



## Touchstone® 8x4 DOCSIS®/EuroDOCSIS™ 3.0 Telephony Modem, TM902

### Specifications

#### Physical

Operating Temperature °F (°C)	32 to 104 (0 to 40)
Operating Relative Humidity (Min-Max)	5-95% (Non condensing)
Storage Temperature °F (°C)	-40 to 158 (-40 to 70)
Dimensions (H x W x D) in. (cm)	6.5 x 2.0 x 5.5 (16.5 x 5.0 x 14.0) - excluding F-connector
Weight lbs (kg)	1.2 (0.54)
Diagnostic LEDs	Power, DS, US, Online, Link, Tel 1, Tel 2

#### Interfaces

RF Interface	External 'F' type connector
Data Interface	10/100/1000 Base-T Ethernet, RJ-45
Telephony Interface	2 lines; RJ-11 ("Line 1", "Line 2")
Input Voltage (nominal)	100-240 VAC 50/60 Hz (A models) 220-240 VAC 50 Hz (B and S models)
Power On/Off Switch	TM902S models only
Power Consumption (W)	7.5 (idle), 16 (Max.)

#### Telephony

Supervisory Voltage	48 V DC nominal
Maximum Loop Length to CPE	1000 ft (305M) of 26 AWG (0.4 mm) wire
Ringing Load Capacity	10 REN total; 5 per line
Provisionable High Loop Current Mode	Yes
Telcordia™ GR 1089 (Lightning and Power Surge) Tested	Yes
Programmable Interface for Worldwide Applications	Yes

#### RF Downstream

Frequency Range (MHz)	108-1002
Bonded Channels	up to 8
Capture Bandwidth (MHz)	96
Carrier Bandwidth (MHz)	6 (DOCSIS) or 8 (EuroDOCSIS)
Modulation (QAM)	64 or 256
Data Rate (Mbps, Theoretical)	up to 440 <i>Note: Maximum EuroDOCSIS rate; actual data throughput is less due to overhead</i>
RF Input Sensitivity Level (dBmV)	-15 to +15 (DOCSIS) or -17 to +17 (EuroDOCSIS)

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## Specifications Continued

### RF Upstream

Frequency Range (MHz)	5 – 42 (DOCSIS) or 5-65 (EuroDOCSIS)
Bonded Channels	up to 4
Modulation	QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM & 128 QAM (S-CDMA only)
Data Rate (Mbps, Theoretical)	up to 131 <i>Note: Maximum DOCSIS rate; actual data throughput is less due to overhead</i>
RF Output Level (dBmV – one channel)	
A-TDMA	+17 to 57 dBmV (32 QAM, 64 QAM); +17 to 58 dBmV (8 QAM, 16 QAM); +17 to 61 dBmV (QPSK) <i>Note: A-TDMA max output power reduced 3dB when transmitting two channels and 6dB when transmitting 3 or 4 channels.</i>
S-CDMA	+17 to +56 dBmV (all modulations) <i>Note: S-CDMA max output reduced 3dB when transmitting 2 or more channels.</i>
Automatic Level Adjust	Yes
Frequency Stability (kHz)	±5
Output Impedance (Ohms)	75

### Standards

DOCSIS/EuroDOCSIS 3.0	IEEE 802.3, IEEE 802.3ab
PacketCable/EuroPacketCable 1.0 and 1.5	RFC3261 SIP: Session Initiation Protocol
UL® 60950	Codec: G.711, 64 kbps, $\mu$ -law and A-law encoded speech
FCC Part 15 Class B	T.38 Fax Relay
CE, CB	
RoHS, WEEE	

## Ordering Information

Part Number	Description
789695	Touchstone TM902A/NA DOCSIS 3.0 / PacketCable 1.5 complaint 8x4 E-MTA with integrated 100-240 VAC, 50/60 HZ power supply with 6 foot NEMA 1-15 power cord. Includes Quick Install Guide and Ethernet Cable
789696	Touchstone TM902A/CE DOCSIS 3.0 / PacketCable 1.5 complaint 8x4 E-MTA with integrated 100-240 VAC, 50/60 Hz power supply with 6 foot CEE 7/16 Euro power cord. Includes Quick Install Guide and Ethernet Cable
789697	Touchstone TM902B/CE Dual Mode EuroDOCSIS/DOCSIS 3.0 and EuroPacketCable 1.5 complaint 8x4 E-MTA with integrated 220-240 VAC, 50 Hz power supply with 6 foot CEE 7/16 Euro power cord, Includes Quick Install Guide and Ethernet Cable
790421	Touchstone TM902S/CE Dual Mode EuroDOCSIS/DOCSIS 3.0 and EuroPacketCable 1.5 complaint 8x4 E-MTA with integrated 220-240 VAC, 50 Hz power supply with 6 foot CEE 7/16 Euro power cord, Includes Quick Install Guide and Ethernet Cable; Equipped with ON/OFF power switch
794012	Touchstone TM902S/CE-TAE Dual Mode EuroDOCSIS/DOCSIS 3.0 and EuroPacketCable 1.5 complaint 8x4 E-MTA with integrated 220-240 VAC, 50 Hz power supply with 6 foot CEE 7/16 Euro power cord, Includes Quick Install Guide, Ethernet Cable, and two (2) TAE adapters; Equipped with ON/OFF power switch

Specifications are subject to change without notice.

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