

# Touchstone<sup>®</sup> TM3402 Telephony Modem

DOCSIS<sup>®</sup> 3.1 Modem with 2 voice ports

## FEATURES

- 2x2 OFDM/OFDMA DOCSIS<sup>®</sup> 3.1 channels
- 32x8 SCQAM DOCSIS<sup>®</sup> 3.0 channels
- Full Capture Bandwidth Tuner
- Switchable US filter options include: 5-42MHz or 5-85MHz
- DS frequency range: 108-1002MHz
- Multi-processor Technology (ARM and ATOM based Application Processor)
- 4 Port Gigabit Ethernet LAN and 2 RJ-11 VoIP ports
- Link Aggregation for up to 2 LAN ports
- Support for NCS, Legacy SIP, and PacketCable™ 2.0/1.5/1.0 signaling
- Multiple L2VPN BSoD support with OAM extensions
- PNM based network monitoring and diagnostics
- DS / US spectrum analyzer functionality

## PRODUCT OVERVIEW

The TM3402 DOCSIS 3.1 enables multi-gigabit data rates to be delivered to cable customers for all IP-capable services (Internet, Data, Voice and Video), with two lines of VoIP service based on PacketCable™ specifications. A switchable US filter provides for superior RF performance, reducing the potential for interference in the home network, and allows the flexibility required for MSO transitions from DOCSIS 3.0 to DOCSIS 3.1. Multi-process and large memory capacity allows new applications to be deployed on the modem.

The TM3402 lowers OPEX costs by enabling proactive network management with remote monitoring and diagnostics, including US and DS spectrum analysis. OAM extensions to L2VPN allow for system-level provisioning and diagnostics. Multiple provisioning methods (SNMP, Configuration File, WebGUI access) allow custom-designed setup to be applied to monitor the end user more efficiently. Multiple remote access levels also ease 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)	7.6in x 2.1in x 6.2in
Weight	1.1 lbs
Diagnostic LED's (Front)	Power, DS/US, Online, Tel1, Tel2, Battery
Diagnostic LED's (Rear)	Ethernet Link/Speed
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	2x VoIP RJ-11
Input Voltage (nominal)	12VDC, 2.5A (adapter) 100-240V, 50/60Hz, 0.8A
Voice	
Standards Supported	PC2.0/1.5/1.0, RFC-3261
Codecs Support	G.711, G.722, G.729
Fax	T.38
REN Capability	5 REN / Line, 10 REN Total
Line Card Support	Flexible LC Templates

## SPECIFICATIONS - CONTINUED

RF Downstream	
Bonded Channels	Up to 32 SCQAM and/or 2 OFDM
Tuner Configuration	Full capture tuning range
Frequency Range	108 – 1002 (DOCSIS)
Data Rate	5Gbps (Max)
RF Input Sensitivity Level	-15dBmV to +15dBmV (DOCSIS)
RF Upstream	
Bonded Channels	Up to 8 SCQAM and/or 2 OFDMA
Frequency Range	5MHz to 85MHz (DOCSIS)
Configurable Diplex Filter	42MHz or 85MHz options
Data Rate	> 1Gbps (Max)
RF Output Level	+65 dBmV (64QAM, single US) +57 dBmV (64QAM, 4-8 US) +65 dBmV (16QAM, single US) +65 dBmV (OFDMA)

## ORDERING INFORMATION

Model	Description
1000358	TM3402A/NA; D3.1 eMTA, 42/85MHz US, 108-1002MHz DS, 2x RJ-11, 4x GigE, Supports External LPSU, AC/DC Adapter (100-240VAC, 50/60Hz, NEMA1-15, DoE6), No USB, RoHS

## CUSTOMER CARE

Contact Customer Care for product information and sales:

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