

# IM7200 Infrastructure Manager

## with Smart OOB and Failover to Cellular



## Features

- Smart OOB™ with embedded cellular
- Failover to Cellular™
- Flexible Connectivity - embedded cellular, PSTN, and redundant ethernet/fiber
- Additional models with 24 Port switch and 24 Port USB Console
- Simple cabling with software selectable Pin-outs
- Hyperscale, Automation ZTP, API, Lighthouse
- Powerful hardware with integrated 16 GB internal storage



### Console Specifications

|               |                                                                                                                                                                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Console Ports | IM72xx - 8 - 48 x RJ45 RS-232 Software Selectable Console Ports<br>IM7216-24U - 16 x RJ45 RS-232 Software Selectable Console Ports and 24 USB Console Ports<br>IM7216-24E - 16 x RJ45 RS-232 Software Selectable Console Ports and 24 Port Gigabit Switch |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Interfaces

|                    |                                                                                                                                                          |                                                                                                                 |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Ethernet Ports     | 2 x 10/100/1000 Ethernet/SFP Fiber port with 1500V AC Isolation and ESD Protection                                                                       |                                                                                                                 |
| Console Port       | 1 x RJ45 RS-232 Console Port                                                                                                                             |                                                                                                                 |
| PSTN Modem         | 1 x Internal V.92 modem with RJ11 Socket                                                                                                                 |                                                                                                                 |
| Serial Ports       | Software Selectable 50 to 230,400 bps                                                                                                                    |                                                                                                                 |
| USB                | 2 x USB 3.0 console ports                                                                                                                                |                                                                                                                 |
| Remote Access      | Integrated 4G LTE Cellular Card, Integrated V.92 PSTN Dial-in, Dual Ethernet, aggregation & redundancy, Automatic Network Failover, Easy browser UI IPv6 |                                                                                                                 |
| Console Management | Built-in web terminal<br>SSH direct to consoles<br>Optional console keystroke logging                                                                    | Alert on cable disconnects, text pattern match and more<br>Inline power control<br>Multiple concurrent sessions |

### Power Requirements

|         |                                   |
|---------|-----------------------------------|
| Dual AC | Dual socket universal 100-240V AC |
|---------|-----------------------------------|

| Power Requirements                    |                                                                                                                    |                                                                                                                                                                                                                                                    |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dual DC                               | +/- 36V to 72V DC                                                                                                  |                                                                                                                                                                                                                                                    |
| Power Consumption                     | Less than 15W                                                                                                      |                                                                                                                                                                                                                                                    |
| Power Monitoring                      | DDC (all models), DAC (models shipped after June 1, 2019)                                                          |                                                                                                                                                                                                                                                    |
|                                       |                                                                                                                    |                                                                                                                                                                                                                                                    |
| Physical Dimensions                   |                                                                                                                    |                                                                                                                                                                                                                                                    |
| Dimensions and Weight                 | 17 x 10 x 1.75 in - 10 lbs., 44 x 25.4 x 4.5 cm - 4.5 kg                                                           |                                                                                                                                                                                                                                                    |
| Form Factor                           | 1 RU                                                                                                               |                                                                                                                                                                                                                                                    |
|                                       |                                                                                                                    |                                                                                                                                                                                                                                                    |
| Memory and CPU                        |                                                                                                                    |                                                                                                                                                                                                                                                    |
| CPU                                   | 1 GHz ARM SoC (Marvell 88F6283)                                                                                    |                                                                                                                                                                                                                                                    |
| Memory                                | 256 MB DDR2 SDRAM<br>64 MB Embedded NOR Flash                                                                      |                                                                                                                                                                                                                                                    |
| Internal Storage                      | 16 GB Memory                                                                                                       |                                                                                                                                                                                                                                                    |
|                                       |                                                                                                                    |                                                                                                                                                                                                                                                    |
| Environmental                         |                                                                                                                    |                                                                                                                                                                                                                                                    |
| Operating Temperature                 | 5°C to 50°C, 41°F to 122°F                                                                                         |                                                                                                                                                                                                                                                    |
| Storage Temperature                   | -30°C to +60°C, -22°F to +140°F                                                                                    |                                                                                                                                                                                                                                                    |
| Humidity                              | 5% to 90%                                                                                                          |                                                                                                                                                                                                                                                    |
| Environmental Monitoring              | Serial EMD5000 to support physical, smoke, water leak and vibration sensors                                        |                                                                                                                                                                                                                                                    |
|                                       |                                                                                                                    |                                                                                                                                                                                                                                                    |
| Security, Encryption & Authentication |                                                                                                                    |                                                                                                                                                                                                                                                    |
| Console Management                    | SSH<br>FIPS-140-2 compliant Open SSL Module<br>Strong ciphers -AES encryption<br>Cisco-compatible IPsec<br>OpenVPN | AAA - TACACS+, RADIUS, Active Directory/OpenLDAP, Kerberos, with local fallback<br>Two-factor authentication via remote AAA<br>Configurable stateful firewall<br>Actively developed & support and security notifications-frequent firmware updates |
|                                       |                                                                                                                    |                                                                                                                                                                                                                                                    |
| Automation & Scalability              |                                                                                                                    |                                                                                                                                                                                                                                                    |
|                                       | ZTP, Lighthouse<br>RESTful API, programmable and extensible<br>Auto-Response, SNMP, LLDP, NTP                      |                                                                                                                                                                                                                                                    |

| Cellular               |                                                                                                                                                                                              |                                                                                                                                   |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Modules                | IM72xx-LR - Sierra Wireless MC7304   IM72xx-LMx Sierra Wireless M7354   IM72xx-LMP - Sierra Wireless MC7430                                                                                  |                                                                                                                                   |
| Cellular Certification | AT&T and Verizon Certified<br>MIC-R and MIC-T Certified Japanese carriers<br>PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511, A-Tick (GSM/UMTS)<br>CDG TIA/EIA-690, CDG TIA/EIA-98-E (CDMA/EV-DO) |                                                                                                                                   |
| Certifications         |                                                                                                                                                                                              |                                                                                                                                   |
| Emissions              | FCC Part 15 Subpart B (Class A)<br>ICES-003 Issue 5 (2014)<br>AS/NZS CISPR 22: 200410 (Class A)                                                                                              | EN 55032:2015 (Class A)<br>EN 61000-3-2 Harmonics Current Emissions (2014)<br>EN 61000-3-3 Voltage Fluctuation and Flicker (2013) |
| Immunity               | EN 55024 ITE Immunity (2010)<br>IEC 61000-4-2 (2008)<br>IEC 61000-4-3 (2006) A1 (2007) A2 (2010)<br>IEC 61000-4-4 (2012)                                                                     | IEC 61000-4-5 (2014)<br>IEC 61000-4-6 (2014)<br>IEC 61000-4-8 (2010)<br>IEC 61000-4-11 (2004)                                     |
| Other Agency Approvals | IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013, C-Tick<br>FIPS 140-2 validated module Certificate #2473, CCC for IM7208-2-DAC, IM7216-2-DAC, IM7232-2-DAC, IM7248-2-DAC models    |                                                                                                                                   |
| MTBF                   | 100,000 hours                                                                                                                                                                                |                                                                                                                                   |
| Warranty               | 4 years hardware and support                                                                                                                                                                 |                                                                                                                                   |

## Available Models

|                              | Model             | Cellular                   |                               | Model             | Cellular                   |
|------------------------------|-------------------|----------------------------|-------------------------------|-------------------|----------------------------|
| <b>8 Port Dual AC Models</b> | IM7208-2-DAC      | No                         | <b>32 Port Dual AC Models</b> | IM7232-2-DAC      | No                         |
|                              | IM7208-2-DAC-LMA  | Multicarrier AT&T          |                               | IM7232-2-DAC-LMA  | Multicarrier AT&T          |
|                              | IM7208-2-DAC-LMCT | Multicarrier Telus Canada  |                               | IM7232-2-DAC-LMCT | Multicarrier Telus Canada  |
|                              | IM7208-2-DAC-LMCB | Multicarrier Bell Canada   |                               | IM7232-2-DAC-LMCB | Multicarrier Bell Canada   |
|                              | IM7208-2-DAC-LMCR | Multicarrier Rogers Canada |                               | IM7232-2-DAC-LMCR | Multicarrier Rogers Canada |
|                              | IM7208-2-DAC-LMV  | Multicarrier Verizon       |                               | IM7232-2-DAC-LMV  | Multicarrier Verizon       |
|                              | IM7208-2-DAC-LMP  | Multicarrier APAC          |                               | IM7232-2-DAC-LMP  | Multicarrier APAC          |
|                              | IM7208-2-DAC-LR   | Multicarrier Rest of World |                               | IM7232-2-DAC-LR   | Multicarrier Rest of World |
| <b>8 Port Dual DC Models</b> | IM7208-2-DDC      | No                         | <b>32 Port Dual DC Models</b> | IM7232-2-DDC      | No                         |
|                              | IM7208-2-DDC-LMA  | Multicarrier AT&T          |                               | IM7232-2-DDC-LMA  | Multicarrier AT&T          |
|                              | IM7208-2-DDC-LMCT | Multicarrier Telus Canada  |                               | IM7232-2-DDC-LMCT | Multicarrier Telus Canada  |
|                              | IM7208-2-DDC-LMCB | Multicarrier Bell Canada   |                               | IM7232-2-DDC-LMCB | Multicarrier Bell Canada   |
|                              | IM7208-2-DDC-LMCR | Multicarrier Rogers Canada |                               | IM7232-2-DDC-LMCR | Multicarrier Rogers Canada |
|                              | IM7208-2-DDC-LMV  | Multicarrier Verizon       |                               | IM7232-2-DDC-LMV  | Multicarrier Verizon       |
|                              | IM7208-2-DDC-LMP  | Multicarrier APAC          |                               | IM7232-2-DDC-LMP  | Multicarrier APAC          |
|                              | IM7208-2-DDC-LR   | Multicarrier Rest of World |                               | IM7232-2-DDC-LR   | Multicarrier Rest of World |

|                                       | Model             | Cellular                   |                                       | Model             | Cellular                   |
|---------------------------------------|-------------------|----------------------------|---------------------------------------|-------------------|----------------------------|
| <b>16 Port<br/>Dual AC<br/>Models</b> | IM7216-2-DAC      | No                         | <b>48 Port<br/>Dual AC<br/>Models</b> | IM7248-2-DAC      | No                         |
|                                       | IM7216-2-DAC-LMA  | Multicarrier AT&T          |                                       | IM7248-2-DAC-LMA  | Multicarrier AT&T          |
|                                       | IM7216-2-DAC-LMCT | Multicarrier Telus Canada  |                                       | IM7248-2-DAC-LMCT | Multicarrier Telus Canada  |
|                                       | IM7216-2-DAC-LMCB | Multicarrier Bell Canada   |                                       | IM7248-2-DAC-LMCB | Multicarrier Bell Canada   |
|                                       | IM7216-2-DAC-LMCR | Multicarrier Rogers Canada |                                       | IM7248-2-DAC-LMCR | Multicarrier Rogers Canada |
|                                       | IM7216-2-DAC-LMV  | Multicarrier Verizon       |                                       | IM7248-2-DAC-LMV  | Multicarrier Verizon       |
|                                       | IM7216-2-DAC-LMP  | Multicarrier APAC          |                                       | IM7248-2-DAC-LMP  | Multicarrier APAC          |
|                                       | IM7216-2-DAC-LR   | Multicarrier Rest of World |                                       | IM7248-2-DAC-LR   | Multicarrier Rest of World |
| <b>16 Port<br/>Dual DC<br/>Models</b> | IM7216-2-DDC      | No                         | <b>48 Port<br/>Dual DC<br/>Models</b> | IM7248-2-DAC      | No                         |
|                                       | IM7216-2-DDC-LMA  | Multicarrier AT&T          |                                       | IM7248-2-DDC-LMA  | Multicarrier AT&T          |
|                                       | IM7216-2-DDC-LMCT | Multicarrier Telus Canada  |                                       | IM7248-2-DDC-LMCT | Multicarrier Telus Canada  |
|                                       | IM7216-2-DDC-LMCB | Multicarrier Bell Canada   |                                       | IM7248-2-DDC-LMCB | Multicarrier Bell Canada   |
|                                       | IM7216-2-DDC-LMCR | Multicarrier Rogers Canada |                                       | IM7248-2-DDC-LMCR | Multicarrier Rogers Canada |
|                                       | IM7216-2-DDC-LMV  | Multicarrier Verizon       |                                       | IM7248-2-DDC-LMV  | Multicarrier Verizon       |
|                                       | IM7216-2-DDC-LMP  | Multicarrier APAC          |                                       | IM7248-2-DDC-LMP  | Multicarrier APAC          |
|                                       | IM7216-2-DDC-LR   | Multicarrier Rest of World |                                       | IM7248-2-DDC-LR   | Multicarrier Rest of World |

|                                                        | Model                | Cellular                   |                                                | Model                | Cellular                   |
|--------------------------------------------------------|----------------------|----------------------------|------------------------------------------------|----------------------|----------------------------|
| <b>16 Port + 24 Port Gigabit Switch Dual AC Models</b> | IM7216-2-24E-DAC     | No                         | <b>16 Port + 24 Console USB Dual AC Models</b> | IM7216-2-24U-DAC     | No                         |
|                                                        | IM7216-2-24E-DAC-LMA | Multicarrier AT&T          |                                                | IM7216-2-24U-DAC-LMA | Multicarrier AT&T          |
|                                                        | IM7216-2-24E-DAC-LMV | Multicarrier Verizon       |                                                | IM7216-2-24U-DAC-LMV | Multicarrier Verizon       |
|                                                        | IM7216-2-24E-DAC-LMP | Multicarrier APAC          |                                                | IM7216-2-24U-DAC-LMP | Multicarrier APAC          |
|                                                        | IM7216-2-24E-DAC-LR  | Multicarrier Rest Of World |                                                | IM7216-2-24U-DAC-LR  | Multicarrier Rest Of World |
| <b>16 Port + 24 Port Gigabit Switch Dual DC Models</b> | IM7216-2-24E-DDC     | No                         |                                                |                      |                            |
|                                                        | IM7216-2-24E-DDC-LMV | Multicarrier Verizon       |                                                |                      |                            |

Available country codes: -US, -AU, -UK, -EU, -JP, -CN

- Append model number with destination country, e.g. "IM7216-2-DAC-US" for USA.
- -CN models are not available with cellular

## Package Checklist

- Infrastructure Manager IM72xx
- Rack Mount Kit - Two ears and screws (Part# 590001)
- 1 x Cisco Straight DB9F-RJ45 Adapter (Part# 319015)
- 1 x CAT6 Patch Cable 6' (Part# 440089)
- Quick Start Guide
- 2 x Country Specific A/C Power cords (DDC models do not come with power cords)

### Cellular enabled models also include:

- 2 x Cellular Antennas (Part# 569028)
- 1 x Cellular Antenna Extender with magnetic base (Part# 569052)

## Optional Accessories

|          | Part Number | Description                                                  |
|----------|-------------|--------------------------------------------------------------|
| Adapters | 319014      | Adapter - DB9F to RJ45 straight serial - DCE -For X2 Pinout  |
|          | 319015      | Adapter - DB9F to RJ45 crossover serial - DTE -For X2 Pinout |
|          | 319016      | Adapter - DB9M to RJ45 straight serial - DCE -For X2 Pinout  |
|          | 440089      | Cable - Straight through CAT6 - 6' length                    |

|               | Part Number | Description                                                 |
|---------------|-------------|-------------------------------------------------------------|
| Environmental | EMD5781-10  | Door contact sensor - 10' Cable length                      |
|               | EMD5782     | Vibration sensor - 3' Cable length                          |
|               | EMD5779-QA  | Smoke detector/alarm (220V AC, IEC C-13)                    |
|               | EMD5890-QA  | Smoke Detector/alarm (110V AC, NEMA 5-15)                   |
|               | EMD5780     | Water leak detector - 3' Cable length                       |
| Mounting      | 590001      | Rack Mount Kit - Ears and Screws - CM7100 / IM4200 / IM7200 |

## Warranty

| Part Number     | Description                                    |
|-----------------|------------------------------------------------|
| Included        | 4 year standard warranty                       |
| OGEXTWAR5-IM72  | Warranty IM7200 (Extends to 5th year warranty) |
| OGEXTWAR6-ACM70 | Warranty IM7200 (Extends to 6th year warranty) |