

# X18 PRO<sub>MAX</sub>

## Advanced LTE WiFi Mining Router

Introducing the Industrial Mine Communication Router, a powerful and reliable networking solution designed specifically for mining environments. With six gigabit Ethernet ports, 4G LTE and WiFi connectivity, this router provides a fast and secure way to connect your mining equipment, machinery, and devices to your network.

The router's six gigabit Ethernet ports allow for high-speed wired connections to your equipment and devices, ensuring fast and stable data transfer. This is particularly important in mining operations where data is critical to ensure efficient and safe operation. In addition to wired connectivity, the router also features 4G LTE and WiFi connectivity, allowing you to connect wirelessly to devices such as tablets, smartphones, and laptops.

### Base System

|           |                              |
|-----------|------------------------------|
| CPU       | 1.3GHz Dual Core ARM         |
| Memory    | 1 GB                         |
| Extension | 2 x Mini-PCle<br>2 x Shields |
| Power     | 12 – 48 VDC                  |
| SIM       | 1x Micro SIM<br>1x Embedded  |

### Network

|          |                               |
|----------|-------------------------------|
| Ethernet | 6 x Gigabit Ethernet          |
| Mobile   | 1 x LTE Advanced              |
| WiFi     | 1 x 802.11a/b/g/n/ac (WiFi 5) |
| GPS/GNSS | 1 x Receiver                  |

### Environment

|            |                            |
|------------|----------------------------|
| Dimensions | 139 x 77 x 219 (W x H x D) |
| Temp       | -25 °C to +80 °C           |
| Ingress    | IP66, IP67, IP68           |
| MTBF       | 35.4 years (310,000 hours) |

### Power

|           |                        |
|-----------|------------------------|
| Voltage   | 12 VDC, 24 VDC, 48 VDC |
| Tolerance | 15%                    |
| Avg/Max   | 6 W, 15W               |

### USB

|           |   |
|-----------|---|
| Interface | USB 2.0<br>RS232 adapter, RS-485 adapter, CAN adapter, Ethernet adapter |
| Mode      |   |

### Serial / Fieldbus

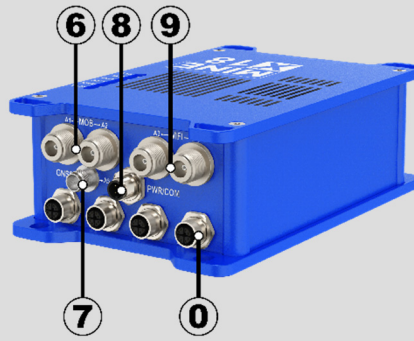
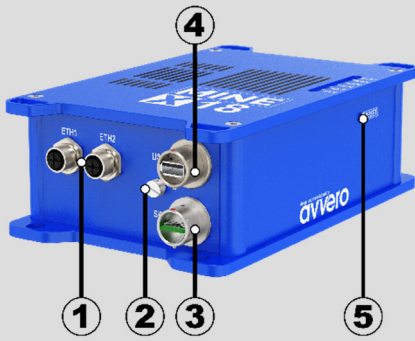
|           |   |
|-----------|---|
| Interface | 1   |
| Standards | RS-232/485<br>Modem, Pair Connection, Reverse Telnet, RFC2217, TCP Client, TCP Server, UDP, Console |
| Modes     |   |

### Software

Management (CLI, WEB, SNMP, Telnet, SSH)  
 Routing (RIP, OSPF, BGP, Virtual router)  
 Multicast (IGMP, PIM)  
 Advanced (GRE, IP-IP, VxLAN, L2TPv3)  
 Network Services (DHCP, QOS, HotSpot, DNS)  
 NAT (static, SNAT, DNAT)  
 VPN (IPSec, OpenVPN)  
 Automation (Scripting, Auto-Installation)  
 L3 VPN, pseudo-wires  
 Advanced Features (GNSS)  
 Advanced Features (OpenVPN, DynDNS)  
 Voice Gateway  
 CAN Bus (FMS)

This allows you to monitor and manage your mining operations from anywhere on-site, increasing productivity and efficiency. The Industrial Mine Communication Router is designed to withstand harsh mining environments, with a rugged and durable casing that can withstand extreme temperatures, vibrations, and shocks. It is also easy to install and configure, with a user-friendly web interface allowing quick and simple setup.

Overall, the Industrial Mine Communication Router, with its six gigabit Ethernet ports, 4G LTE and WiFi connectivity, and rugged design, is the perfect networking solution for mining operations looking for a reliable, fast, and secure way to connect their equipment and devices.



- 1 Gigabit Ethernet (M12 X-coded female)
- 2 Vent
- 3 Micro SIM
- 4 USB Type A
- 5 Reset Button
- 6 WWAN LTE Primary / Secondary (N-Type)
- 7 Positioning GNSS GPS (TNC)
- 8 Power / IO (M12 5-pin A-coded female)
- 9 WLAN WiFi (N-Type)
- 0 Gigabit Ethernet (M12 X-coded female)

## Interfaces

### Mobile / Cellular

|            |                                |
|------------|--------------------------------|
| Interfaces | 1                              |
| Modem      | Sierra Wireless, Telit         |
| Technology | 3G, 4G-LTE, 5G                 |
| Network    | Up to LTE Cat. 18 3GPP Rel. 12 |

### RF Antenna Cross Switch Module

|            |                  |
|------------|------------------|
| Interfaces | 1                |
| Technology | DPDT             |
| Frequency  | 100 MHz to 6 GHz |

### WiFi / WLAN

|            |                                    |
|------------|------------------------------------|
| Interfaces | 1                                  |
| Standards  | 802.11a/b/g/n/ac (WiFi 5)          |
| Bands      | Dual-band 2.4 / 5 GHz              |
| Data rate  | 144 Mbps 2.4 GHz<br>300 Mbps 5 GHz |
| MIMO Mode  | 2.4 GHz 2x2 MIMO<br>5 GHz MIMO     |
| Modes      | Client, Mesh, Access Point, Bridge |

### GPS/GNSS

|             |   |
|-------------|---|
| Receiver    | BeiDou, Galileo, GLONASS, GPS/QZSS                                |
| Sensitivity | Up to -167 dBm  |
| Accuracy    | Up to 2.5 m CEP   |
| Services    | Standalone, Assisted GPS, Data server with JSON, NMEA data stream |
| Antenna     | Active, Passive   |

### RF Connectors

|          |               |
|----------|---------------|
| Mobile   | N-Type Female |
| WIFI     | N-Type Female |
| GPS/GNSS | N-Type Female |

## Modems

### MC7430

|            |  |
|------------|--|
| Technology | LTE - cat 6  |
| 4G bands   | B1, B3, B5, B7, B8, B18, B19, B21, B28, B38, B39, B40, B41 |
| 3G bands   | B1, B5, B6, B8, B9, B19                                    |

### LN920A12-WW

|            |   |
|------------|---|
| Technology | LTE - cat 12  |
| 4G bands   | B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B38, B39, B40, B41, B42, B43, B48, B66, B71 |
| 3G bands   | B1, B2, B19, B8, B4, B5, B9   |

## Ordering

|                            |  |
|----------------------------|--|
| <b>MX-18-P-LcW-G</b>       | X18 Pro Max - 6xGe + 1xLTE (MC7430) + 1xWLAN + GNSS              |
| <b>MX-18-P-LpW-G</b>       | X18 Pro Max - 6xGe + 1xLTE (LN920A12-WW) + 1xWLAN + GNSS         |
| <b>MX-18-ANT-RF-SWITCH</b> | Antenna redundancy module - Dual-pole double-throw switch (DPDT) |