

Touchstone[®] TG3452 Cable Voice Gateway

DOCSIS[®] 3.1 Gateway with 802.11ac Wi-Fi & MoCA[®]2.0

FEATURES

- 2x2 OFDM and OFDMA DOCSIS[®] 3.1 channels
- 32x8 SCQAM DOCSIS[®] 3.0 channels
- Full Capture Bandwidth Tuner
- Multi Processor Technology with ARM and ATOM based Application Processor
- 4 port Gigabit Ethernet Router
- Switchable upstream filters for 42MHz or 85MHz operation.
- 4x4 Integrated Dual Band Concurrent 5GHz 802.11ac Wave2 radios and 3x3 2.4GHz 802.11n for high performance WLAN
- 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
- Single PCB design
- Multiple operator controlled configuration options
- Designed for enhanced application support



PRODUCT OVERVIEW

The TG3452 Telephony Wireless Gateway supporting DOCSIS 3.1 allows unprecedented data rates to be delivered to MSO customers. The TG3452, along with its 4x4 802.11ac Dual Band Wireless radios, offers superior Wi-Fi performance enabling video over Wi-Fi.

The MoCA 2.0 interface with channel bonding enables the creation of a high performance home network. The switchable US duplex filter is designed to produce superior RF performance and ease of deployment on a DOCSIS 3.1 network.

Increased DRAM, Flash and Multiple embedded processor cores are designed to allow new applications to be deployed on the gateway. This feature-packed unit is intended to serve as the hub of the subscribers network, connecting all IP capable devices (Internet, Data, Voice and Video) throughout the customers premises.

Residential gateway support has always been a concern of the operator. The TG3452 distinguishes itself with capabilities to minimize these support needs. Multiple provisioning methods (SNMP, Configuration File, Remote WebGUI access, TFTP, and TR-069/181) allow custom designed setups to be applied to monitor the end user more efficiently. Multiple remote access levels (User, Cusadmin, and MSO) also allow more ease and flexibility for manual configuration and control.

The TG3452 will help lead the future to advanced home and small business services.

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)	11.1in x 2.95in x 8.07in 282mm x 75mm x 205mm
Backup Capacity (not supplied)	External BBU
Weight	2.1lbs 0.95kg
Diagnostic LED's (Top)	Integrated LED for status of Power, US/DS, Online, 2.4GHz, 5GHz, Tel1, Tel2, Battery, MoCA
Diagnostic LED's (Rear)	MoCA, Ethernet Link/Speed

SPECIFICATIONS

Interfaces

RF Interface	1 External 'F' type connector
Date Interfaces (bridged)	4 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 -15dBmV to +15dBmV (DOCSIS)

RF Upstream

Bonded Channels Up to 8 SCQAM or 2 OFDMA

Frequency Range 5MHz to 85MHz

Configurable Diplex Filter 42MHz-85MHz

Data Rate (Mbps Max.) Up to 1Gbps

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

SPECIFICATIONS

Wireless

Frequency Range 2.4GHz and 5GHz

Transmit Power (from any antenna) +29dBm (MCS7, 2.4GHz)
+28 dBm (MCS7, 5GHz, HT20)
+26 dBm (MCS9, 5GHz, VHT40)

Spatial Streams 3 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 7 transmit, and 7 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

CUSTOMER CARE

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