MINE X18

5G READY

X18 GE6

5G/LTE WiFi 6xGigabit Ethernet Router

The Ultimate Industrial Mine Communications Router – a robust and dependable networking solution tailored for mining environments. Equipped with six gigabit Ethernet ports, as well as 5G/LTE and WiFi capabilities, this router ensures a swift and secure connection for your mining equipment, machinery, and control systems to your network.

The router's six gigabit Ethernet ports facilitate high-speed wired connections for your equipment and devices, ensuring rapid and stable data transfer. This is vital for mining operations, where reliable data flow is crucial for maintaining efficiency and safety. Additionally, the router features 5G/LTE and WiFi connectivity, allowing seamless wireless connections to devices such as tablets, smartphones, and laptops.

Base System

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

Network

Ethernet	6 x Gigabit Ethernet
Mobile	1 x 5G/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 ℃ to +80 ℃
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

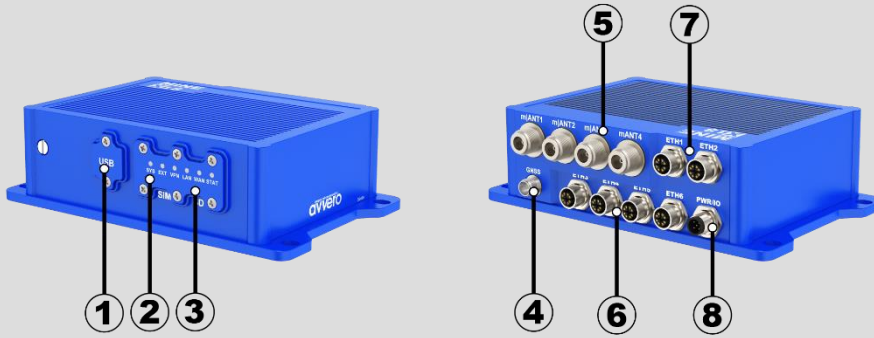|	
Interface	USB 2.0
Mode	RS232 adapter, RS-485 adapter, CAN adapter, Ethernet adapter

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 GE6, equipped with a high-speed 5G/LTE module, allows you to monitor and manage your mining operations from virtually anywhere, enhancing productivity and efficiency. It is engineered to withstand the harshest mining environments, featuring a robust alloy rugged enclosure that endures extreme temperatures, impacts, vibrations, and shocks. The impressive IP ratings underscore its durability. This state-of-the-art router is easy to install and configure, with a user-friendly web interface that enables quick and straightforward setup.

Overall, this heavy-duty Industrial Mine Communications Router, with its six gigabit Ethernet ports, 5G/LTE, WiFi, and GPS connectivity, along with its rugged design, is the ideal networking solution for mining operations seeking a reliable, fast, and secure way to connect their vehicles, equipment, and devices.

1 USB Type A
2 Dual Micro SIMs
3 SD Card
4 Positioning GNSS GPS (TNC)
5 WWAN LTE Primary / Secondary (N-Type)
6 4x Gigabit Ethernet (M12 X-coded female)
7 2x 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

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 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-GE6-N-G	MINEx GE6 | 6 x GbE + 1 x 5G/LTE (FN980) + GNSS
MX-18-GE6-LpW-G	MINEx GE6 | 6 x GbE + 1 x LTE (LN920) + 1 x WiFi + GNSS
MX-18-GE6-LcW-G	MINEx GE6 | 6 x GbE + 1 x LTE (MC7430) + 1 x WiFi + GNSS
MX-18-ANT-RF-SWITCH	Antenna redundancy module - Dual-pole double-throw switch (DPDT)