

# IM7200 Infrastructure Manager

With Smart OOB™ and Failover to Cellular™



## Features

- Smart OOB with embedded cellular
- Flexible Connectivity – embedded cellular, PSTN, redundant ethernet/fiber and WiFi
- 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 | <b>IM72xx</b> – 8 – 48 x RJ45 RS-232 Software Selectable Console Ports<br><b>IM7216-24U</b> – 16 x RJ45 RS-232 Software Selectable Console Ports and 24 USB Console Ports<br><b>IM7216-24E</b> – 16 x RJ45 RS-232 Software Selectable Console Ports and 24 Port Gigabit Switch |
|---------------|--|

### Interface

|                    |  |   |
|--------------------|--|---|
| 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   |   |
| WiFi               | 802.11 a/b/g/n, AP or Client mode, Infrastructure or AD-hoc<br>WEP, WPA-PSK, WPA2-PSK, WPA-None, WPA-PEAP-MSCHAPv2<br>Encryption: TKIP, AES<br>Certified MIC-R and MIC-T |   |
| 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<br>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 |
| Dual DC           | +/- 36V to 72V DC                 |
| Power Consumption | Less than 15W                     |

### 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 & 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, -20°F to +140°F   |
| Humidity                 | 5% to 90%   |
| Environmental Monitoring | Serial EMD5000 to support physical, smoke, water leak and vibration sensors |

### Security, Encryption & Authentication

|   |  |
|---|--|
| 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                | <b>IM72xx-LR</b> – Sierra Wireless MC7304   <b>IM72xx-LMx</b> Sierra Wireless MC7354   <b>IM72xx-LMP</b> – 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 4 February 2004<br>AS/NZS CISPR 22: 2004 Class A<br>EN 55022 Emissions Class A (2009) A1 (2010)  | EN 55022 Emissions Class A (2009) A1 (2010)<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 (2013)<br>IEC 61000-4-8 (2009)<br>IEC 61000-4-11 (2004)   |
| Other Agency Approvals | CE, UL 1950, TUV, C-Tick, RoHS compliant, Security features to support NERC CIP standards,<br>FIPS 140-2 validated module Certificate #2473, CCC |   |
| 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>                  | IM7232-2DAC          | 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 |
| <b>16 Port Dual AC Models</b>                          | IM7216-2-DAC-US      | No                         | <b>48 Port Dual AC Models</b>                  | IM7248-2-DAC-US      | 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-US   | Multicarrier Rest of World |  | IM7248-2-DAC-LR      | Multicarrier Rest of World |
| <b>16 Port Dual DC Models</b>                          | IM7216-2-DDC         | No                         | <b>48 Port Dual DC Models</b>                  | IM7248-2-DDC         | 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 |
| <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-LMA | Multicarrier AT&T          |  |                      |                            |
|  | 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 and do not have WiFi. 24 Port Console USB and 24 Port Gigabit switch models are not

## Package Checklist

- Infrastructure Manager IM7200
- Rack Mount Kit – Two ears and screws (Part# 590001)
- Power cords for AC models only
- 2 x CAT5 Patch Cable 6'
- Cable Kit - 319014 DB9F-RJ45 Straight, 319015 DB9F-RJ45 Crossover, 319016 DB9M-RJ45 Straight, Loopback test cable
- Quick Start Guide

## Optional Accessories

|                      | Part Number | Description  |
|----------------------|-------------|--|
| <b>Adapters</b>      | 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 |
|                      | 440016      | Cable - Straight through CAT5 - 6' length                    |
| <b>Environmental</b> | EMD5000-02  | Environmental Monitoring Device - X2 Pinout                  |
|                      | 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                        |
| <b>Mounting</b>      | 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-IM72 | Warranty IM7200 (Extends to 6th year warranty) |