

datamax4G



Datamax 4G (MA100-1010-4G) LTE 4-Port Ethernet Router with GPS, RS232 & Wi-Fi Specifications



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Table of Contents

| | |
|------------------------------------|---|
| Cellular Specification..... | 3 |
| GPS Specification | 3 |
| WIFI Specification | 4 |
| Hardware Specification..... | 4 |
| Serial Cable (RS232) Pinouts | 6 |

Cellular Specification

| Standard and Band | Bandwidth | TX power | RX sensitivity |
|--|--|----------|----------------|
| DATAMAX+ GPS+WCDMA WIFI ROUTER | | | |
| LTE FDD: 1(2100MHz), 3(1800MHz), 5(850MHz), 7(2600MHz), 8(900MHz), 18(800MHz), 19(800MHz), 21(1500MHz), 28 (700MHz) UMTS: 1(2100MHz), 5(850MHz), 6(850MHz), 8(900MHz), 9(1700MHz), 19(800MHz) | LTE FDD: Download speed Max. 300Mbps, Upload speed Max. 50Mbps DC-HSPA+: Download speed Max. 42Mbps, Upload speed Max. 5.76Mbps HSPA+: Download speed Max. 21Mbps, Upload speed Max. 5.76Mbps HSDPA: Download speed Max. 7.2Mbps, HSUPA, Upload speed Max. 5.76Mbps | <23dBm | <-97 dBm |

GPS Specification

| Item | Content |
|------------------|---|
| GPS Module | Industrial GPS module |
| Receiver Type | 50-channle GPS L1 (1575.42MHz) C/A code SBAS: WAAS, EGNOS, MSAS, GAGAN Support GALILEO |
| Max. update rate | 4 Hz |
| Accuracy | Position: 2.5m CPE SBAS: 2.0m CPE |
| Acquisition | Cold starts: 29S Warm starts: 29S |

| | |
|-----------------|---|
| | Aided starts: <1S Hot starts: <1S |
| Sensitivity | Tracking: -160dBm Reacquisition: -160dBm Cold starts: -144dBm |
| Timing accuracy | RMS: 30ns 99%: <60ns Granularity: 21ns |
| Time pulse | Configurable, 0.25 to 1000Hz |

WIFI Specification

| Item | Content |
|----------------|---|
| Standard | IEEE802.11b/g/n |
| Bandwidth | IEEE802.11b/g: 54Mbps (max) IEEE802.11n: 150Mbps (max) |
| Security | WEP, WPA, WPA2, etc. WPS (optional) |
| TX power | 20dBm (11n), 24dBm(11g), 26dBm (11b) |
| RX sensitivity | <-72dBm@54Mbps |

Hardware Specification

| Item | Content |
|-------|---------------------------|
| CPU | Industrial 32bits CPU |
| FLASH | 16MB (Extendable to 64MB) |
| SDRAM | 128MB |

Interface Type

| Item | Content |
|------|--|
| WAN | 1 10/100 Mbps WAN port(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection |
| LAN | 4 10/100 Mbps Ethernet ports(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection |

| | |
|-----------|--|
| Serial | 1 RS232 port, 15KV ESD protection Data bits: 5, 6, 7, 8 Stop bits: 1, 1.5(optional), 2 Parity: none, even, odd, space(optional), mark(optional) |
| | Baud rate: 2400~115200 bps |
| Indicator | "Power", "System", "Online", "GPS", "Local Network", "WAN", "WIFI", "Signal Strength" |
| Antenna | Cellular: Standard SMA female interface, 50 ohms WIFI: Standard SMA male interface, 50 ohms GPS: standard SMA female interfaces |
| SIM/UIM | Standard 3V/1.8V user card interface, 15KV ESD protection |
| Power | Standard 3-PIN power jack, reverse-voltage and overvoltage protection |
| Reset | Restore the router to its original factory default settings |



Power Input

| Item | Content |
|----------------|---|
| Standard Power | DC 12V/1.5A |
| Power Range | DC 5~36V. We recommend using the standard DC 12VDC/1.5A power adaptor available from Maxon |
| Consumption | Standby 292~342mA @12VDC Communication 355~592mA @12VDC Schedule Shutdown 2.57 ~4.2mA @12 VDC |

Physical Characteristics

| Item | Content |
|------------|---------------------------------|
| Housing | Iron, providing IP30 protection |
| Dimensions | 207x135x28 mm |
| Weight | 790g |

Environmental Limits

| Item | Content |
|-----------------------|------------------------|
| Operating Temperature | -35~+75°C (-31~+167°F) |
| Storage Temperature | -40~+85°C (-40~+185°F) |
| Operating Humidity | 95% (Non-condensing) |

Serial Cable (RS232) Pinouts

The pin-out connections of the serial cable are as follows:

| RJ45 | DB9F |
|------|------|
| 1 | 8 |
| 2 | 6 |
| 3 | 2 |
| 4 | 1 |
| 5 | 5 |
| 6 | 3 |
| 7 | 4 |
| 8 | 7 |

The signal definition of the DB9F serial communication interface is as follows:

| Pin | RS232 signal | Direction |
|-----|--------------|-----------|
| 1 | DCD | Output |
| 2 | RXD | Output |

| | | |
|---|-----|--------|
| 3 | TXD | Input |
| 4 | DTR | Input |
| 5 | GND | |
| 6 | DSR | output |
| 7 | RTS | input |
| 8 | CTS | output |