, Setting Perangkat Network System.

**Minggu ke-12 :**

Clearing Area, Testing, dan User Training.

Semarang, 1 April 2019

**PT. Media Sarana Data**



**PT. MEDIA SARANA DATA**

**Privo Suyono**  
Direktur

**SURAT KUASA**

Yang bertanda tangan di bawah ini :

Nama : Priyo Suyono  
Jabatan : Direktur  
Alamat Tempat Tinggal : Jl. Semeru Dalam II No. 4, Semarang  
No KTP - el : 3374100103800005

Untuk selanjutnya disebut sebagai **Pemberi Kuasa**.

Dengan ini menerangkan dan memberi kuasa kepada :

Nama : Adhi Darminto  
Jabatan : General Manager  
Alamat Tempat Tinggal : Jl. Sri Rejeki VI/6, Semarang  
No KTP - el : 3374040111780002

Untuk selanjutnya sebagai **Penerima Kuasa**.

untuk menghadiri Pembuktian Kualifikasi terhadap tender Belanja Modal Peralatan dan Mesin Pengadaan Peralatan Studio Visual Sarana dan Prasarana Situation Room.

Penerima kuasa dapat melakukan tindakan-tindakan lainnya yang penting dan berguna untuk kepentingan tender tersebut dan melakukan hal-hal yang selayaknya dilakukan oleh seorang penerima kuasa sesuai dengan peraturan perundang-undangan.

Surat kuasa ini diberikan dengan hak substitusi baik sebagian maupun seluruhnya.

Semarang, 1 April 2019

Penerima Kuasa



**Adhi Darminto**  
General Manager

Pemberi Kuasa



**Priyo Suyono**  
Direktur



# PT. Cipta Alpha Omega

No Surat : 03/SDK/CAO/III/2019  
Perihal : Surat Dukungan

Kepada Yth,  
Pokja Pemilihan 2 Biro Administrasi Pengadaan Barang/Jasa Setda Provinsi Jawa Tengah  
Gedung D Setda Provinsi Jawa Tengah  
Jl. Pahlawan 9 Semarang

Yang bertanda tangan di bawah ini :

Nama : Rachmad Nofendi  
Jabatan : Direktur  
Perusahaan : PT Cipta Alpha Omega  
Alamat Perusahaan : Jl. Pantai Indah Barat PIK Avenue Mall Lt.6 No.1 RT.005 RW.006, Kamal Muara,  
Penjaringan, Jakarta Utara, DKI Jakarta

Sebagai Distributor di Indonesia untuk produk merk Kramer type Kramer CLS-AOCH-66 memberikan dukungan kepada :

Nama Perusahaan : PT. Media Sarana Data  
Alamat Perusahaan : Jl. Daradasih No. 11A, Patangpuluhan, Wirobrajan, Yogyakarta 55251

Untuk pekerjaan pengadaan : Pengadaan Peralatan Studio Visual Sarana dan Prasarana Situation Room

Surat dukungan ini meliputi :

- Barang yang ditawarkan 100% baru/ bukan barang rekondisi, bukan dari pasar gelap/ blackmarket.
- Memberikan layanan purna jual.
- Sanggup memberikan garansi suku cadang selama 2 (dua) tahun.
- Sanggup memberikan surat jaminan pemeliharaan selama 2 (dua) tahun, selama masa pemeliharaan sanggup memperbaiki kerusakan dalam waktu 7 (tujuh) hari kerja.

Demikian surat dukungan ini dibuat untuk dipergunakan sebagaimana mestinya.

Jakarta , 11 Maret 2019  
PT Cipta Alpha Omega



Rachmad Nofendi  
(Direktur)



# KRAMER

## CLS-AOCH

Active Optical High-Speed HDMI Cable -  
Low Smoke & Halogen Free

| HDMI | 4K/60 UHD (4:2:0)



Kramer's AOCH is an Active Optical HDMI Cable running 4K@60Hz (4:2:0), 4K@30Hz (4:4:4), over longer distances up to 100m (328ft), in a simple and practical way.

The AOCH cables are thinner, lighter and more flexible than copper or even standard optical cables. They provide transparent EDID and HDCP support without signal attenuation. They reduce the risk of EMI and RFI interference to provide a perfect solution for critical AV installations that demand the highest signal integrity

### FEATURES

- Video Resolution - 4K@60Hz (4:2:0), 4K @30Hz (4:4:4), 8-bit, full HD, 3D Deep Color across all lengths
- High Data Transfer Rate - Up to 10.2Gbps
- Embedded Audio - PCM 8-channel, Dolby Digital True HD and DTS-HD Master Audio
- High-Quality Connectors - 24K gold-plated, corrosion-resistant and best possible connectivity
- EMI & RFI Immunity
- No External Power - Powers the active units via the HDMI connector
- Thin Construction - 3.4mm (0.13") diameter
- Small Bending Radius - Only 6mm (0.24")
- Jacket Construction - Low smoke & halogen free
- RoHS 2011/65/EU Compliant
- Varied Selection of Lengths - Available in versions from 10 to 100m (33 to 328ft)



# KRAMER

## TECHNICAL SPECIFICATIONS

VIDEO RESOLUTION: 4K @60Hz 4:2:0, 4K@30Hz 4:4:4, 8Bit, full HD, 3D Deep Color

MAX. DATA RATE: Up to 10.2Gbps

SUPPORTED COLOR RGB, YCbCr, xvYCC, Adobe sRGB, sYCC601 SPACES:

EMBEDDED AUDIO: Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio™, DVD Audio, SA-CD

HDMI COMPLIANCE: HDCP 2.2, EDID, CEC

CONNECTORS: Male HDMI Type A, 24K gold-plated

CABLE STRUCTURE: Hybrid optical fiber cable

FIBER OPTIC: Multi-mode fiber

CONDUCTORS: 6x28AWG (7/0.127mm)

OUTER SHEATH MATERIAL: LSHF or plenum

OUTER SHEATH COLOR: Gray

OUTER SHEATH DIAMETER: 3.4mm

CABLE BENDING RADIUS: 6mm

CONNECTOR MAX. PULLING STRENGTH: 15lbs

MAX. COMPRESSION 500N (50kg, 110lbs)  
LOAD RESISTANCE:

POWER SUPPLY: No external power supply needed (draws current from the source). If source power is not sufficient, connect the AD-HM/HF/UAM – USB to HDMI power injector to an external power

POWER CONSUMPTION: 0.25W max

OPERATING TEMPERATURE: +32~+122°F (0~+50°C)

STORAGE TEMPERATURE: -22~+122°F (0~+50°C)

OPERATING HUMIDITY: 5 ~ 85%

LSHF (COMPLIANCE): IEC 60332-1, IEC 60754-1, IEC 61034-2

PLENUM (COMPLIANCE): CMP-OF

RoHS: 2011/65/ EU



# KRAMER

## CONFIGURATIONS

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|              |                                                                 |
|--------------|-----------------------------------------------------------------|
| CLS-AOCH-33  | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-50  | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-66  | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-98  | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-131 | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-164 | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-197 | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-230 | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-262 | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-295 | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |
| CLS-AOCH-328 | Active Optical High-Speed HDMI Cable - Low Smoke & Halogen Free |



Institute of  
Quality & Control

PT. CIPTA ALPHA

# CERTIFICATE

NO. I16625

This is to certify that  
the Quality Management System of

**Kramer Electronics Ltd.**

3 Am Veolamo St. Jerusalem, Israel

Was audited by IQC and found to be  
in compliance with the requirements of the standard:

**ISO 9001:2015**

This certificate is valid for  
the following scope of activities:

**Development, manufacturing and marketing of video,  
audio and control products & solutions**

This certificate is valid until: 23.12.2021

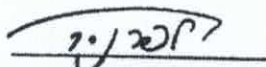
Certification cycle will end on: 23.12.2021

Date of first approval: 23.12.2003

This certificate is subject to the continuing satisfactory operation  
of the Management System and periodic auditing by IQC



25.06.2018  
Issue date

  
Nir Halpern, CEO

Institute of Quality & Control Ltd.  
Gavmizky St., Petah Tikva 9109617, Israel  
Tel: 03-9311553, Fax: 03-961140  
E-Mail: info@iqc.co.il, iqc@iqc.co.il

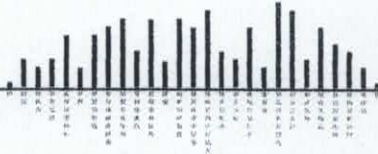


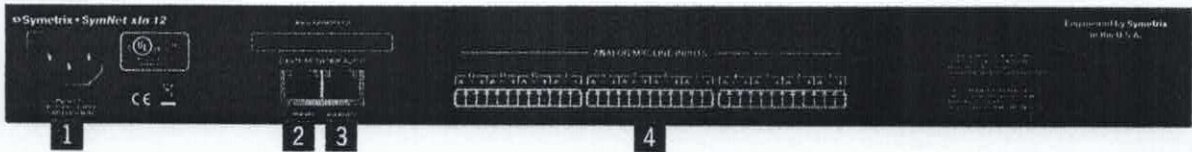


xIn 12

- Audio input (A/D) expander for Symetrix systems that capitalizes on the surplus DSP of a Radius, Edge, or Prism DSP to bring the overall system costs down.
- 12 mic/line inputs, including +48 VDC phantom power, with the industry leading performance specifications of Radius, Edge and Prism DSPs.
- Configured with Composer. No third-party software, archaic DIP switches, or complicated front panel menus.
- Network audio expansion using Dante protocol over standard IT networks. Ultra-low latency.
- Built-in switch for Dante provides direct connection to a Dante-enabled Symetrix system and daisy-chaining of up to 10 units without additional network hardware.

| Electrical Specifications |                                                              |
|---------------------------|--------------------------------------------------------------|
| Items                     | Specifications                                               |
| Sampling rate             | 48 kHz, ± 100 ppm.                                           |
| Frequency response (A/D)  | 20 Hz – 20 kHz, ± 0.5 dB.                                    |
| Channel separation (A/D)  | > 111 dB @ 1 kHz, +24 dBu.                                   |
| Dante cable               | Standard CAT6, maximum device to device length = 100 meters. |
| Connectors                | 3.81 mm terminal blocks.                                     |
| Number of inputs          | Twelve (12) switchable balanced mic or line level.           |
| Nominal input level       | +4 dBu with 20 dB of headroom.                               |
| Maximum input level       | +23 dBu.                                                     |
| Mic pre-amp gain          | 0, 11.8, 24, 44 or 54 dB switchable.                         |
| Mic pre-amp EIN           | < -127 dB with 150 Ohm source impedance.                     |
| CMRR                      | > 76 dB @ 1 kHz, unity gain.                                 |
| Input impedance           | 8k Ohms balanced, 4k Ohms unbalanced.                        |
| Phantom power (per input) | +48 VDC @ 10 mA maximum.                                     |
| Dynamic range             | > 116 dB, A-weighted.                                        |
| THD + Noise               | < -100 dB, unweighted; 1 kHz @ +22 dBu with 0 dB gain.       |
| Latency                   | 0.28 mS.                                                     |





- 1

**Power:** Accepts power from detachable IEC power cable (100-240 VAC, 50-60 Hz, 25 Watts max).
- 2

**Dante (Primary):** 1000 Base-T Ethernet port provides 128 (64x64) channels of Dante network audio.
- 3

**Dante (Secondary):** 1000 Base-T Ethernet port for redundant Dante network audio implementation.
- 4

**Analog Inputs:** Twelve channels of mic/line input with phantom power.



| Mechanical Specifications    |                                                                                                                    |                                                                                                                                                                                                                                           |
|------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Items                        | Specifications                                                                                                     | Remarks                                                                                                                                                                                                                                   |
| Space Required               | 1U (WDH: 18.91 in x 9.5 in x 1.72 in / 48.02 cm x 24.13 cm x 4.37 cm). Depth does not include connector allowance. | Allow at least 3 inch additional clearance for rear panel connections. Additional depth may be required depending upon your specific wiring and connections.                                                                              |
| Electrical                   | 100-240 VAC, 50/60 Hz, 25 Watts maximum universal input.                                                           | No line voltage switching required.                                                                                                                                                                                                       |
| Ventilation                  | Maximum recommended ambient operating temperature is 30 C / 86 F.                                                  | Ensure that the left and right equipment sides are unobstructed (5.08 cm, 2 in. minimum clearance). The ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths, curtains, etc. |
| Shipping Weight              | 12 lbs. (5.4 kg).                                                                                                  |                                                                                                                                                                                                                                           |
| Certifications or Compliance | UL 60065, cUL 60065, IEC 60065, EN 55103-1, EN 55103-2, FCC Part 15, RoHS.                                         |                                                                                                                                                                                                                                           |

Architect and Engineer Specifications: xln 12.

The device shall provide twelve analog mic/line inputs that are adjustable from line to mic level with coarse gain and phantom power. Levels and phantom power shall be controllable via online connection with software only. Audio connections shall be accessed via rear panel 3.81 mm terminal block connectors.

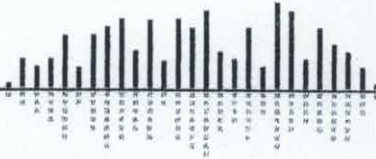
Network audio expansion shall be provided by the Dante protocol. Primary and Secondary Dante network audio connections shall be provided for redundant network implementation. Connectors shall be gigabit RJ45 utilizing CAT6 cable.

A designer software application shall be provided that operates on a Windows computer, with network interface installed, running Windows® XP or higher operating system. Computer connection for configuration shall be via a hosting DSP unit's rear panel Ethernet connector that communicates with the device via Dante.

The front panel shall include input signal level indicators as well as indicators for POWER and DANTE (PRIMARY and SECONDARY).

Audio conversion shall be 24-bit, 48 kHz and the dynamic range shall not be lower than 116 dB, A-weighted with a maximum input level of +23 dBu.

The device shall have an IEC power input socket for 120-240 VAC. The device shall meet UL/CSA and CE safety requirements and comply with CE and FCC Part 15 emissions limits. The device shall be RoHS compliant. The chassis shall be constructed of cold rolled steel and moulded plastic, and mount into a standard 19" 1U EIA rack. The device shall be a Symetrix xln 12.





PT. SYNNEX METRODATA INDONESIA

# MR33

Dual-band, 802.11ac Wave 2 2x2:2 MU-MIMO Access Point with dedicated security and RF management radio as well as integrated Bluetooth Low Energy beacon and scanning radio



## Entry-level cloud-managed 802.11ac wireless

The Cisco Meraki MR33 is a quad-radio, cloud-managed 2x2:2 802.11ac Wave 2 access point with MU-MIMO support. Designed for next-generation deployments in offices, schools, hospitals, shops, and hotels, the MR33 provides performance, enterprise-grade security, and simple management.

The MR33 provides a maximum 1.3 Gbps\* aggregate frame rate with concurrent 2.4 GHz and 5 GHz radios. A dedicated third radio provides real-time WIDS/WIPS with automated RF optimization. An integrated Bluetooth Low Energy (BLE) radio delivers beacon and scanning capabilities.

The combination of cloud management, 802.11ac Wave 2, full-time RF environment scanning, and integrated Bluetooth technology delivers the throughput, reliability, and flexibility required by demanding business applications like voice and high-definition streaming video, today and tomorrow.

## MR33 and Meraki Cloud Management: A Powerful Combination

The MR33 is managed through the Meraki cloud, with an intuitive browser-based interface that enables rapid deployment without training or certifications. Since the MR33 is self-configuring and managed over the web, it can even be deployed at a remote location without on-site IT staff.

The MR33 is monitored 24x7 via the Meraki cloud, which delivers real-time alerts if the network encounters problems. Remote diagnostics tools enable real-time troubleshooting over the web, meaning multi-site, distributed networks can be managed remotely.

The MR33's firmware is always kept up to date from the cloud. New features, bug fixes, and enhancements are delivered seamlessly over the web, meaning no manual software updates to download or missing security patches to worry about.

## Product Highlights

- 2x2 MU-MIMO 802.11ac Wave 2
- 1.3 Gbps\* aggregate dual-band frame rate
- 24x7 real-time WIPS/WIDS, spectrum analytics, and WiFi location tracking via dedicated 3rd radio
- Integrated Bluetooth Low Energy Beacon and scanning radio
- Integrated enterprise security and guest access
- Application-aware traffic shaping
- Optimized for voice and video
- Self-configuring, plug-and-play deployment
- Sleek, low-profile design blends into any environment

## Features

### Aggregate data rate of up to 1.3 Gbps\*

A 5 GHz 2x2:2 radio supporting 80 MHz channel widths and a 2.4 GHz 2x2:2 radio supporting 40 MHz channel widths offer a combined dual-radio aggregate frame rate of 1.3 Gbps\*, with up to 866 Mbps in the 5 GHz band thanks to 802.11ac Wave 2 and 400 Mbps in the 2.4 GHz band.

### Multi User Multiple Input Multiple Output (MU-MIMO)

With support for the 802.11ac Wave 2 standard, the MR33 offers MU-MIMO for more efficient transmission to multiple clients. Especially suited for environments with numerous mobile devices, MU-MIMO enables multiple clients to receive data simultaneously. This increases the total network performance and improves the end user experience.

### Dedicated third radio delivers 24x7 wireless security and RF analytics

The MR33's sophisticated, dedicated dual-band third radio scans the environment continuously, characterizing RF interference and containing wireless threats like rogue access points. No more need to choose between wireless security, advanced RF analysis, and serving client data: a dedicated third radio means that all three occur in real-time, without any impact to client traffic or AP throughput.

### Bluetooth low energy Beacon and scanning

An integrated Bluetooth low energy radio provides seamless deployment of BLE Beacon functionality and effortless visibility of BLE devices within range of the AP. The MR33 enables the next generation of location-aware applications and engagement right out of the box.

### Automatic cloud-based RF optimization

The MR33's sophisticated, automated RF optimization means that there is no need for the dedicated hardware and RF expertise typically required to tune a wireless network. The real-time full-spectrum RF analysis data collected by the dedicated third radio is continuously fed back to the Meraki cloud. The Meraki cloud then automatically tunes the MR33's channel selection, transmit power, and client connection settings for optimal performance under the most challenging RF conditions.

### Secure wireless environments using 24x7 Air Marshal

No longer choose between a wireless intrusion prevention system (WIPS) and serving client data: thanks to the dedicated third radio, Air Marshal, a highly optimized built-in WIPS, scans continuously for threats and remediates them as commanded, all without disrupting client service. Alarms and optional auto-containment of rogue APs are configured via flexible remediation policies, ensuring optimal security and performance in even the most challenging wireless environments.



PT. SYNNEX METRODATA INDONESIA

### Integrated enterprise security and guest access

The MR33 features integrated, easy-to-use security technologies to provide secure connectivity for employees and guests alike. Advanced security features such as AES hardware-based encryption and WPA2-Enterprise authentication with 802.1X provide wire-like security while still being easy to configure. One-click guest isolation provides secure, Internet-only access for visitors. Our policy firewall (Identity Policy Manager) enables group or device-based, granular access policy control. Meraki Teleworker VPN makes it easy to extend the corporate LAN to remote sites, without requiring all clients and devices to have client VPN software. PCI compliance reports check network settings against PCI requirements to simplify security retail deployments.

### Application-aware traffic shaping

The MR33 includes an integrated layer 7 packet inspection, classification, and control engine, enabling you to set QoS policies based on traffic type. Prioritize your mission critical applications, while setting limits on recreational traffic, e.g., peer-to-peer and video streaming.

### Voice and Video optimizations

Industry standard QoS features are easy to configure like Wireless Multi Media (WMM) Access Categories, 802.1p, and DSCP.

### Low-profile, sleek, and compact design

Despite its robust feature set, the MR33 is packaged in a sleek, low-profile enclosure that blends seamlessly into any environment.

### Self-configuring, self-optimizing, self-healing

When plugged in, the MR33 automatically connects to the Meraki cloud, downloads its configuration, and joins the appropriate network. The MR33 then self-optimizes, determining the ideal channel, transmit power, and client connection parameters. As necessary, it will also self-heal, responding automatically to switch failures and other errors.



PT. SYNNEX METRODATA INDONESIA

\*Refers to maximum over-the-air data frame rate capability of the radio chipset, and may exceed data rates allowed by IEEE Std 802.11ac-compliant operation.

KEMENTERIAN KOMUNIKASI DAN INFORMATIKA  
DIREKTORAT JENDERAL SUMBERDAYA DAN  
PERANGKAT POS DAN INFORMATIKA  
REPUBLIK INDONESIA

MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY  
DIRECTORATE GENERAL OF RESOURCES AND EQUIPMENT  
FOR POST AND INFORMATION TECHNOLOGY  
THE REPUBLIC OF INDONESIA

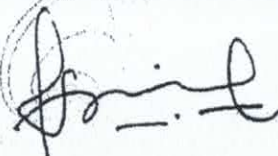
## SERTIFIKAT | CERTIFICATE

NOMOR : 50776/SDPPI/2017

|                                                              |                                                                                                                                                                  |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERMEN KOMINFO NOMOR : 28 TAHUN 2015,                        |                                                                                                                                                                  |
| Referensi :<br>Reference                                     | PLG ID : 3965<br>Client's ID                                                                                                                                     |
| Jenis Perangkat : Wireless Access Point<br>Name of Equipment | Diajukan Oleh : SYNnex METRODATA INDONESIA,<br>Proposed by PT.                                                                                                   |
| Buatan : TAIWAN<br>Country of Origin                         | Alamat : APL Tower 42nd Floor Suite<br>Address 1-8, Jl. Letjen S. Parman kav. 28,<br>Kel. Tanjung Duren Selatan, Kec. Grogol<br>Petamburan, 11470, Jakarta Barat |
| Merek : Cisco<br>Trade Mark                                  | Tanggal Terbit : 13 Juni 2017<br>Date of Issue                                                                                                                   |
| Model/Type : MR33-HW                                         | Masa Berlaku : 13 Juni 2020<br>Valid Until                                                                                                                       |
| Frekuensi Kerja :<br>Operating Frequencies                   | WLAN 2,4 GHz : 2,4 GHz - 2,4835 GHz<br>Daya Pancar : < 100 mWatt<br>WLAN 5,8 GHz : 5,725 GHz - 5,825 GHz<br>Daya Pancar : < 20 dBm                               |

  
PT. SYNnex METRODATA INDONESIA

A.N. MENTERI KOMUNIKASI DAN INFOMATIKA  
DIREKTUR JENDERAL SUMBER DAYA DAN PERANGKAT POS DAN INFORMATIKA  
FOR MINISTER COMMUNICATION AND INFORMATION TECHNOLOGY  
DIRECTOR GENERAL OF RESOURCES AND EQUIPMENT FOR POST AND INFORMATION TECHNOLOGY



ISMAIL



No. 000112/2019/SMI

11 Maret 2019

Kepada Yth.  
**POKJA PEMILIHAN 2 BIRO ADMINISTRASI PENGADAAN BARANG/JASA  
SETDA PROVINSI JAWA TENGAH  
GEDUNG D SETDA PROVINSI JAWA TENGAH  
JL. PAHLAWAN 9  
SEMARANG**

Dengan hormat,

**Perihal: Surat Dukungan**

Sehubungan dengan adanya "PENGADAAN PERALATAN STUDIO VISUAL SARANA DAN PRASARANA SITUATION ROOM NO. 01.25/POKJAPIL 02/BAPBJ/III/2019", PT. Synnex Metrodata Indonesia sebagai Authorized Distributor dari produk VERTIV di Indonesia, dengan ini menjamin untuk mendukung :

**PT. MEDIA SARANA DATA  
JL. DARADASIH NO. 11A  
PATANGPULUHAN, WIROBRAJAN  
YOGYAKARTA 55251**

yang ikut serta dalam pengadaan tersebut di atas sejauh Produk di atas tersebut berasal dari kami.

Untuk kepastian bahwa barang-barang tersebut dari kami, maka kami akan mengeluarkan surat jaminan dengan menyebutkan nomor seri yang sah dikeluarkan oleh VERTIV bersamaan dengan pengiriman Produk Liebert ITA2 10KVA/10KW kepada PT. MEDIA SARANA DATA apabila menang dalam pengadaan tersebut dan barang dibeli dari PT. Synnex Metrodata Indonesia.

Surat Dukungan ini valid apabila Produk yang dibeli berasal dari PT. Synnex Metrodata Indonesia.

Hormat kami,  
**PT. Synnex Metrodata Indonesia**



**Rulie Kurniawan**  
Channel Sales Manager

No. 000112/2019/SMI

11 Maret 2019

Kepada Yth.  
**POKJA PEMILIHAN 2 BIRO ADMINISTRASI PENGADAAN BARANG/JASA  
SETDA PROVINSI JAWA TENGAH  
GEDUNG D SETDA PROVINSI JAWA TENGAH  
JL. PAHLAWAN 9  
SEMARANG**

Dengan hormat,

**Perihal: Jaminan Purna Jual**

PT. SYNNEX METRODATA INDONESIA sebagai Authorized Distributor dari produk **VERTIV** di Indonesia, dengan ini memberikan dukungan purna jual (warranty) sebagai berikut:

- **Liebert ITA2 10KVA/10KW**

Dukungan purna jual (warranty) standart untuk produk tersebut diatas adalah 2 (dua) tahun.

Kami memberikan garansi penuh untuk produk tersebut diatas yang diikutsertakan dalam pengadaan ini yang sah dikeluarkan oleh **VERTIV**.

Demikian surat ini dikeluarkan sehubungan dengan **"PENGADAAN PERALATAN STUDIO VISUAL SARANA DAN PRASARANA SITUATION ROOM NO. 01.25/POKJAPIL 02/BAPBJ/III/2019"**.

Surat Jaminan Purna Jual ini valid apabila Produk yang dibeli berasal dari PT. Synnex Metrodata Indonesia.

Hormat kami,  
**PT. Synnex Metrodata Indonesia**



**Rulie Kurniawan**  
Channel Sales Manager

# LIEBERT® ITA2 10 - 20 kVA

Flexible Power Protection for Rack or Tower Installation



## Remarkable Efficiency and Flexibility Characterize the Liebert® ITA2 UPS

Featuring true online double conversion technology, unity power factor and an extremely compact rack-tower design, Liebert ITA2 is the perfect power protection solution for your computer room, storage and network equipment.

With a unity output power factor, Liebert ITA2 perfectly matches the needs of modern IT loads, and with its wide input voltage and frequency range it effectively reduces the need for battery intervention, thus prolonging battery life.

It is also endowed with intelligent fans with automatic speed control, which effectively save energy and reduce noise.

Liebert ITA2 supports common battery configurations between paralleled UPS and the number of batteries per string, which can be arranged flexibly, facilitating the utilization of different battery systems and saving on battery investment.

An extra powerful battery charger across all models capable of recharging high capacity battery strings ensures a fast charge-restoration even after a prolonged power outages.

Liebert ITA2 offers enhanced flexibility with a wide range of accessories for both stand-alone and rack-mount installations. When rack mounted, it allows to install up to 20 kVA in just 3 U of space, achieving a remarkable space saving. Parallelability and maintenance are facilitated through the use of dedicated maintenance bypass option while extended backup time can be provided with matching battery modules for a neat rack-mounted installation. Liebert ITA2 features a multi-lingual LCD user interface allowing close control and monitoring of system status and performance.

### The Liebert ITA2 series is ideally suited for:

- Small computer rooms
- Long backup time applications
- Branch offices
- Servers
- Network computers and peripherals
- Storage device
- VoIP

### Product Features:

- Rack-tower design for installation flexibility
- Able to deliver both three-phase and single-phase output
- Ultra high power density, thanks to 30% reduced dimensions compared to the previous generation
- 0.99 input power factor for better grid or generator compatibility
- Unity output power factor for additional power availability
- Efficiency in double conversion up to 96.2%
- ECO mode operation with efficiency up to 99% and remarkable energy saving performance
- Powerful charging capability for minimum battery recharging time

### The UPS is compatible with any Building Management System (BMS) by offering the following communication features:

- Voltage-free contact ports
- USB interface
- Vertiv™ IntelliSlot™ for SNMP, Modbus or Relay communication



Liebert ITA2 10 - 20 kVA



PT. SYNNEX METRODATA INDONESIA

## Liebert® ITA2 10 - 20 kVA Specifications

## TECHNICAL SPECIFICATIONS

| Ratings (kVA) | 10 | 15 | 20 |
|---------------|----|----|----|
|---------------|----|----|----|

## INPUT

|                                                   |                                     |  |  |
|---------------------------------------------------|-------------------------------------|--|--|
| Nominal input voltage (V)                         | 380/400/415 (three-phase + neutral) |  |  |
| Input voltage range without battery discharge (V) | 173 to 498*                         |  |  |
| Nominal input frequency (Hz)                      | 50/60                               |  |  |
| Input frequency range (Hz)                        | 40-70                               |  |  |
| Bypass voltage tolerance (%)                      | selectable from +20 to -40          |  |  |
| Bypass frequency tolerance (%)                    | ±20 (±10 selectable)                |  |  |
| Input power factor at full load (kW/kVA)          | 0.99                                |  |  |
| Current THD at full linear load (THDI%)           | ≤3*                                 |  |  |

## BATTERY MANAGEMENT

|                                               |              |
|-----------------------------------------------|--------------|
| Battery blocks per string                     | 24-40*       |
| Voltage temperature compensation (mV/°C/Cell) | -3mV/°C/Cell |
| Battery charger max. current (A)              | 13           |

## OUTPUT

|                                    |                                                           |    |    |
|------------------------------------|-----------------------------------------------------------|----|----|
| Nominal output voltage (V)         | 380/400/415 (three-phase) or 220/230/240 (single-phase)   |    |    |
| Nominal output frequency (Hz)      | 50/60                                                     |    |    |
| Maximum active power (kW)          | 10                                                        | 15 | 20 |
| THDv at full linear load (%)       | ≤2                                                        |    |    |
| Inverter overload capacity at 25°C | 105% for 60 min; 125% 5min; 150% for 1 min, > 150%, 200ms |    |    |

## EFFICIENCY

|                              |             |
|------------------------------|-------------|
| Double conversion efficiency | Up to 96.2% |
| ECO Mode Efficiency          | Up to 99%   |

## DIMENSIONS AND WEIGHT

|                             |                      |
|-----------------------------|----------------------|
| Dimensions (W x D x H) (mm) | 430 x 500 x 130 (3U) |
| Net Weight (kg)             | 23                   |

## GENERAL

|                                                |                                       |
|------------------------------------------------|---------------------------------------|
| Noise at 1 m (dBA)                             | ≤58                                   |
| Ventilation                                    | Front to back                         |
| Maximum altitude                               | 1500 m without derating (max. 3000 m) |
| Protection level IEC (60529)                   | IP20                                  |
| EMC requirements for UPS                       | EN/IEC/AS 62040-2                     |
| UPS classification according to CEI EN 62040-3 | VFI-SS-111                            |
| General and safety requirements for UPS        | EN/IEC/AS 62040-1                     |

\* Conditions apply

19<sup>th</sup> Dec 2008

## **TO WHOM IT MAY CONCERN**

Dear Sir/Madam,

**RE: EXCLUSIVE DISTRIBUTOR APPOINTMENT**

This is to certify that:

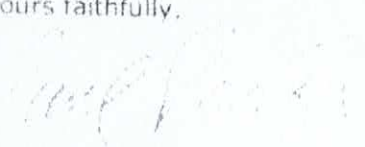
**PT GRACIA AUVINDO**

KanTo D-22, Superblok Mega Kemayoran  
Jl. Angkasa Kav B-6, Kota Baru Bandar Kemayoran  
Jakarta Pusat - 10610

Are currently appointed as the **Exclusive Distributor for Symetrix** within territory of Indonesia.

As Exclusive Distributor, they will be responsible to promote, distribute and perform after sales service for Symetrix.

Yours faithfully,

  
Paul Roberts | Director of Sales  
Symetrix, Inc.

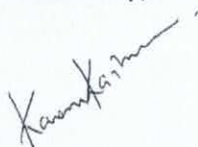


## TO WHOM IT MAY CONCERN

MUSIC Group, a global technology company, designs and manufactures Audio products for professional markets. As the corporate parent for world- recognized brands such as TANNOY, LAB GRUPPEN, LAKE, TC HELICON, TC ELECTRONIC, EUROCOM, MIDAS, KLARK TEKNIK, TURBOSOUND, BEHRINGER and BUGERA, the MUSIC Group owns and manages these brands.

We do hereby certify PT GRACIA AUVINDO with its registered addresses as Kanto Blk D/22, Mega Glodok Kemayoran 10610 Jakarta Indonesia, is our authorized distributor for TANNOY, LAB GRUPPEN, LAKE, MIDAS & KLARK TEKNIK for Indonesia.

Sincerely,



Karan Kathuria  
Director, Touchpoint  
MUSIC Group





**CONFIRMATION LETTER**  
**IAP/YTD19/1/040**

This is to certify that:

**PT. Synnex Metrodata Indonesia**  
APL Tower Lantai 42 Suite 1-8, Jl. Letjen S. Parman Kav. 28  
Tj. Duren Selatan, Jakarta Barat 11470

Is officially appointed as **Distributor** of PT DKSH Indonesia – VERTIV.

The above appointment shall be valid for 1 January 2019-31 December 2019 in accordance with the term of the Solution Partner (Diamond) Agreement.

Please feel free to contact us for any further questions or clarifications and thank you for your kind attention and cooperation.

Yours Sincerely,  
PT DKSH Indonesia



PT. DKSH Indonesia  
www.dksh.com/indonesia

**Benoit Fissot**  
Managing Director Technology



PT. DKSH Indonesia  
AIA Central 39th floor  
Jalan Jenderal Sudirman Kav 48A, Jakarta Selatan 12930  
Phone +62 21 2988 8557. Fax +62 21 2988 7870. [www.dksh.com/indonesia](http://www.dksh.com/indonesia)

**Think Asia. Think DKSH.**



#### AMENDMENT NO. 1 TO THE DISTRIBUTOR AGREEMENT

This Amendment No. 1 (the "Amendment") to the Distributor Agreement or other similar agreement for the distribution of Cisco Products and Services (the "Agreement") entered into by and between Cisco International Limited ("Cisco"), registered in England and Wales having a principal place of business at 9-11 New Square Park, Bedford Lakes, Feltham, England TW14 8HA, United Kingdom and PT. Synnex Metrodata Indonesia (the "Distributor"), having its principal place of business at APL Tower 42nd Floor Suite 1-8 Jl. Letjen S. Parman Kav. 28, Tanjung Duren Selatan, 11470, Jakarta Barat, Indonesia, is effective as of the date of last signature (the "Amendment Effective Date").

**WHEREAS**, as of 27 January 2016, Cisco and Distributor entered into the Agreement, as amended (if applicable);

**WHEREAS**, any future extension, renewal, or amendment to the Agreement may be in electronic format and accepted on-line by means of an electronic contract management system, (including these terms the "On-line Amendment") as described herein; and

**WHEREAS**, in order to implement an On-line Amendment, Cisco will deliver an e-mail to an authorized officer or representative of Distributor, which e-mail will contain a link to the On-line Amendment. By clicking on the link, Distributor will be presented with an On-line Amendment, which will set forth the terms of the extension, renewal or amendment to the Agreement and will contain a means for acceptance.

**NOW THEREFORE**, the parties agree to amend the Agreement as follows:

1. The Agreement may be extended, renewed or amended by electronic means by accepting terms and conditions on-line and the provisions of such extension, renewal or amendment shall for all purposes be legally enforceable and binding on the parties as if the Agreement were extended, renewed or amended in writing and signed by both parties. The On-line Amendment shall be deemed signed and thus the terms hereof agreed to, if Distributor clicks on the 'Renew' button therein and thereby accepts the On-line Amendment. All references to writing or written amendments in the Agreement shall be deemed to include any On-line Amendment, and all references to signature shall include on-line acceptance. Distributor waives any challenge to the validity or enforceability of any renewals, extensions or amendments to the Agreement or the terms of any of the forgoing on the grounds that the terms of any renewal, extension or amendment were presented on-line or electronically or acceptance of such renewal, extension or amendment was electronically transmitted or accepted.
2. The term of the Agreement shall be renewed for a period of two (2) years commencing on the following date: (i) if the Agreement has not expired (i.e. the Amendment Effective Date is *on or before* the expiry of the then-current term of the Agreement), then the end of the then-current term of the Agreement; or (ii) if the Agreement has expired (i.e. the Amendment Effective Date is *after* the expiry of the then-current term of the Agreement), then the Amendment Effective Date. The Agreement will not govern any orders received between the date of expiration of the Agreement and the Amendment Effective Date.
3. To the extent the following language is not present in the Agreement, it is hereby added to the section regarding Appointment of Regional Distributor:

**"Due Diligence.** Integrator must complete any due diligence or other questionnaire provided by

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R

or candidate for political office outside the United States and are responsible for a decision regarding obtaining or retaining business for Cisco Products by such government.

- d. Distributor shall use its best efforts to regularly and continuously inform Cisco of any requirements of laws, statutes, ordinances, governmental authorities directly or indirectly affecting this Agreement, the sale, use, and distribution of Products, or Cisco's trade name, trademarks, or other commercial, industrial, or intellectual property interests, including, but not limited to, certification of the Products from the proper authorities in the Territory."
7. If the Agreement contains a definition of European Economic Area or EEA ("Initial Definition") which differs from the following definition, the Initial Definition is hereby deleted and replaced with the following definition:  
  
"European Economic Area or EEA means the then-current member states of the European Union (EU) and the then-current member states of the European Free Trade Area (EFTA). For the avoidance of doubt, this definition includes Switzerland."
8. If the Agreement does not contain a definition of European Economic Area or EEA, then the following definition is hereby added:  
  
"European Economic Area or EEA means the then-current member states of the European Union (EU) and the then-current member states of the European Free Trade Area (EFTA). For the avoidance of doubt, this definition includes Switzerland."
9. If the Agreement contains a "Direct Value Add Distributor ("DVAD") Program" also known as "Channels Booking Neutrality" ("CBN") exhibit, then such exhibit is hereby deleted and replaced with Appendix A ("Direct Value Add Distributor ("DVAD") Program" also known as "Channels Booking Neutrality" ("CBN")) attached to this Amendment.
10. If the Agreement does not contain a "Direct Value Add Distributor ("DVAD") Program" also known as "Channels Booking Neutrality" ("CBN") exhibit, then Appendix A ("Direct Value Add Distributor ("DVAD") Program" also known as "Channels Booking Neutrality" ("CBN")) attached to this Amendment is hereby incorporated into the Agreement and the DVAD terms and conditions are co-terminous with the Agreement.
11. Any support exhibits in the Agreement shall be deleted in their entirety and replaced with Appendix B, Distributor Support and Services Resale Exhibit, attached to this Amendment and hereby incorporated into the Agreement by this reference.
12. To the extent that there is conflict between the Agreement and this Amendment, the terms of this Amendment shall take precedence over the terms and conditions of the Agreement with regards to the subject matter described herein.

Cisco and must comply with such other due diligence or other compliance requirements requested by Cisco in writing."

4. To the extent the following language is not present in the Agreement, it is hereby added to the section regarding Term and Termination:

"In the event that, following termination or expiration of this Agreement, Distributor places Purchase Orders and Cisco accepts such Purchase Orders, then any such Purchase Orders shall be governed by the terms and conditions of this Agreement notwithstanding the earlier expiration or termination of this Agreement; provided, however, that acceptance by Cisco of any such Purchase Order will not be considered to be an extension of the term of the Agreement nor a renewal thereof."

5. To the extent the following language is not present in the Agreement, it is hereby added to the section regarding Term and Termination that permits Cisco to terminate immediately:

"Where Distributor fails to complete any due diligence questionnaire or other questionnaire provided by Cisco and/or fails to comply with such other due diligence or other compliance requirements requested by Cisco in writing and/or fails to meet Cisco's general due diligence requirements."

6. To the extent there is a clause or exhibit in the Agreement regarding Compliance with Laws, including Anti-Corruption Laws, such clause or exhibit is hereby deleted in its entirety and replaced with the following language:

"Compliance with Laws, including Anti-Corruption Laws

- a. Distributor shall obtain all licenses, permits, and approvals required by any government, including any recycling or take-back programs applicable to packaging or Products, and shall comply with all applicable laws, rules, policies, and procedures including requirements applicable to the use of Products under telecommunications and other laws and regulations, of any government or other competent authority where the Products are to be sold or used (collectively "Applicable Laws").
- b. Distributor will indemnify and hold harmless Cisco for any violation or alleged violation of any Applicable Laws.
- c. Distributor hereby represents and warrants that:
  - i. Distributor shall comply with all Applicable Laws;
  - ii. This Agreement and each of its terms are in full conformance and in compliance with such laws
  - iii. Distributor shall not act in any fashion or take any action or permit or authorize any action which will render Cisco liable for a violation of the U.S. Foreign Corrupt Practices Act (the "FCPA"), which prohibits the offering, giving or promising to offer or give, directly or indirectly, money or anything of value to any official of a government, political party or instrumentality thereof in order to assist it or Cisco in obtaining or retaining business; and
  - iv. Distributor will not violate or cause Cisco to violate the FCPA in connection with the sale or distribution of Cisco Products and/or services; and (ii) if Distributor is a non-governmental entity, it will notify Cisco in writing if any of its owners, partners, principals, and officers are or become during the term of this Agreement officials, officers, or representatives of any non-United States government or political party

13. Any terms not defined in this Amendment shall have the meaning stated in the Agreement. All other terms and conditions of the Agreement remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed. Each party warrants and represents that its respective signatories whose signatures appear below have been and are on the date of signature duly authorized to execute this Agreement.

**SYNNEX**  
PT. Synnex Metrodata Indonesia  
("Distributor")  
PT. SYNNEX METRODATA INDONESIA

Authorized Signature

Agus Honggo Widodo

Print Name

President Director

Title

31 January 2018

Day/Month/Year

Cisco International Limited  
("Cisco")

Authorized Signature

William Robert McCartney

Print Name FINANCE MANAGER.FINANCE

Title

08 February 2018

Day/Month/Year

APPROVED BY LEGAL



**CISCO**

Cisco International Limited  
9-11 New Square Park  
Bedfont Lakes, Feltham  
Middlesex, TW14 8HA  
United Kingdom

 **SYNNEX**   
PT. SYNNEX METRODATA INDONESIA

R



Ref. No. : SURDUK-19/FAV/MSD/002  
Perihal : **Surat Dukungan**

Kepada Yth,  
Pokja Pemilihan 2 Biro Administrasi Pengadaan Barang/Jasa Setda Provinsi Jawa Tengah  
Gedung D Setda Provinsi Jawa Tengah  
Jl. Pahlawan 9 Semarang

Yang bertanda tangan di bawah ini :

Nama : Hans Fernandi Halim  
Jabatan : **Direktur**  
Perusahaan : **PT FERNANDS AUDIO VISUAL**  
Alamat Perusahaan : PIK AVENUE MALL LT.6, Jl. Pantai Indah Barat  
No.1 RT.001, RW.006, Kel. Kamal Muara, Kec.  
Penjaringan, Jakarta Utara 14460, Indonesia

Sebagai Distributor di Indonesia untuk produk merk **B-TECH AV MOUNTS** memberikan dukungan kepada :

Nama Perusahaan : PT. Media Sarana Data  
Alamat Perusahaan : Jl. Daradasih No. 11A, Patangpuluhan, Wirobrajan,  
Yogyakarta 55251

Untuk pekerjaan pengadaan : **Pengadaan Peralatan Studio Visual Sarana dan Prasarana Situation Room**

Surat dukungan ini meliputi :

- Barang yang ditawarkan 100% baru/ bukan barang rekondisi, bukan dari pasar gelap/ blackmarket.
- Memberikan layanan purna jual.
- Sanggup memberikan garansi suku cadang selama 2 (dua) tahun.
- Sanggup memberikan surat jaminan pemeliharaan selama 2 (dua) tahun, selama masa pemeliharaan sanggup memperbaiki kerusakan dalam waktu 7 (tujuh) hari kerja.

Demikian surat dukungan ini dibuat untuk dipergunakan sebagaimana mestinya.

Jakarta, 8 Maret 2019  
PT FERNANDS AUDIO VISUAL



**Hans Fernandi Halim**  
**Direktur**

**PT Fernands Audio Visual**  
PIK AVENUE MALL LT.6, Jl. Pantai Indah Barat No.1 RT.001, RW.006, Kel. Kamal Muara, Kec.  
Penjaringan, Jakarta Utara 14460, Indonesia

# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20180820-E502044  
**Report Reference** E499967-20180815  
**Issue Date** 2018-AUGUST-20

**Issued to:** B-Tech International Design and Manufacturing Limited  
Unit 26, 22/F Metro Centre II, 21 Lam Hing St.  
Kowloon Bay, Kowloon, Hong Kong HONG KONG

**This is to certify that  
representative samples of**

WALL AND CEILING MOUNTS AND ACCESSORIES  
USL, CNL - PROFESSIONAL VIDEO WALL MOUNT,  
Model BT8310  
USL, CNL - ULTRA-SLIM POP-OUT VIDEO WALL  
MOUNT, Model BT8312

Have been investigated by UL in accordance with the  
Standard(s) indicated on this Certificate.

**Standard(s) for Safety:**

UL 2442 - Safety of Household, Commercial and  
Professional - Use Carts and Stands for WALL- AND  
CEILING-MOUNTS AND ACCESSORIES  
CSA C22.2 NO. 60065-03 - AUDIO, VIDEO, AND SIMILAR  
ELECTRONIC APPARATUS—SAFETY REQUIREMENTS

**Additional Information:**

See the UL Online Certifications Directory at  
[www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's  
Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



*B. Mahlenholz*

Bruce Mahlenholz, Director North American Certification Program  
UL LLC

Any Information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please  
contact a local UL Customer Service Representative at <http://ul.com/aboutus/directory>





Intellectual  
Property  
Office

Concept House  
Cardiff Road, Newport  
NP10 8QQ

T +44 (0) 30 0300 2000  
MC +44 (0) 30 0020 0015

Sukra Limited  
Bennett House  
Long March  
Daventry  
United Kingdom  
NN11 4NR

21 April 2018

## CERTIFICATE OF RENEWAL OF TRADE MARK

Trade Mark Number : UK00002492663  
In Class(es) : 09 20  
registered in the name of : Sukra Limited  
has been renewed until : 15 July 2028  
Your Reference : B-TECH AV MOUNTS

---

### IMPORTANT

We have shown the first 100 characters of the owners name as recorded in the register of Trade Marks. If this is wrong, please fill in and send us a form TM16 if ownership has changed or a form TM21A for other changes.

If you have any queries on this renewal, they should be addressed to the Renewal Section on 01633 814433.





**ULTRA-SLIM  
DESIGN**

# BT8312

## ULTRA-SLIM POP-OUT VIDEO WALL MOUNT

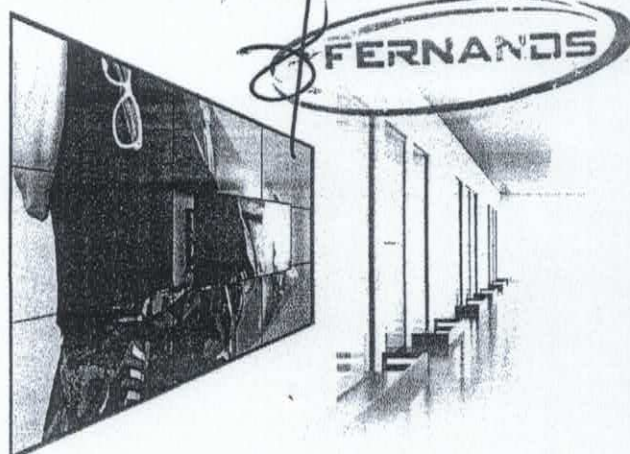
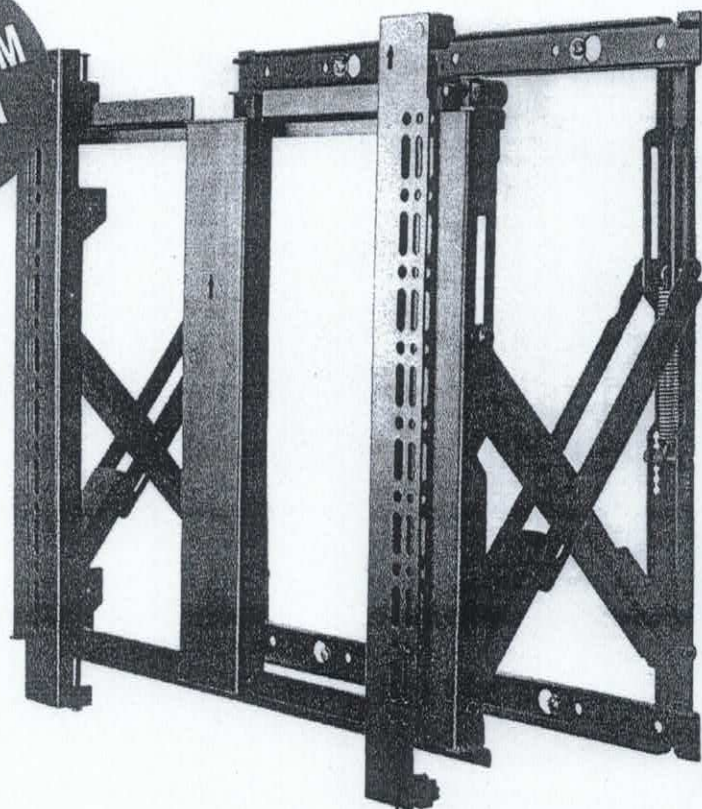
Designed to make video wall installations as quick and simple as possible, this modular video wall mount can be used to create unlimited video wall configurations in both landscape and portrait format. The BT8312 has an ultra-low profile for mounting into walls with a shallow recess or when space in front of the wall is minimal. The pop-out system enables quick and easy access to the rear of mounted screens for servicing and maintenance and  $\pm 7.5\text{mm}$  micro-adjustment makes accurate screen alignment quick and easy.

### SPECIFICATION

|                                              |                                                      |
|----------------------------------------------|------------------------------------------------------|
| Recommended screen size                      | 42" - 70" (46" - 70" in portrait)                    |
| Max load                                     | 50kg                                                 |
| VESA® compatibility (as standard)            | 200 x 100 to 400 x 400                               |
| VESA® compatibility (with included adaptors) | up to 600 x 400*                                     |
| Flat to wall depth                           | 63.1mm* ( $\pm 7.5\text{mm}$ with micro-adjustment)  |
| Popped out depth                             | 235.1mm* ( $\pm 7.5\text{mm}$ with micro-adjustment) |
| Colour                                       | Black                                                |

### FEATURES

- Ultra-slim design ideal for low profile installs on walls or in shallow recesses
- Modular mount allows video wall assembly in an unlimited number of configurations
- Suitable for landscape or portrait screen mounting
- Pop-out system provides quick and easy service access
- Tool less micro-adjustment of  $\pm 7.5\text{mm}$  at each corner for seamless display alignment
- Screen height adjustment of  $\pm 15\text{mm}$
- Suitable for both wall or pole mounting
- Keyhole mounting for quick and easy installation
- Mounting template spacers are available (separately) to speed up installation times
- Integrated locking mechanism prevents accidental pop-out of mount
- Safety screws help prevent unauthorised removal of screens
- Includes Interface Adaptor Arms as standard (pictured below) for use with screens with VESA 600 x 400 fixings
- All mounting hardware included



VESA  
600  
400

70"  
177cm

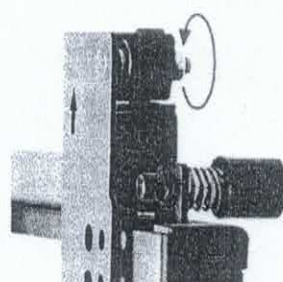
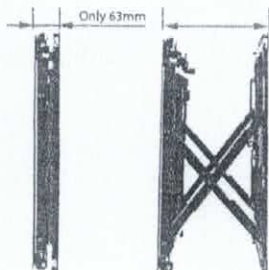
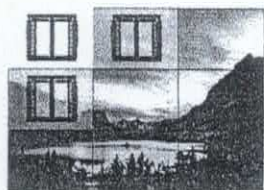
50KG

PER SCREEN

PER SCREEN

PER SCREEN

\*Please note using the included Interface Adaptor Arms to mount VESA 600 x 400 screens will increase the total depth of the product by 6mm, for a total depth of 69.1mm, or 241.1mm whilst popped out ( $\pm 7.5\text{mm}$  micro-adjustment).



Modular mount allows video wall assembly in an unlimited number of configurations

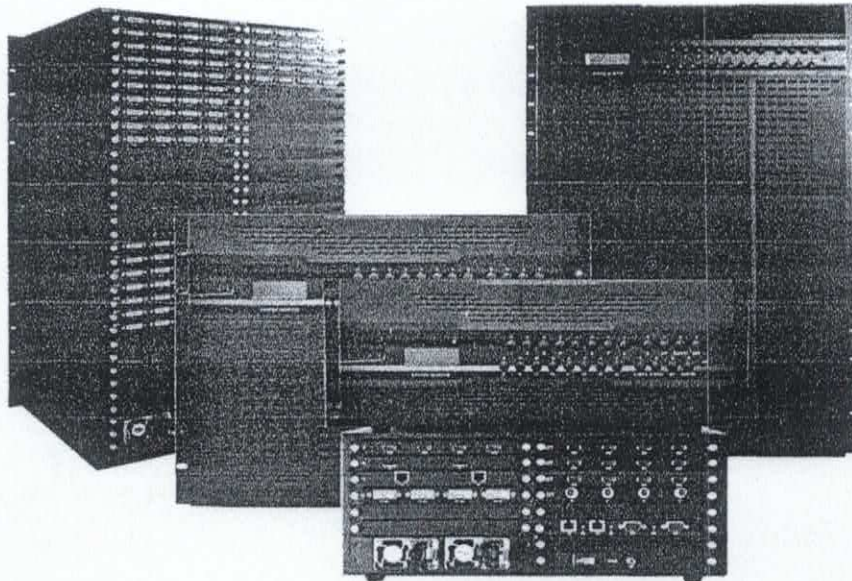
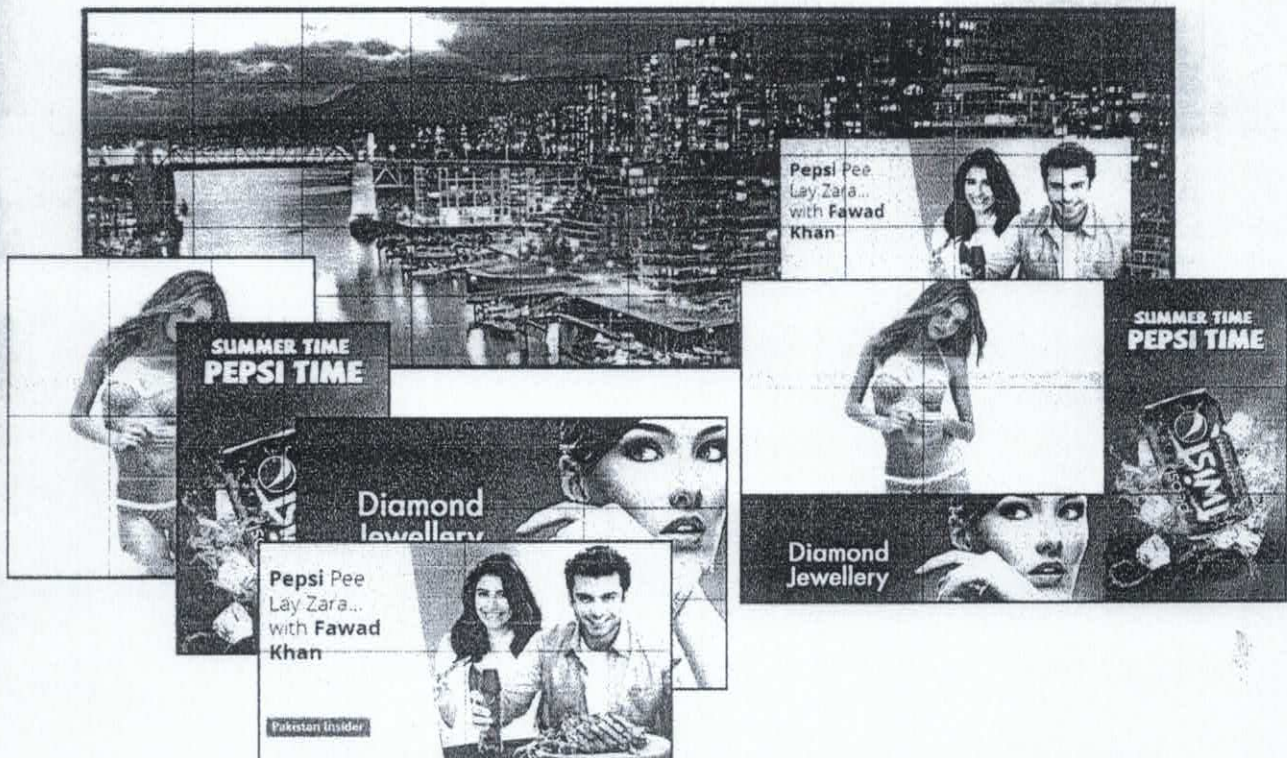
Pop-out system provides quick and easy service access

Tool less micro-adjustment of  $\pm 7.5\text{mm}$  at each corner for seamless display alignment

Optional Interface Adaptor Arms for VESA 600 x 400 fixings included as standard

**B-TECH PROFESSIONAL**

For More Information Visit [www.btechavmounts.com](http://www.btechavmounts.com)



# **BV** Series

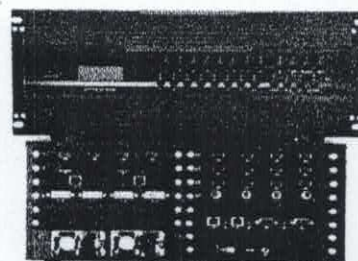
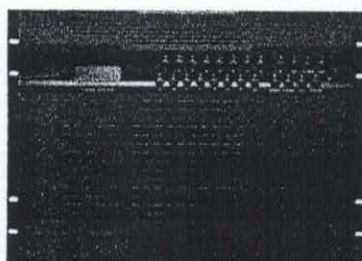
## Video Wall Controller

Powerful Video and Image Processing Device



# BV Series Video Wall Controller

BV Series video wall controller is new generation professional image processing product which is based on the development of multi-windows, ultra-high definition and visual display control technology. Compare to other video wall controller in the market, BV series has upgraded its system capacity and use 6.25G base exchange processing chip, so that there is a significant advantage on the processing speed and professional display control. Meanwhile, BV series controller supports multiple services, density of I/O interfaces and long term reliability. It is an all-in-one product which has 4K input and output processing, IP-Video Decoding, Monitoring control, Scene preset, Log management, User management and other advanced applications to meet a variety of professional system application requirements.



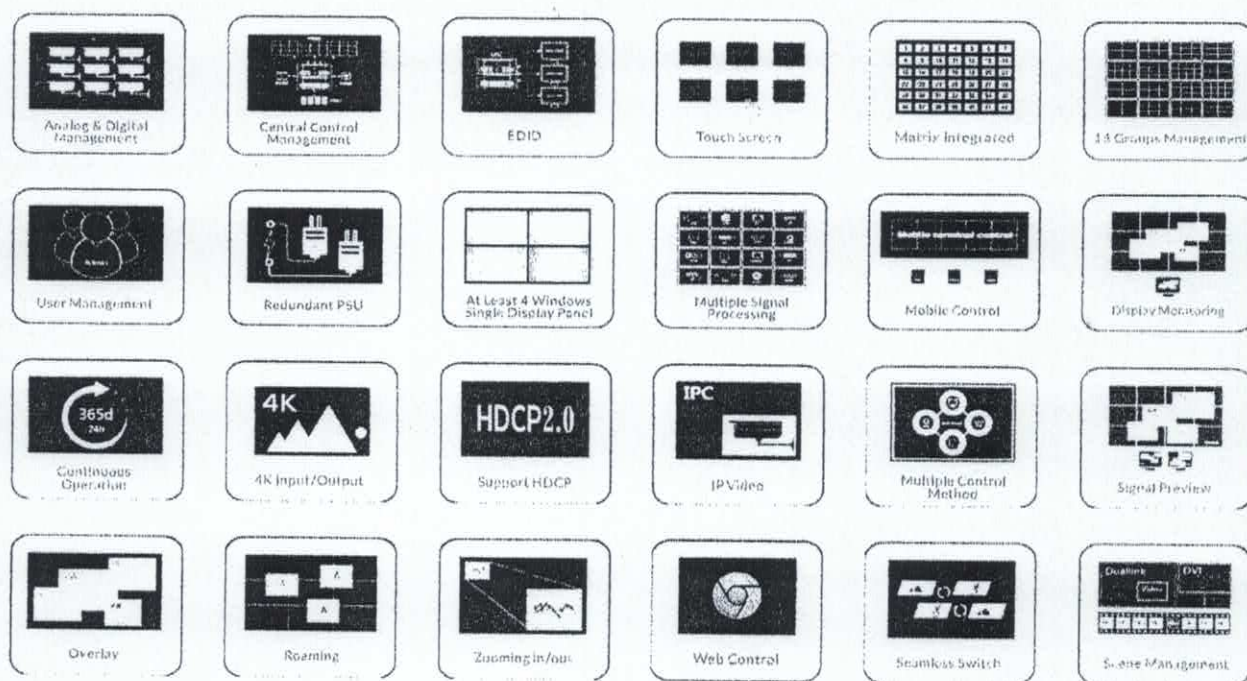
BV Series

Video Wall Controller

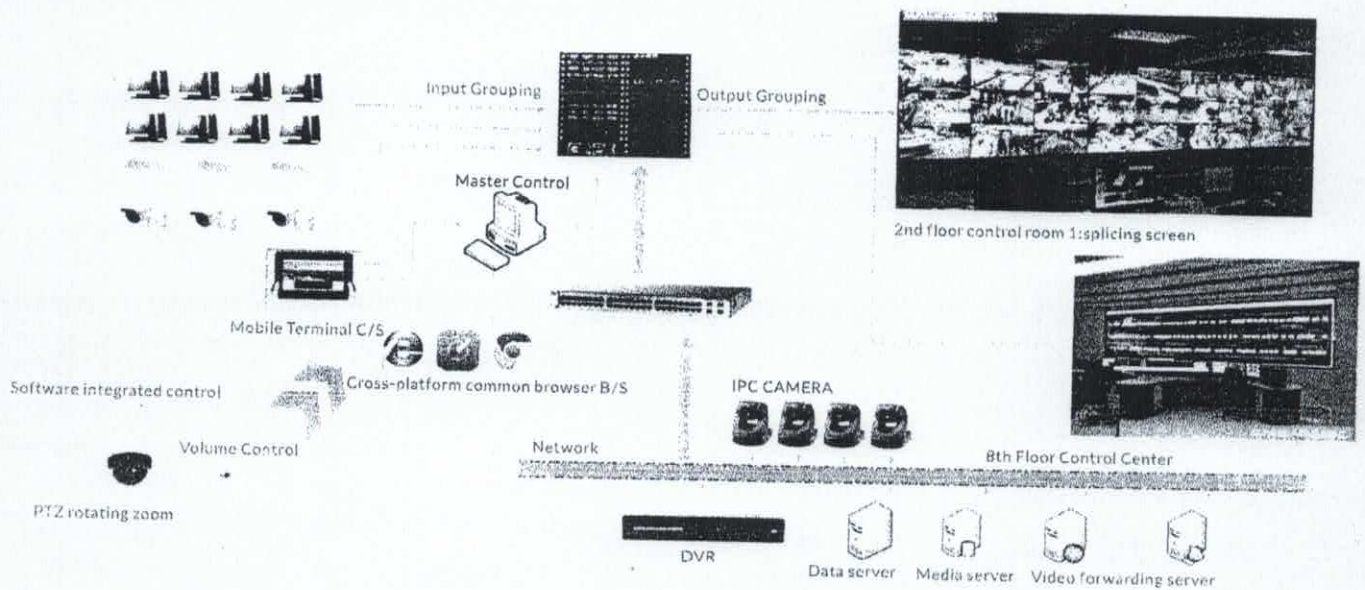
## FEATURES

- Pure-hardware FPGA Array, modular design, 6.25G/s base exchange processing speed;
- Support hot-swappable for I/O modules, control modules, redundant power supply. Easy to upgrade and maintenance;
- Support VGA, DVI, HDMI, CVBS, DP, SDI, HDBaseT, IP-Video, Fiber input sources and VGA, DVI, HDMI, SDI, CVBS, HDBaseT, Fiber output;
- Support 4K DP/HDMI/Dual-link DVI input and 4K HDMI output;
- Support VGA/DVI/HDMI sources self-adaption on single input card;
- Support HDCP2.0 for HDMI input and output;
- Support opening at least 8 windows on each two screens;
- Support up to 16 video wall groups control on single controller and work with variety of display terminals such as LCD, LED, DLP, projector;
- Support scene management, up to setup and display 255 scenes;
- Integrated with hybrid matrix function, output windows switching, friendly to system integrator;
- Support input source previewing and monitoring(refresh rate 24-30Hz);
- Variety of control methods such as RS232, Network, Touch screen/Keypad and compatible with third party control system;
- Support multi-user control management, software can be set through the operation authority, according to the authority level to develop different operating functions, different levels, different operating privileges, and can be set at any output authority range;
- B/S and C/S dual mode visualization control platform, support roaming, overlay, zoom in/out, multi-window switching, picture-in-picture, signal clip and a variety of display modes such as split screen, full screen and combination screen;
- Mobile visual management applications, support iPad, Surface;
- Support EDID, customize the output resolution according to the physical resolution of the display system;
- Advanced image decoding technology, compatible with a number of manufacturers' IPC signal and seamless access with variety resolutions such as 1080P, 720P, etc.

## RELEVANT FUNCTION INDICATION



## DIAGRAM

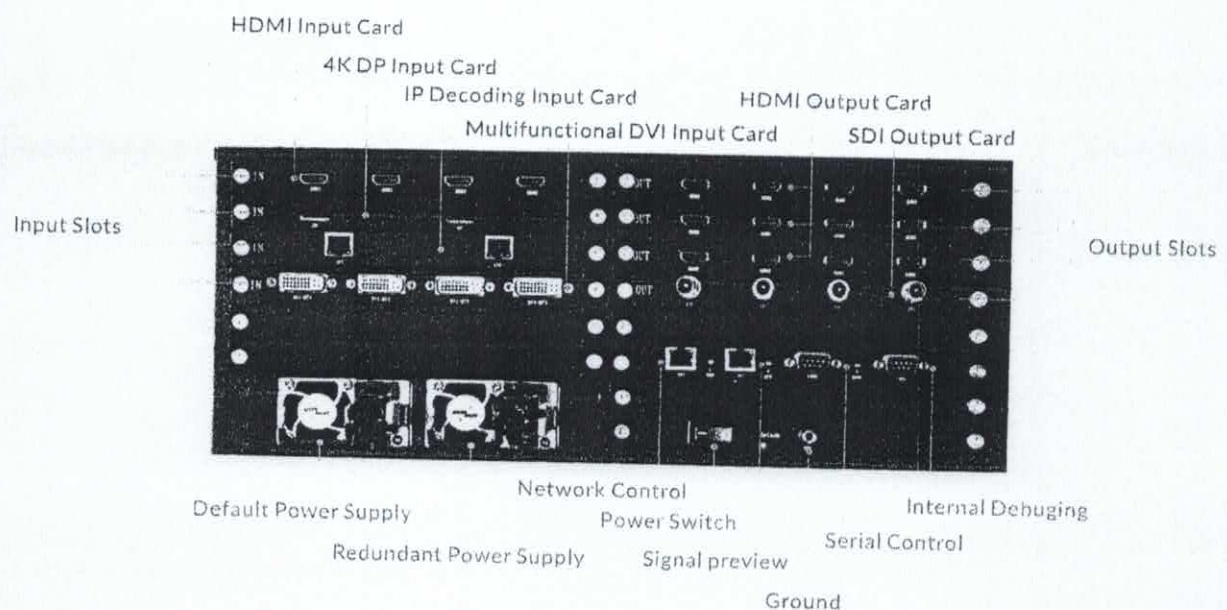


Input:VGA/DVI/HDMI/SDI/CVBS/Duallink-DVI/IP-Video/DP/HDBaseT/Fiber

Control:serial,network,third-party control system,ipad etc.

Output:DVI/HDMI/VGA/SDI/4K HDMI/HDBaseT/Fiber

## PRODUCT STRUCTURE



## INPUT CARDS



Quad-Channel DVI Input Card



Quad-Channel VGA Input Card



Quad-Channel HDMI Input Card



Quad-Channel DP Input Card



Quad-Channel SDI Input Card



8-Channel CVBS Input Card



Dual-Channel 4K DP Input Card



Dual-Link DVI Input Card



Dual-Channel 4K HDMI Input Card



Quad-Channel HDBaseT Input Card



Quad-Channel Fiber Input Card



Dual-Channel IP Input Card

## OUTPUT CARDS



Quad-Channel DVI Output Card



Quad-Channel VGA Output Card



Quad-Channel HDMI Output Card



Quad-Channel SDI Output Card



Quad-Channel CVBS Output Card



Quad-Channel HDBaseT Output Card



Quad-Channel Fiber Output Card



Dual-Channel 4K HDMI Output Card

## CONTROL CARDS

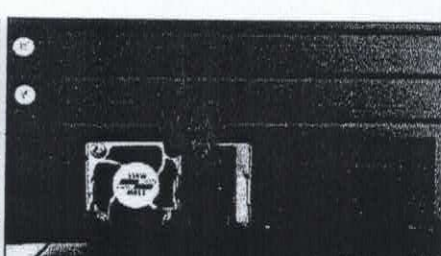
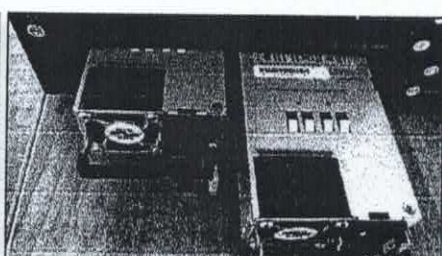
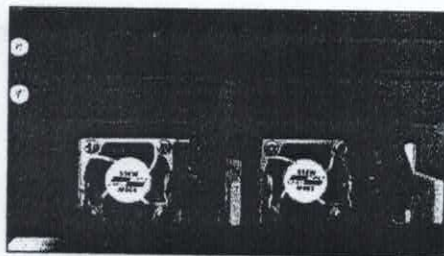


Control Card A



Control Card B  
(With Signal Preview)

## REDUNDANT PSU



## SPECIFICATIONS

| Device size   | 4U    |        | 8U    |        | 16U   |        | 16UA  |        | 16UB  |        | 28U   |        | 32U(Double) |        |
|---------------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------------|--------|
|               | Input | Output | Input | Output | Input | Output | Input | Output | Input | Output | Input | Output | Input       | Output |
| Slots         | 4     | 4      | 9     | 8      | 20    | 20     | 29    | 15     | 15    | 29     | 40    | 40     | 80          | 80     |
| Redundant PSU | 1+1   |        | 1+1   |        | 2+2   |        | 2+2   |        | 2+2   |        | 4+4   |        | 8+8         |        |

|                              |                             |                                                                                                       |
|------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------|
| Product hardware information | System structure            | Pure hardware FPGA architecture                                                                       |
|                              | Start up                    | <15s                                                                                                  |
|                              | Operating system            | No CPU and operating system                                                                           |
| Input/Output Signal          | Board type                  | Pure hardware pluggable, hot-swappable structure                                                      |
|                              | Input type                  | VGA,DVI,HDMI,DP,CVBS,SDI,HDBaseT,IP-Video,Fiber                                                       |
|                              | Input channel               | 1080P up to 320 channel,4K up to 80 channel                                                           |
| Image processing             | Output type                 | VGA,DVI,HDMI,CVBS,SDI,HDBaseT,Fiber                                                                   |
|                              | Output channel              | 1080P up to 320 channel,4K up to 80 channel                                                           |
|                              | Display mode                | Roaming, overlay, zoom in/out, multi-windowing, scene switch, PIP, full screen and combination screen |
| Control function             | Input resolution            | Single channel 4K; duallink DVI/HDMI/DP                                                               |
|                              | Scene/Signal switching time | Millisecond-level switching                                                                           |
|                              | Number of signal copy       | Up to 16                                                                                              |
| Stability                    | Max input/output resolution | 3840*2160@30Hz                                                                                        |
|                              | Single-screen window        | At least 8 windows on each two screens                                                                |
|                              | Hot-swappable               | Support                                                                                               |
| Working environment          | Power supply configuration  | N+1 redundant power supply structure                                                                  |
|                              | Signal preview              | Support                                                                                               |
|                              | Control structure           | Software /Hardware                                                                                    |
| Stability                    | Maximum scenes              | 255                                                                                                   |
|                              | Control method              | RS232/Network/Touch screen/Keypad and compatible with third party control system                      |
|                              | Management mode             | B/S, C/S, Mobile                                                                                      |
| Working environment          | Matrix control              | Supports digital /analog matrix linkage control                                                       |
|                              | Safety                      | Hardware structure, no virus interference                                                             |
|                              | MTBF                        | 50000h                                                                                                |
| Working environment          | Continuity                  | 365 days, 7x24 hours operation                                                                        |
|                              | Operating temperature       | -15~60℃                                                                                               |
|                              | Storage temperature         | -30~75℃                                                                                               |
| Working environment          | Operating humidity          | 10 to 90% without condensation                                                                        |
|                              | Storage humidity            | 5~95% without condensation                                                                            |

# iSEMC

Beijing Huahang Shengde Technology Co., Ltd.  
Tel:+86 10 82749250 | Fax:+86 10 82749250  
Email:info@isemc.com | Website:www.isemc.com



# PT. Cipta Alpha Omega

No Surat : 02/SDK/CAO/III/2019  
Perihal : Surat Dukungan

Kepada Yth,  
Pokja Pemilihan 2 Biro Administrasi Pengadaan Barang/Jasa Setda Provinsi Jawa Tengah  
Gedung D Setda Provinsi Jawa Tengah  
Jl. Pahlawan 9 Semarang

Yang bertanda tangan di bawah ini :

Nama : Rachmad Nofendi  
Jabatan : Direktur  
Perusahaan : PT Cipta Alpha Omega  
Alamat Perusahaan : Jl. Pantai Indah Barat PIK Avenue Mall Lt.6 No.1 RT.005 RW.006, Kamal Muara,  
Penjaringan, Jakarta Utara, DKI Jakarta

Sebagai Distributor di Indonesia untuk produk merk ISEMC type ISEMC BV Series 8in 8out memberikan dukungan kepada :

Nama Perusahaan : PT. Media Sarana Data  
Alamat Perusahaan : Jl. Daradasih No. 11A, Patangpuluhan, Wirobrajan, Yogyakarta 55251

Untuk pekerjaan pengadaan : **Pengadaan Peralatan Studio Visual Sarana dan Prasarana Situation Room**

Surat dukungan ini meliputi :

- Barang yang ditawarkan 100% baru/ bukan barang rekondisi, bukan dari pasar gelap/ blackmarket.
- Memberikan layanan purna jual.
- Sanggup memberikan garansi suku cadang selama 2 (dua) tahun.
- Sanggup memberikan surat jaminan pemeliharaan selama 2 (dua) tahun, selama masa pemeliharaan sanggup memperbaiki kerusakan dalam waktu 7 (tujuh) hari kerja.

Demikian surat dukungan ini dibuat untuk dipergunakan sebagaimana mestinya.

Jakarta , 11 Maret 2019  
PT Cipta Alpha Omega

  
**PT. CIPTA ALPHA OMEGA**  
Rachmad Nofendi  
(Direktur)

PIK Avenue Lt. 6, Jl. Pantai Indah Kapuk Boulevard, RT.6/RW.2, Kamal Muara,  
Penjaringan, Kota Jakarta Utara, Daerah Khusus Ibukota Jakarta 14470. Telp. 6221 6685110



# Cisco Catalyst 9300 Series Switches

Built for Security, IoT, Mobility, and Cloud

Platform Details

Switch Models and Configurations

The Cisco Catalyst 9300 Series is made up of seven different switch models. Any of the models can be used together in a stack of up to eight units (Figure 1).

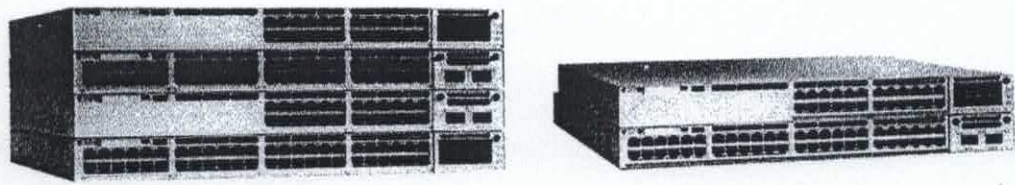


Figure 1.  
Cisco Catalyst 9300 Series Switches

Table 1 lists port scale and power details for the Cisco Catalyst 9300 Series models.

Table 1. Cisco Catalyst 9300 Series Switch Configurations

| Model       | Total 10/100/1000 or Multigigabit copper ports                             | Default AC power supply | Available PoE power | Cisco StackWise-480 | Cisco StackPower |
|-------------|----------------------------------------------------------------------------|-------------------------|---------------------|---------------------|------------------|
| C9300-24T   | 24                                                                         | 350W AC                 |                     | Yes                 | Yes              |
| C9300-48T   | 48                                                                         | 350W AC                 |                     | Yes                 | Yes              |
| C9300-24P   | 24 POE+                                                                    | 715W AC                 | 445W                | Yes                 | Yes              |
| C9300-48P   | 48 POE+                                                                    | 715W AC                 | 437W                | Yes                 | Yes              |
| C9300-24U   | 24 Cisco UPOE                                                              | 1100W AC                | 830W                | Yes                 | Yes              |
| C9300-48U   | 48 Cisco UPOE                                                              | 1100W AC                | 822W                | Yes                 | Yes              |
| C9300-24UX  | 24 Multigigabit Cisco UPOE (100M, 1G, 2.5G, 5G, or 10 Gbps)                | 1100W AC                | 560W                | Yes                 | Yes              |
| C9300-48UXM | 36x 100 Mbps, 1G, 2.5G + 12x Multigigabit (100M, 1G, 2.5G, 5G, or 10 Gbps) | 1100W AC                | 490W                | Yes                 | Yes              |
| C9300-48UN  | 48x 5 Gbps UPOE ports (100M, 1G, 2.5G, 5G)                                 | 1100W AC                | 645W                | Yes                 | Yes              |

Network Modules

The Cisco Catalyst 9300 Series Switches support optional network modules for uplink ports (Figure 2). The default switch configuration does not include the network module. When you purchase the switch, you can choose from the network modules described in Table 2.