MINE Xn

5G READY

X18 GE3

5G/LTE WiFi 3xGigabit Ethernet Router

Introducing the Industrial-Grade Mobile Router, the ultimate networking solution for mining operations that require high reliability and uptime. With advanced features such as ruggedised design and mobile connectivity, this router provides fast and secure connectivity for all your critical mining equipment and devices.

Engineered for harsh mining environments, with a durable casing that withstands extreme temperatures, vibrations, and shocks. It ensures the router remains operational and reliable even in the most demanding conditions. Experience a transformative leap in industrial connectivity with our 5G Industrial-Grade router, offering unparalleled benefits such as lightning-fast data transmission, ultra-low latency, and robust reliability, ensuring seamless and efficient operations for a new era of smart manufacturing and industrial automation.

Base System

CPU	1.3GHz Dual Core ARM
Memory	1 GB
Extension	2 x Mini-PCIe 2 x Shields
Power	12 – 48 VDC
SIM	2x Micro SIM 1x SD Card 1x Embedded

Network

Ethernet	3 x Gigabit Ethernet
Mobile	1 x 5G/LTE Advanced
Wi-Fi	1 x 802.11a/b/g/n/ac (Wi-Fi 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
Mode	RS232 adapter, RS-485 adapter, CAN adapter, Ethernet adapter

Serial / Fieldbus

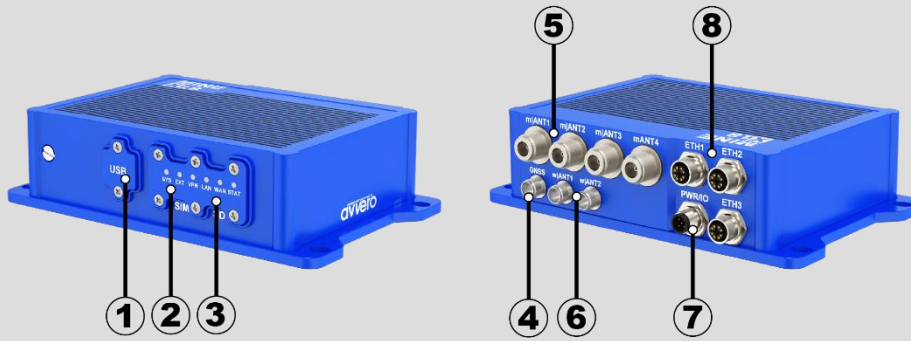|	
Interface	1
Standards	RS-232/485
Modes	Modem, Pair Connection, Reverse Telnet, RFC2217, TCP Client, TCP Server, UDP, Console

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)

The router's mobile connectivity provides a secure and reliable way to connect your critical mining equipment and devices to your network. This is particularly useful in remote mining sites where wired connectivity may not be available or feasible. The Industrial-Grade mobile router also includes advanced security features such as VPN, firewall, and intrusion prevention, ensuring your network is protected against cyber threats and attacks.

Easy to install and configure, the router has a user-friendly web interface that allows quick and simple setup. It also includes advanced management tools, such as remote monitoring and diagnostics, that allow you to monitor and manage your network performance in real-time. Overall, this cutting edge Industrial-Grade mobile Router is the perfect networking solution for mining operations that require high reliability and uptime. Its advanced features and rugged design make it a valuable investment for any mining operation looking to enhance its network performance and security while minimising downtime and maximising productivity.

![MINE X N logo]

1 USB
2 Dual Micro SIM
3 SD Card
4 Positioning GNSS GPS (TNC)
5 WWAN LTE Primary / Secondary (N-Type)
6 WLAN Dual-band Wi-Fi (TNC)
7 3 x Gigabit Ethernet (M12 X-coded female)
8 Power / IO (M12 5-pin A-coded female)

Interfaces

Mobile / Cellular

Interfaces	1
Modem	Sierra Wireless, Telit
Technology	3G, 4G-LTE, 5G
Network	5G Rel 16 LTE Cat 20

RF Antenna Cross Switch Module

Interfaces	1
Technology	DPDT
Frequency	100 MHz to 6 GHz

Wi-Fi / WLAN

Interfaces	1
Standards	802.11a/b/g/n/ac (Wi-Fi 5)
Bands	Dual-band 2.4 / 5 GHz
Data rate	144 Mbps 2.4 GHz 300 Mbps 5 GHz
MIMO Mode	2.4 GHz 2x2 MIMO 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	TNC Female

Modems

FN980 5G-NR

Technology	4G Cat 20 and 5G Rel 16
5G bands	n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79
4G bands	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71

LN920 4G-LTE

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

MC7430 4G-LTE

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

Ordering

MX-18-GE3-N-G	MINEx 18 GE3 | 3 x GbE + 1 x 5G/LTE (FN980) + GNSS
MX-18-GE3-NW-G	MINEx 18 GE3 | 3 x GbE + 1 x 5G/LTE (FN980) + 1 x Wi-Fi + GNSS
MX-18-GE3-Lp-G	MINEx 18 GE3 | 3 x GbE + 1 x LTE (LN920) + GNSS
MX-18-GE3-LpW-G	MINEx 18 GE3 | 3 x GbE + 1 x LTE (LN920) + 1 x Wi-Fi + GNSS
MX-18-GE3-Lc-G	MINEx 18 GE3 | 3 x GbE + 1 x LTE (MC7430) + GNSS
MX-18-GE3-LcW-G	MINEx 18 GE3 | 3 x GbE + 1 x LTE (MC7430) + 1 x Wi-Fi + GNSS
MX-18-ANT-RF-SWITCH	Antenna redundancy module - Dual-pole double-throw switch (DPDT)