641M 4G LTE Router

If using Dual Antenna Diversity, Antennas must be separated at least 165mm

37cm (15")

COLINEAR ANTENNA

WEATHERPROOF ALL CONNECTORS WITH "3M 23" TAPE

Surge Arrestor (Recomended)

Stress Relief Loop

MAST

Coaxial Cable

PROVIDE GOOD GROUND CONNECTION TO ANTENNA MOUNT, SUPPLY AND SURGE ARRESTOR

Surge Ground on Negative supply Terminal

MODEM

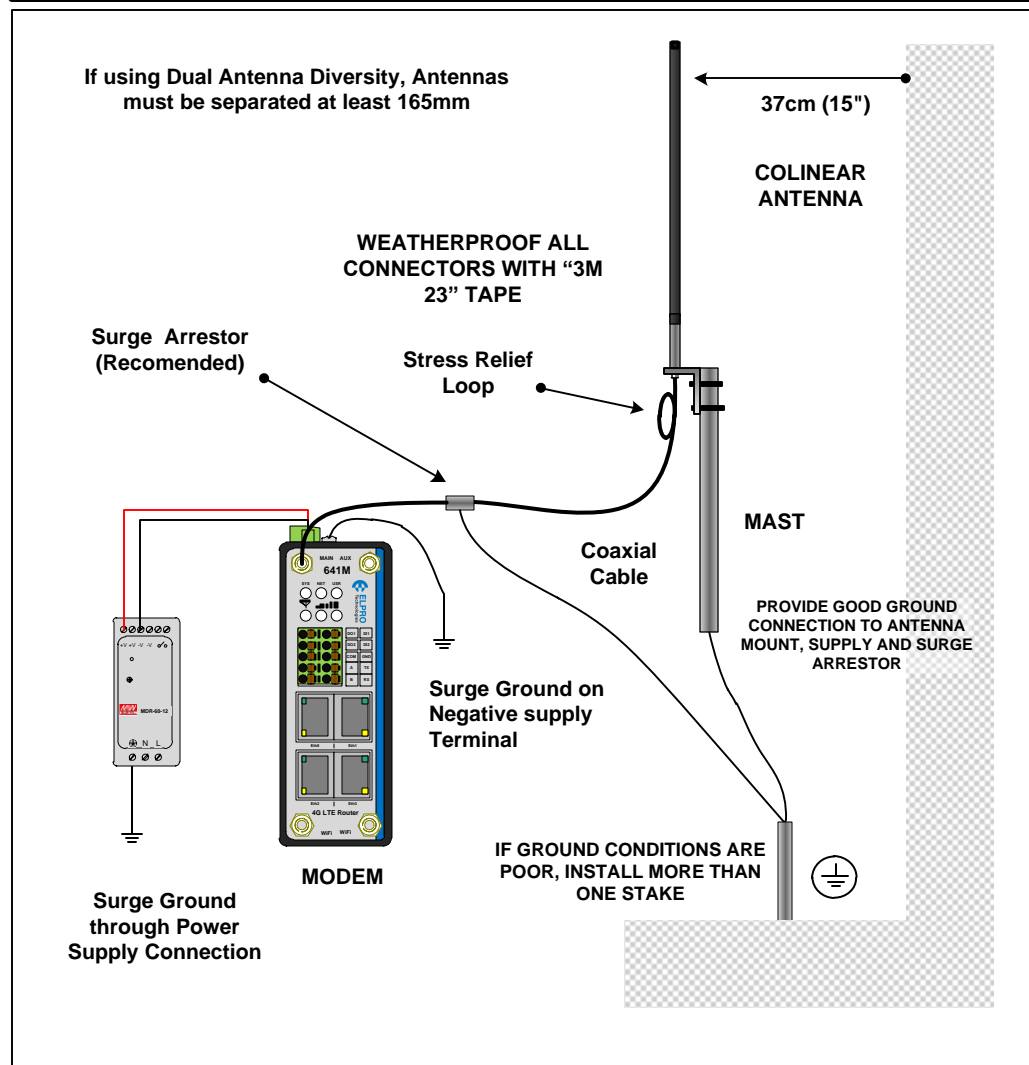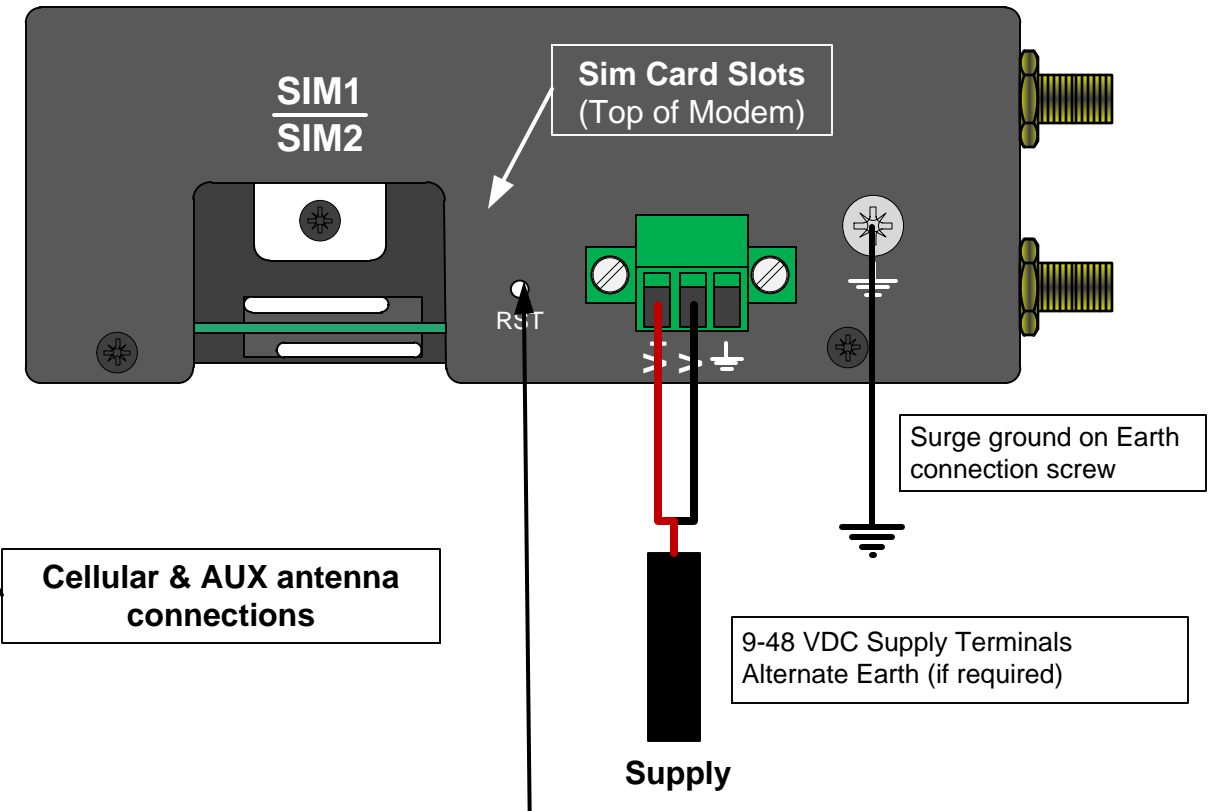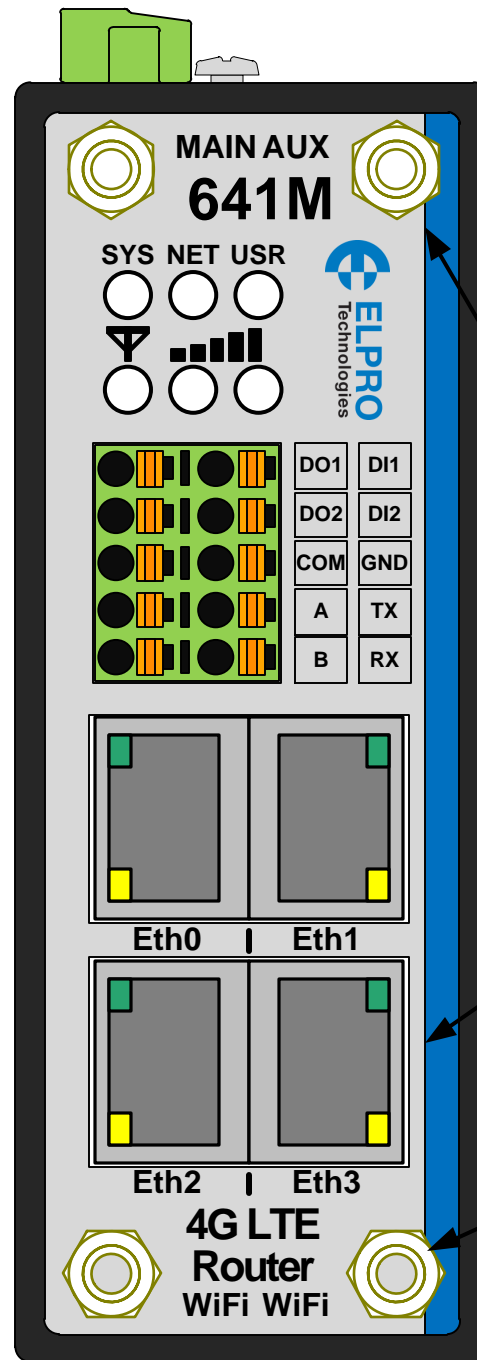IF GROUND CONDITIONS ARE POOR, INSTALL MORE THAN ONE STAKE

Surge Ground through Power Supply Connection

NOTES

- ALL connections must be SELV (Safety Extra Low Voltage <50V AC & <120V DC)

- WARNING – Explosion Hazard – Do not Disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.

- "GND" Screw must be connected to EARTH / GROUND as close as practical to the unit.

- To comply with FCC RF Exposure requirements in section 1.1310 of the FCC Rules, antennas used with this device must be installed to provide a separation distance of at least 45 cm (17 inches) from all persons.
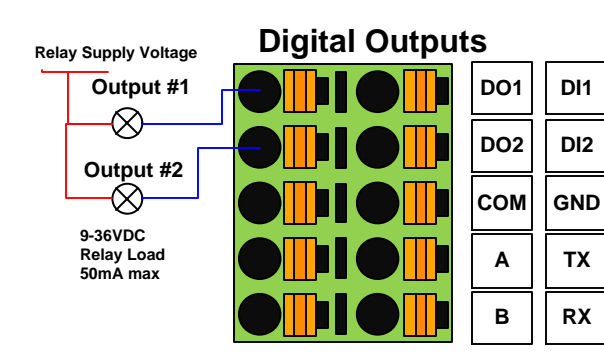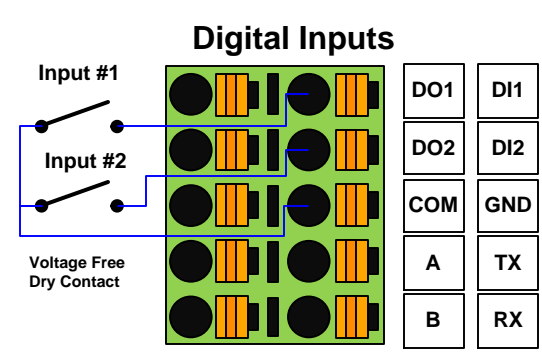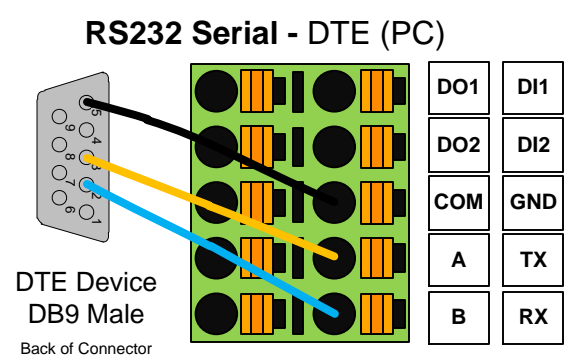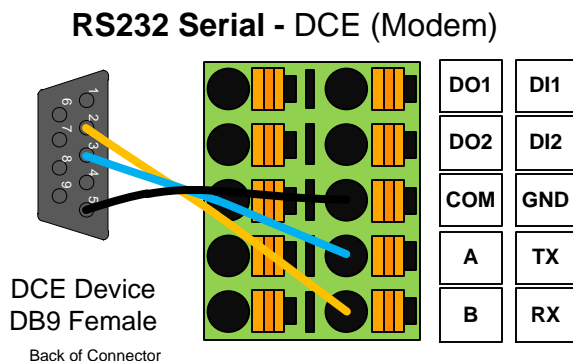
MAIN AUX
641M

SYS NET USR

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DO1	DI1
DO2	DI2
COM	GND
A	TX
B	RX

Eth0 | Eth1

Eth2 | Eth3

4G LTE Router
WiFi WiFi

Cellular & AUX antenna connections

Eth2 & Eth3, model specific

WiFi antenna connections, model specific

SIM1 / SIM2

Sim Card Slots (Top of Modem)

RsT

Surge ground on Earth connection screw

9-48 VDC Supply Terminals Alternate Earth (if required)

Supply

Reboot: Press for < 3 sec.
Factory Reset: Press between 3 – 10 Sec then reboot manually.

Factory default IP Address: 192.168.1.1

RS485 Serial

RS485

DO1	DI1
DO2	DI2
COM	GND
A	TX
B	RX

RS232 Serial - DCE (Modem)

DCE Device DB9 Female
Back of Connector

DO1	DI1
DO2	DI2
COM	GND
A	TX
B	RX

RS232 Serial - DTE (PC)

DTE Device DB9 Male
Back of Connector

DO1	DI1
DO2	DI2
COM	GND
A	TX
B	RX

Digital Inputs

Input #1

Input #2

Voltage Free Dry Contact

DO1	DI1
DO2	DI2
COM	GND
A	TX
B	RX

Digital Outputs

Relay Supply Voltage

Output #1

Output #2

9-36VDC Relay Load 50mA max

| DO1 | DI1 |
DO2	DI2
COM	GND
A	TX
B	RX

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641M 4G LTE Router

## Setting the basic connection and APN

1. Remove the screw from the small plate on the top/side of the modem to access the SIM card holder. Insert the SIM card(s) Into the SIM sockets. Push SIM card all the way until there is a positive click and SIM card is retained. To remove just push the SIM card down and it will spring back up.
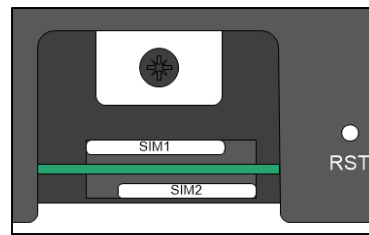

2. Before switching on the modem, please ensure the antennas are securely connected and connect the 9-48 Vdc power supply to the V- and V+. GND terminal should be connected to surge earth.
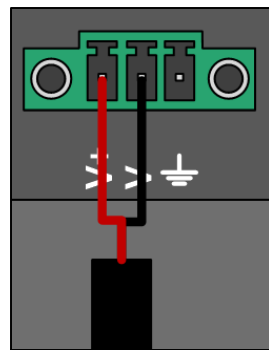
3. Connect any of the Modems Ethernet ports to a PC via an RJ45 Ethernet cable. Set the PC to obtain an IP address automatically from the modem router. The PC will get an IP address in the range of 192.168.1.XXX.
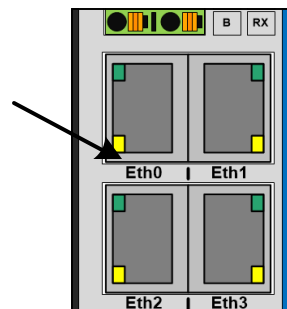
4. Open the Web browser and type in 192.168.1.1 into the Address bar. A Login window will appear, enter the login details as: Username = admin and Password = admin
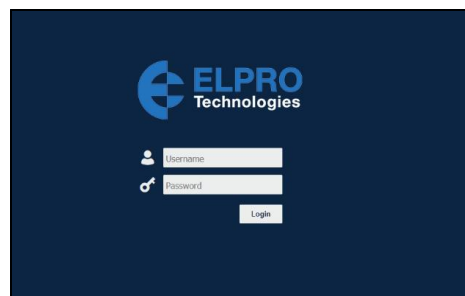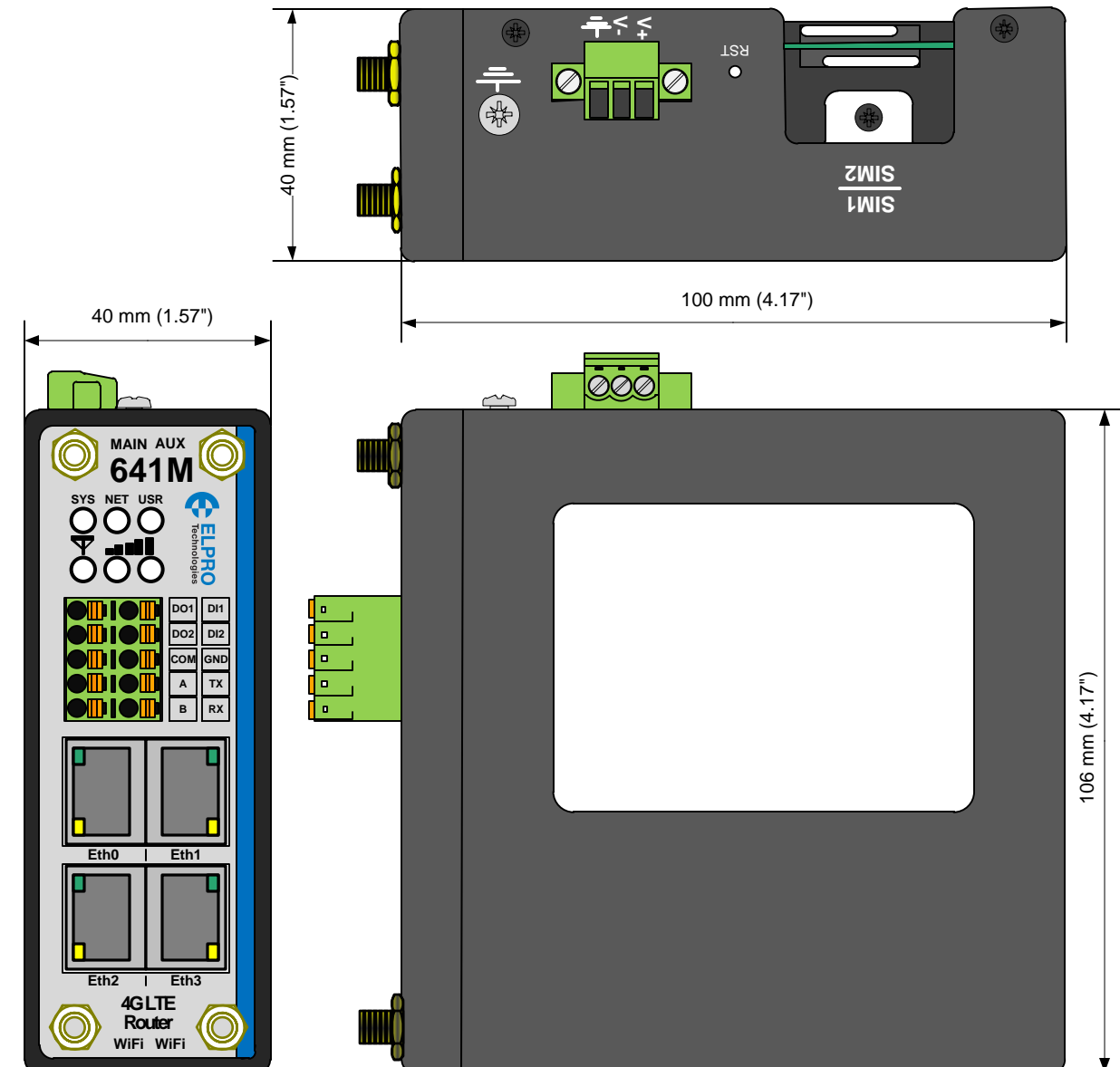

5. Upon first connection after a factory default (Out of the Box) the modem is configured to auto detect network APN. If successful, Active Link Information will be listed in modem home page. If not then navigate to Link Management-Cellular and select the Cellular tab and then click on the edit button on right side for SIM1. Turn off Auto APN and enter the APN details. Once change is done, click save and close. Then click on apply and router will connect to network. Recheck status after 1-2 minutes.
Its strongly recommended to change password from default.

6. When all Settings are configured navigate back to: Link Management > Cellular and the Connection should show as "Registered".

Dimensions

40 mm (1.57")
100 mm (4.17")
40 mm (1.57")
106 mm (4.17")

NOTES:

All I/O connections must be SELV

- 9-48Vdc Supply or internal battery charger input, 1A NEC Certified Class 2

Environmental Specification:

Ingress Protection	IP30
Operating Temp ext supply	-40 to 75°C (-40 to 167°F)
Altitude	3000m
Pollution Degree	4
Internal Humidity	Max 95% non-condensing

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