

# 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**.

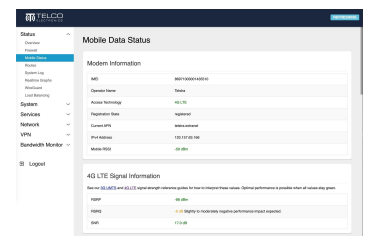
## Ideal Use Cases

- 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

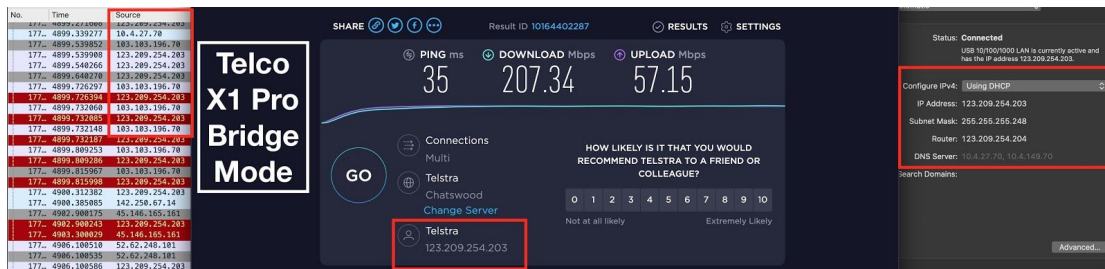
- Fully featured **MIMO LTE Router**
- User-Acclaimed TelcOS Melaleuca™ Firmware
  - **Band Locking**
  - **Bridge Mode**
- Powerful, dual band 2.4GHz and 5GHz WiFi
  - New 802.11ac **Wave-2 WiFi**
- **600Mbps/150Mbps (DL/UL) Cat-12 LTE-A Pro Modem**
  - **Global Frequency Support** - use it anywhere 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

The screenshot shows the Telco X1 Pro Bridge Mode interface. On the left, a table displays network statistics. The main area shows network performance metrics and a list of connections. On the right, the network configuration is displayed.

No.	Time	Source
177.	4899.339277	184.27.78
177.	4899.539852	183.183.196.70
177.	4899.539960	123.209.254.203
177.	4899.548266	123.209.254.203
177.	4899.648276	123.209.254.203
177.	4899.729277	183.183.196.70
177.	4899.726394	123.209.254.203
177.	4899.722868	183.183.196.70
177.	4899.732148	123.209.254.203
177.	4899.732148	183.183.196.70
177.	4899.809253	183.183.196.70
177.	4899.809286	123.209.254.203
177.	4899.815576	183.183.196.70
177.	4899.815598	123.209.254.203
177.	4900.312382	123.209.254.203
177.	4900.305985	142.250.67.14
177.	4902.908175	45.146.165.161
177.	4902.908243	123.209.254.203
177.	4903.908029	45.146.165.161
177.	4906.108518	52.62.248.181
177.	4906.108535	52.62.248.181
177.	4906.108568	123.209.254.203

Network Performance Metrics:

- PING ms: 35
- DOWNLOAD Mbps: 207.34
- UPLOAD Mbps: 57.15

Connections:

- Multi
- Telstra
- Chatswood Change Server
- Telstra 123.209.254.203

Network Configuration:

- Status: Connected
- USB 10/100/1000 LAN is currently active and has the IP address 123.209.254.203.
- Configure IPv4: Using DHCP
- IP Address: 123.209.254.203
- Subnet Mask: 255.255.255.248
- Router: 123.209.254.204
- DNS Server: 10.4.27.70, 10.4.1.68.70

Bridge Mode



# TelcoOS 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.

The screenshot shows the 'Mobile Data Status' page in the TelcoOS interface. It features a sidebar with navigation options like Status, System, Services, Network, VPN, and Bandwidth Monitor. The main content area is divided into two sections: 'Modem Information' and '4G LTE Signal Information'. The Modem Information section displays fields for IMEI (86971003001430510), Operator Name (Telstra), Access Technology (4G LTE), Registration State (registered), Current APN (telstra.extranet), IPv4 Address (120.157.63.168), and Mobile RSSI (-59 dBm). The 4G LTE Signal Information section provides a reference guide for signal strength values, showing RSSRP at -68 dBm, RSSRQ at -10 dB (slightly to moderately negative performance impact expected), and SNR at 17.0 dB.

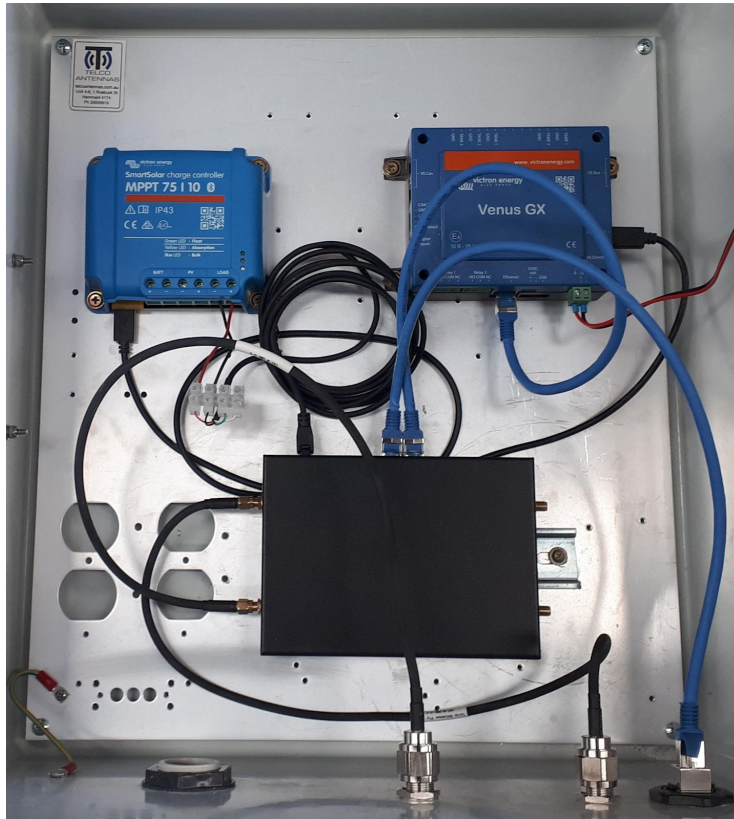
## Interfaces » MOBILEDATA

The screenshot shows the 'MOBILEDATA' settings page, specifically the 'Advanced Settings' tab. It includes sections for 'General Settings', 'Advanced Settings', and 'Firewall Settings'. The 'Status' section shows 'Device: wwan0', 'Uptime: 0h 10m 36s', 'RX: 338.92 MB (279723 Pkts.)', 'TX: 132.47 MB (224286 Pkts.)', and 'IPV4: 120.157.63.166/30'. The 'Protocol' is set to 'ModemManager'. The 'Bring up on boot' option is checked. The 'APN' is set to 'Telstra with Public IP: telstra.extranet'. A dropdown menu is open, showing a list of APNs: Telstra (legacy mobile SIM): telstra.wap, Optus: connect, Optus Business: yesbusiness, Vodafone/TPG Mobile: live.vodafone.com, Aldi Mobile: mdata.net.au, Amaysim: yesinternet, and a custom option.

The screenshot shows the 'Band Locking' page in the TelcoOS interface. It includes a sidebar with navigation options like Status, System, Services, Network, and Bandwidth Monitor. The main content area is titled 'Band Locking' and contains instructions on how to restrict the modem to use only specified bands. It includes a note that the MobileData connection will restart after changing bands. There are two sections for selecting bands: '4G LTE Bands' (B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B17, B18, B19, B20, B21, B25, B26, B28, B29, B30, B32, B38, B39, B40, B41, B66) and '3G Bands' (B1, B2, B3, B4, B5, B8, B9, B19). A 'Reset to Default' checkbox is also present. The 'Currently allowed bands' section shows a list of selected bands: 3G band 1, 3G band 3, 3G band 4, 3G band 6, and 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.

