## XTREME 256-C

## 256 Port Fan-In L-Band RF Matrix Switch



## General Description:

The XTREME 256-C next generation L-band matrix switch features 256 ports in a compact 12 RU chassis. The XTREME 256-C is a full fan-in (combining), non-blocking switch where one or multiple inputs can be routed to an output. The XTREME 256-C features an industry exclusive flexible matrix architecture (patented) that supports both symmetric and asymmetric configurations of 256 combined inputs and outputs in a single chassis. Asymmetric configurations such as $192 \times 64,160 \times 96$, and more can be implemented as well as the standard $128 \times 128$ configuration. It is designed for maximum reliability with redundant power, fans trays, and control cards plus RF redundancy. It is also designed for ease of maintenance with built-in self-test (BIST) capability and the ability to hot-swap all active components from the front of the unit. The XTREME 256-C is highly scalable and can easily be expanded up to $2048 \times 2048$ using multiple XTREME 256-C modules. Optional integrated expansion ports allow for large systems without using external expansion modules, significantly reducing system size and number of cables.
Features \& Benefits:

- Compact modular design, 256 ports in 12 RU, easily expandable to $2048 \times 2048$
- Asymmetrical configurations up to 248 inputs in a single chassis
- Adjustable gain on inputs allow RF performance optimization
- Option for fiber optic inputs
- Touchscreen local control and embedded web GUI interface
- Easy hot-swap of all active cards, power supplies, and fan trays from the front
- Redundant hot-swap control cards plus independent GUI control system
- Remotely controlled via web browser GUI interface, SNMP, TELNET or TCP/IP via customer supplied PC

| Specifications:*1 | XTREME 256-C |
| :---: | :---: |
| Configuration: | 128 Inputs/128 Outputs |
| RF Connectors: | F-Type, BNC $75 \Omega$ or $50 \Omega$, SMA, Mixed or Optical Input Receivers SC/APC or LC/APC |
| Impedance: | $75 \Omega$ or $50 \Omega$ |
| Operating Frequency: | $850-2450 \mathrm{MHz}$ |
| Frequency Response: | $\begin{aligned} & \pm 3 \mathrm{~dB} \\ & \pm .75 \mathrm{~dB} \text { Over Any } 36 \mathrm{MHz} \text { Channel } \end{aligned}$ |
| Input P1dB: | +6 dBm |
| Noise Figure: | $<23 \mathrm{~dB}$ @ 0 dB Gain |
| OIP3: | +15 dBm |
| Input Return Loss: | 14 dB Typ. 12 dB Min. |
| Output Return Loss: | 15 dB Typ. 12 dB Min. |
| Isolation (input-to-input): | 75 dB Typ. 65 dB Min. |
| Isolation (output-to-output): | 75 dB Typ. 65 dB Min. |
| Isolation (input-to-output): | 60 dB Typ. 55 dB Min. |
| Input Gain Range: | -17.5 dB to +14 dB in 0.5 dB Steps |
| RF Sensing: | +10 dBm to -50 dBm |
| Output P1dB: | +14 dBm |
| Local Control: | 15" Front Panel Touchscreen |
| Remote Control: | SNMP, TELNET, TCP/IP; Web Browser Interface Via Ethernet |
| Inter-Module Control Data: | XR Bus |
| Power Requirements: | 100-250 VAC Autoranging, $50 / 60 \mathrm{~Hz}$ |
| Power Consumption: | 525 W @ 120 VAC 650 W @ 240 VAC |
| Size: | 12 RU Total Rack Space Required, 21" H x 19" W x 20.5" D to Rear Panel 22" (Including Rear Handles) |
| Weight: | 150 lbs |

