

Touchstone® TG6452 Cable Voice Gateway

DOCSIS® 3.1 Gateway with 802.11ax Wi-Fi

FEATURES

- 2x2 OFDM and OFDMA DOCSIS® 3.1 channels
- 32x8 SCQAM DOCSIS® 3.0 channels
- Dual Band Concurrent 4x4:4 2.4GHz and 5GHz 802.11ax radios
- 1 NBase-T 2.5Gbps Ethernet port
- 2 port Gigabit Ethernet Router
- Switchable upstream filters for 85MHz or 204MHz operation.
- Full Capture Bandwidth Tuner
- MoCA® 2.0 (with channel bonding) for in Home Video and Data distribution over Coax
- Multiple SSID support with DFS channels and Dynamic Channel change
- Multiple operator controlled configuration options



PRODUCT OVERVIEW

The TG6452 Telephony Wireless Gateway delivers the gigabit broadband performance of DOCSIS 3.1. This feature-packed unit is intended to serve as the hub of the subscriber's home or business network, connecting all IP capable devices (Internet, Data, Voice and Video) throughout the customer's premises.

The TG6452, with its 4x4 802.11ax Dual Band wireless radios, offers superior Wi-Fi performance in dense environments, with high data rates for video over Wi-Fi at increased range. Built-in advanced features to manage the power of Wi-Fi clients offers longer time on battery operation.

The TG6452 is integrated with Plume. When used with additional Wi-Fi Extenders, the solution delivers high-performance Wi-Fi to every corner of the home, while offering ease of use for the consumer and reduced OPEX costs for the service provider. The TG6452 gateway can provide automated network optimization, interworking with the self-configuring extenders, the HomeAssure consumer App and the HomeAssure Cloud management platform for remote management, analytics and diagnostics.



The switchable US diplex filter is designed to produce superior RF performance and ease of deployment on a DOCSIS 3.1 network. Optimized DRAM, Flash and Multiple embedded processor cores are designed to allow new applications to be deployed on the gateway.

The TG6452 is designed to minimize support costs with multiple provisioning and remote management methods (SNMP, Configuration File, Remote WebGUI access, TFTP, and TR-069/181). Multiple remote access levels (User, Technician and MSO) also allow more ease and flexibility for manual configuration and control.

SPECIFICATIONS

Physical

Operating Temperature	0 to 40°C
Operating Relative Humidity	5-85% (Non condensing)
Storage Temperature	-40 to 70°C
Dimensions (H x W x D)	10.9in x 7.84in x 2.55in 277mm (H) x 199.5mm (D) x 65mm (W)
Backup Capacity (not supplied)	External BBU
Weight	2.6lbs 1.2kg
Diagnostic LEDs (Top)	Subsystem based front panel LED for status of Power, US/DS, Online, 2.4GHz, 5GHz, Tel, Battery

SPECIFICATIONS

Interfaces

RF Interface	1 External 'F' type connector
Date Interfaces (bridged)	1 x 2500 NBase-T 2 x 10/100/1000 Base-T Ethernet (RJ-45 connector)
Analog Telephony Interface	2 lines; RJ-11
MoCA	MoCA 2.0
Input Voltage (nominal)	12V DC
AC-DC	External



SPECIFICATIONS

RF Downstream

Bonded Channels Up to 32 SCQAM or 2 OFDM

Tuner Configuration Full capture tuning range

Frequency Range (MHz) 108MHz - 1002MHz DOCSIS

Data Rate (Mbps Max.) Up to 5Gbps

RF Input Sensitivity Level -15 dBmV to +15 dBmV (DOCSIS)

RF Upstream

Bonded Channels Up to 8 SCQAM or 2 OFDMA

Frequency Range 5MHz to 85MHz

Configurable Diplex Filter 85MHz-204MHz

Data Rate Up to 1Gbps

RF Output Level
 +65 dBmV (OFDMA)
 +54 dBmV (64 QAM, 4-8 upstreams)
 +57 dBmV (64 QAM, single upstream)
 +58 dBmV (16 QAM, single upstream)

SPECIFICATIONS

Wireless

Frequency Range 2.4GHz and 5GHz

Transmit Power (EIRP)
 +34 dBm (2.4GHz, MCS0, HT20)
 +29 dBm (2.4GHz, MCS7, HT20)
 +34 dBm (5GHz, MCS0, HT20)
 +30 dBm (5GHz, MCS9, VHT80)

Spatial Streams 4 for 2.4GHz, 4 for 5GHz

Receive Levels
 2.4GHz <-88dBm 802.11n (MCS0),
 <-71dBm 802.11n (MCS7), HT20
 5.0GHz <-89dBm 802.11ac (MCS0) ,
 <-60dBm 802.11ac (MCS9), VHT80

Antennas 8 transmit, and 8 receive (total)

MoCA

Frequency Range 1150MHz –1500MHz

Network Channel Bandwidth 50MHz

Max Transmit Power + 9 dBm max (adjustable)

Max PhyRate 1400 Mbps

Application Data Rate 800 Mbps bidirectional combined

