

5/1 Roebuck Street  
Hemmant, QLD 4174  
**Brisbane, Australia**

# Telco X1 Pro LTE Router

600Mbps LTE-A Pro Modem Router: Gigabit Ethernet & Dual band WiFi

## Product Overview

**Telco X1 Pro** is the ultimate in modem router performance. Designed to be uncompromisingly fast, unbelievably rugged, and shock tested for reliability you can count on, the Telco X1 Pro delivers **600Mbps MIMO CAT-12 LTE-A Pro connectivity**, gigabit ethernet, and dual band

**802.11ac Wave-2 WiFi** in a rugged, mountable package ready for indoor or enclosure installation.



### Maximum Performance

Shred through data packets with an extremely powerful **quad core**, hardware accelerated Qualcomm® IPQ4019 **ARM System-on-a-Chip (SoC)**.

### MIMO LTE Advanced Pro

### Multiple-In Multiple-Out (MIMO)

is the cornerstone of LTE-Advanced Pro and the X1 Pro gives you everything you need to max out your connection to the Category 12 LTE-Advanced Pro specification, starting with: **external antenna connectors**, global frequency band support, **band locking**, custom APN selection and **bridge mode**.

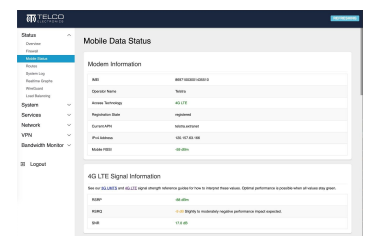
## Ideal Use Cases

- Establishing an **ultra fast** primary or backup Internet connection via 4G LTE
- Rural areas**, or **areas with poor signal quality** (our ultra-sensitive modem picks up weak signal best)
- Failover** between wired WAN and CAT-12 4G LTE-A Pro
- Small to medium **enterprise**
- Permanent, semi-permanent or temporary deployments
- Vehicle**, **marine** or **caravan** use
- Home/Office** installations that require high speed 4G internet
- Creating high data capacity **dual band WiFi hotspots**



## Top Features

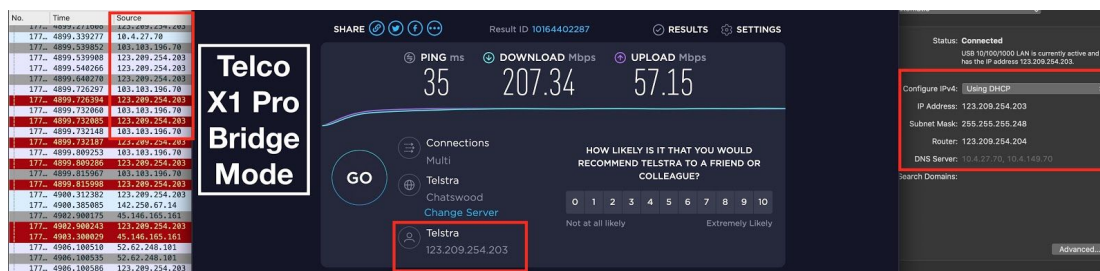
- Fully featured **MIMO LTE Router**
- User-Acclaimed TelcOS Melaleuca™ Firmware
  - Band Locking**
  - Bridge Mode**
- Powerful, dual band 2.4GHz and 5GHz WiFi
  - New **802.11ac Wave-2 WiFi**
- 600Mbps/150Mbps (DL/UL)** Cat-12 LTE-A Pro Modem
  - Global Frequency Support** - use it anywhere in the world
- Quad-core** ARM Cortex A7 processor (IPQ4019 SoC)
- Industrial rugged design**
  - External, tray style SIM card slot (nano SIM)
  - DIN Rail support**, 3m power cable, multiple mounting options
  - Modular mounting options for DIN rail and backboard mounting
- External Antenna Connectors** - SMA Female (LTE) and RP-SMA Female (WiFi)



## Technical Specifications

<p><b>Model</b></p> <ul style="list-style-type: none"> <li>Telco X1 Pro</li> <li>SKU: TEL-X1-PRO</li> </ul> <p><b>Modem Hardware</b></p> <ul style="list-style-type: none"> <li>CAT12 Quectel EM12-G</li> <li>Peak Download rate: <b>600Mbps</b></li> <li>Peak Upload Rate: <b>150Mbps</b></li> <li>1x Nano SIM Tray</li> </ul> <p><b>Ethernet Ports</b></p> <ul style="list-style-type: none"> <li>4x Gigabit LAN</li> <li>1x Gigabit WAN</li> </ul> <p><b>Wireless</b></p> <ul style="list-style-type: none"> <li>802.11ac Wave-2</li> <li>2.4GHz 802.11b/g/n</li> <li>5GHz 802.11ac</li> <li>1200Mbps</li> </ul> <p><b>Antennas</b></p> <ul style="list-style-type: none"> <li>2x <b>3dBi LTE antennas</b> (700-2700Mhz)</li> <li>2x <b>5dBi Dual Band WiFi antennas</b></li> <li>2x RP-SMA Female WiFi antenna connectors</li> <li>2x SMA Female Mobile antenna connectors</li> </ul>	<p><b>Firmware</b></p> <ul style="list-style-type: none"> <li>TelcOS Melaleuca™</li> <li><b>Band Locking</b></li> <li><b>Bridge Mode</b></li> <li>Telco Cloud Management System</li> <li>Telco Cloud Firmware Assurance</li> <li>LTE/WAN Failover &amp; failback</li> <li>Firewall</li> </ul> <p><b>Physical Dimensions</b></p> <ul style="list-style-type: none"> <li>Width: 155mm</li> <li>Depth: 110mm</li> <li>Height: (ex. antennas) 30mm</li> </ul> <p><b>Package Contents</b></p> <ul style="list-style-type: none"> <li>Telco X1 Pro - CAT-12 LTE-A Pro Wireless Modem Router</li> <li>2x LTE Antennas</li> <li>2x WiFi Antennas</li> <li>Power Supply with 3m cable</li> </ul> <p><b>Installation Options</b></p> <ul style="list-style-type: none"> <li>Set top box</li> <li>Attachable DIN rail mount</li> <li>Attachable back plate mount</li> </ul>	<p><b>Supported Frequency Bands (Aussie bands bold)</b></p> <ul style="list-style-type: none"> <li>4G LTE/LTE Advanced <ul style="list-style-type: none"> <li><b>B1</b>, B2, <b>B3</b>, B4, <b>B5</b>, <b>B7</b>, <b>B8</b>, B9, B12, B13, B14, B17, B18, B19, B20, B21, B25, B26, <b>B28</b>, B29, B30, B32, B38, B39, <b>B40</b>, B41, B66</li> </ul> </li> <li>3G <ul style="list-style-type: none"> <li>TD-SCDMA <ul style="list-style-type: none"> <li><b>B39</b></li> </ul> </li> <li>WCDMA <ul style="list-style-type: none"> <li>B1, B2, B3, B4, B5, B8, B9, B19</li> </ul> </li> </ul> </li> </ul> <p><b>Power</b></p> <ul style="list-style-type: none"> <li>DC Power: 12V@1.5A</li> <li>Consumption: 9.5W (max load)</li> <li>USB Output: 5V@1A</li> <li>12 to 18V input</li> </ul> <p><b>Compliance</b></p> <ul style="list-style-type: none"> <li>Australian RCM</li> </ul>
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## Gallery

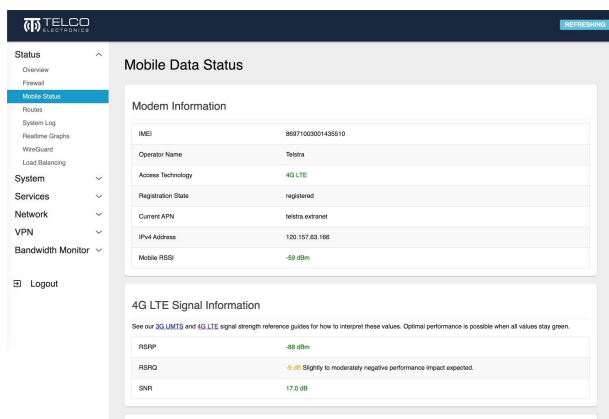


Bridge Mode



# TelcOS Melaleuca™

Responsive and feature rich embedded operating system to power your Telco devices, designed for ease of use, with stability and updated technology at the core. Compatible with Telco Cloud Management System.



**Mobile Data Status**

**Modem Information**

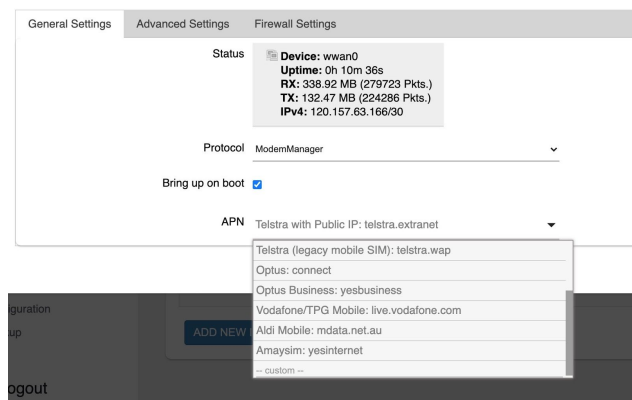
IMEI	88671003001438510
Operator Name	Telstra
Access Technology	4G LTE
Registration State	registered
Current APN	telstra.extranet
IPv4 Address	120.157.63.166
Mobile RSSI	-69 dBm

**4G LTE Signal Information**

See our 3G, UMTS and 4G LTE signal strength reference guides for how to interpret these values. Optimal performance is possible when all values stay green.

RSCP	-68 dBm
RSRQ	-1.0 dB Significantly to moderately negative performance impact expected.
SINR	17.0 dB

## Interfaces » MOBILEDATA



**General Settings** **Advanced Settings** **Firewall Settings**

**Status** **Device: wwan0**  
 Uptime: 0h 10m 36s  
 RX: 338.92 MB (279723 Pkts.)  
 TX: 132.47 MB (224286 Pkts.)  
 IPv4: 120.157.63.166/30

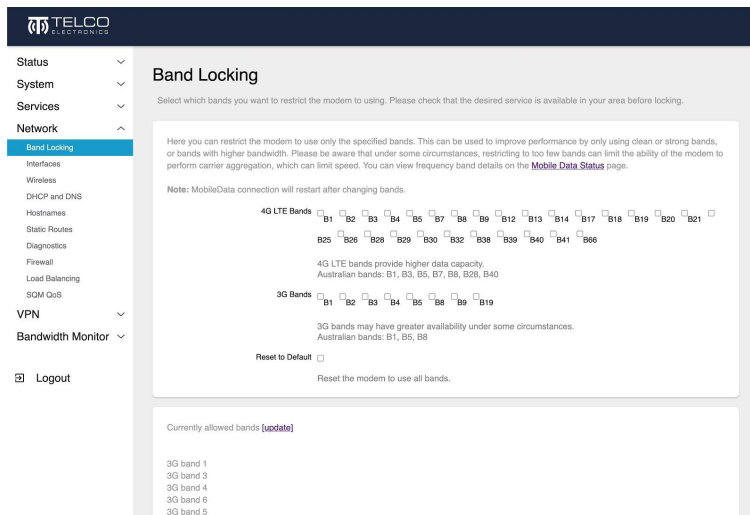
**Protocol** ModemManager

**Bring up on boot** ☒

**APN** Telstra with Public IP: telstra.extranet

Telstra (legacy mobile SIM): telstra.wap  
 Optus: connect  
 Optus Business: yesbusiness  
 Vodafone/TPG Mobile: live.vodafone.com  
 Aldi Mobile: mdata.net.au  
 Amaysim: yesinternet  
 -- custom --

**ADD NEW**



**Band Locking**

Select which bands you want to restrict the modem to using. Please check that the desired service is available in your area before locking.

Here you can restrict the modem to use only the specified bands. This can be used to improve performance by only using clean or strong bands, or bands with higher bandwidth. Please be aware that under some circumstances, restricting to too few bands can limit the ability of the modem to perform carrier aggregation, which can limit speed. You can view frequency band details on the [Mobile Data Status](#) page.

Note: MobileData connection will restart after changing bands.

**4G LTE Bands** ☐ B1 ☐ B2 ☐ B3 ☐ B4 ☐ B5 ☐ B7 ☐ B8 ☐ B12 ☐ B13 ☐ B14 ☐ B17 ☐ B18 ☐ B19 ☐ B20 ☐ B21 ☐ B25 ☐ B26 ☐ B28 ☐ B29 ☐ B30 ☐ B32 ☐ B38 ☐ B39 ☐ B40 ☐ B41 ☐ B66

4G LTE bands provide higher data capacity.  
 Australian bands: B1, B3, B5, B7, B8, B28, B40

**3G Bands** ☐ B1 ☐ B2 ☐ B3 ☐ B4 ☐ B5 ☐ B8 ☐ B9 ☐ B19

3G bands may have greater availability under some circumstances.  
 Australian bands: B1, B5, B8

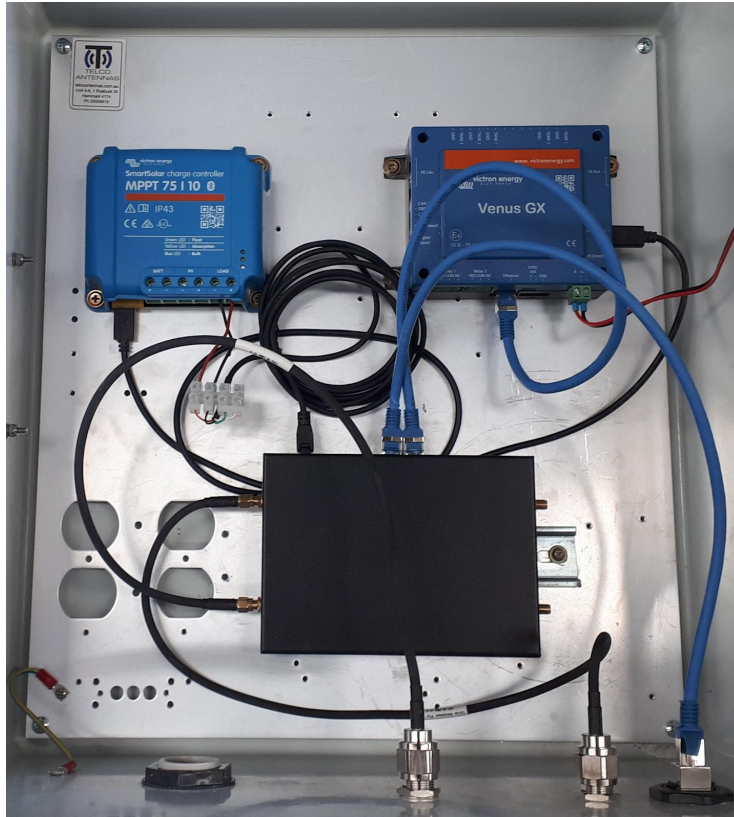
**Reset to Default** ☐  
 Reset the modem to use all bands.

Currently allowed bands [\[update\]](#)

3G band 1  
 3G band 3  
 3G band 4  
 3G band 6  
 3G band 5

## Example Application - Remote Monitoring of Solar Power System

The **Telco X1 Pro** integrates perfectly into a box by mounting either to a **DIN rail**, or directly to the backplate with **attachable brackets**. In this configuration the X1 Pro is ready to provide



**high speed data** access in **remote or low signal areas**, powered via a solar panel. There is plenty of room to maneuver the X1 Pro to fit additional equipment. Optionally, a **long range WiFi hotspot** can be created by connecting the WiFi antennas on the right hand side to suitable external antennas; or a **localised hotspot for administration** of the box can be created by attaching the included WiFi antennas inside the box, as the box is made of plastic.

