

Pre-release

## Telco Antennas

Unit 5/1 Roebuck St  
Hemmant QLD, 4174  
07 3393 9919

[telcoantennas.com.au](http://telcoantennas.com.au) / [telcoelectronics.com.au](http://telcoelectronics.com.au)

# Telco Electronics T1

Rugged Indoor/Outdoor LTE-A Wireless Router



## Product Overview

Telco Electronics T1 is a highly advanced, ruggedised LTE-A wireless router for deployment into harsh environments. A refined new operating system, TelcOS™ Melaleuca, delivers reliability and ease of setup - along with the latest in security and VPN technology. Powered by PoE, you can eliminate electrical considerations to bring new installation possibilities within reach. External antenna connectors and a versatile mounting system allow the T1 to be customised for any scenario.

### 4GX anywhere, rain or shine

- Provides full 4G/4GX/4G+ (LTE Advanced) internet service over Wifi and LAN
- Weather-resistant pole-mountable package (IP66 rated)
- Uses LTE Advanced technology to achieve speeds of up to 300Mbps/50Mbps (download/upload)

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- Covers Telstra 4GX, Optus 4G+, Vodafone 4G networks with 3G fallback
- PoE powered (adaptor included)
- Onboard SIM slot

### **Uninterrupted connection**

- Set the WAN port or mobile data as load balancing or internet failover (WAN is failover by default)

### **Wifi on your terms**

- Long range, secure Wifi
- Up to 100m radius Wifi coverage area (clear line of sight)
  - Up to 100m unobstructed, up to 30m indoors
- Services up to 100 clients simultaneously

## **Usage**

### **Dares to go where others can't**

- Self-contained unit for use where an outdoor IP66 weather rating is required
- Provides full 4G internet service on its own, or can integrate into an existing network
- Ideal for outdoor digital signs, emergency services, mining and construction, and outdoor events
- Perfect for small office or home office applications
- Permanent, semi-permanent, or temporary installations
- Mounts in a variety of applications and is ideal for pole mounting
- In areas with poor signal, the T1 works better and is much more reliable than Cat4 modems

# TelcOS™ Melaleuca

**Designed and developed by Telco Antennas in Brisbane, Australia.**

**Made with trusted, industry standard technology.**

- Powerful, yet easy and secure embedded OS designed and developed by Telco Antennas
- Direct support for Australian mobile networks
- Reliable Wi-Fi with options including: guest networks, scheduling, client isolation
- Secure firewall
- Download backups, or clone a configuration to multiple T1's with a single file
- Latest security patches applied
- Incorporates KRACK Wi-Fi vulnerability countermeasures
- Mobile browser support
- Dark theme + Light theme
- DHCP server including address reservations
- Wake on Lan (WoL) - wake up other computers attached to the T1 remotely
- Ping reboot - reboot if a host is unavailable for too long
- Remote logging - send logs to a logging server
- Built with a rock-solid Linux® core based on the latest stable *OpenWrt*® \*
- Includes the latest in VPN technology: WireGuard®

\* Telco Antennas is not affiliated with OpenWrt. OpenWrt is a registered trademark of Software In the Public Interest.

## Specifications / Frequency

### Electrical

- PoE powered - guaranteed 50m range over Cat6 cable
- IEEE 802.11/b/g/n
- External antenna connectors
  - Mobile: SMA Female
  - Wifi: RP-SMA Female
- 2.4GHz WiFi
  - up to 300Mbps capacity
  - up 100m radius outdoor coverage area 30m indoor
  - Recommended for up to 100 clients
- Two ports - 1 x LAN - 1 x WAN
  - WAN Port
    - Can be changed to extra LAN
  - LAN Port
    - Can share 4G with a multi-port switch or a single computer
- Full SOHO (small office/home office) router capabilities
  - Can be used as a standalone device, or provide 4G to an existing network setup:
    - DHCP
    - Firewall
    - VPN - server and client
- Cat-6 LTE modem
  - Peak Download Rate: 300Mbps
  - Peak Upload Rate: 50Mbps
- Quality Assured: ISO 9001

### Supported Frequency Bands

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- 4G LTE/LTE-Advanced
  - B1, B3, B5, B7, B8, B18, B19, B21, B28, B38, B39, B40, B41
- 3G
  - TD-SCDMA
    - B39
  - WCDMA
    - B1, B5, B6, B8, B9, B19

## Wi-Fi

- IEEE 802.11b/g/n up to 300Mbps
- 20MHz/40MHz channel width
- Up to 398 mW transmit power
- Modes
  - Access Point
  - Client
  - Ad-hoc
  - IEEE 802.11s Mesh
  - Monitor
- WDS - Wireless Distribution System
- Encryption
  - WPA2-PSK
  - WPA2-EAP
  - WPA-PSK/WPA2-PSK Mixed mode
  - WPA-PSK
  - WEP Shared Key
  - WEP Open System
  - No encryption
- MAC Address Filter
- Guest SSIDs

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- Up to 4 SSIDs
- Isolate Clients - prevents client-to-client communication
- Hide SSID

## Physical

- Height: 163mm
  - With antenna: add 190mm to height
- Width: 85mm
- Depth: 35mm
- Weight: 200g
- Operating temperature: -40° to +80° C
- Pole-mountable installation - stainless straps included
- Screw-mountable installation - stainless countersunk screws included
- IP66 - self-contained and weather-resistant for indoor or outdoor use
- Various mounting options - including screw, and pole mounts, i.e. [Aluminium Fascia J pole](#) - *stainless mounting straps and screws are included*
- Small form factor for versatile installation

## Mounting hardware options

These are some of the best mounting options to consider when sizing up the location for the T1 - remembering that this versatile device can be mounted using a variety of options - your imagination is your only limitation!

- [Light Galvanised Tile Roof Mount 25mm - 1.2m](#)
- [Weatherproof Enclosure Universal Pole Mounting Kit](#)
- [Heavy Duty Galvanised Fascia J Pole - 1.2m](#) (also available in [1.4](#) and [1.8 metres](#))
- [Aluminium 32 O/D X 3mm Pole](#)

## Power Adaptor

- Australian plug
- Passive PoE
- 1x PoE port
- 1x network port (works with LAN or WAN port on T1)
- Input: 100~240V 50/60Hz 0.5A
- Output: 24V/0.5A
- Guaranteed 50m range over Cat-6 cable
- Ethernet pins: (4,5)+, (7,8)-

## Package contents

- Outdoor 4G LTE-Advanced Wireless Router (Telco Electronics T1)
- Power adaptor (Australian plug PoE adaptor)
- 2x antenna - 1x LTE and 1x WiFi
- 2x stainless straps
- 2x stainless screws (1/4 inch length)
- Ethernet cable
- Quick start guide

# Gallary









End of data sheet