

Touchstone® DOCSIS® 3.0 8x4 Telephony Modem TM822A/S

Specifications

Physical

Operating Temperature °F (°C) 32 to 122 (0 to 50)
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) 7.3 x 1.7 x 6.2 (18.5 x 4.3 x 15.8) - excluding F-connector

Weight lbs (kg) 1.0 (0.45

Diagnostic LEDs Power, DS, US, Online, Link, Tel 1, Tel 2

Interfaces

RF Interface External 75 ohm 'F' type connector
Data Interface 10/100/1000 Base-T Ethernet RJ-45

Telephony Interface 2 lines; RJ-11

Input Voltage (nominal) 115-240 VAC 50/60 Hz
Power Switch Equipped On TM822S model only

Power Consumption (W) 5.5 (idle)

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 (edge-to-edge)

Bonded Channels up to 8 Number of Tuners 2

Capture Bandwidth (MHz) 96 (per tuner, 192 MHz total)

Modulation (QAM) 64 or 256
Data Rate (Mbps, Theoretical) up to 343

Note: Maximum raw DOCSIS rate; actual data throughput is less

due to overhead, configuration, and RF conditions

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

Carrier Bandwidth 6 MHz (DOCSIS mode) or 8 MHz (EuroDOCSIS mode)

Embedded MoCA® Immunity Filter

Touchstone® DOCSIS® 3.0 8x4 Telephony Modem, TM822G Technical Specification

Specifications Continued

RF Upstream

Frequency Range (MHz) 5-42 (DOCSIS mode) or 5-65 (EuroDOCSIS mode)

Bonded Channels up to 4

Modulation QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM (S-CDMA only)

Modulation Bandwidth (kHz) 200, 400, 800, 1600, 3200, 6400 (TDMA)

1600, 3200, 6400 (S-CDMA)

Data Rate (Mbps, Theoretical) up to 122

Note: Maximum raw DOCSIS rate; actual data throughput is less due to overhead,

configuration, and RF conditions

RF Output Level (dBmV - one channel)

TDMA: +17 to 61 (QPSK); +17 to 58 (8QAM, 16QAM); +17 to 57 (32QAM, 64QAM)

Note: A-TDMA max output power reduced 3dB when transmitting 2 channels and

6dB when transmitting 3 or 4 channels.

S-CDMA: +17 to +56 (all modulations)

Note: S-CDMA max output reduced 3dB when transmitting 2 or more channels.

Automatic Level Adjust Yes
Frequency Stability (kHz) ±5
Output Impedance (Ohms) 75

Standards

DOCSIS 3.0 / EuroDOCSIS 3.0 RoHS, WEEE

PacketCable 1.0 and 1.5 IEEE 802.3, IEEE 802.3ab

UL® 60950 RFC3261 SIP: Session Initiation Protocol

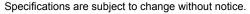
FCC Part 15 Class B Codec: G.711, 64 kbps, μ -law and A-law encoded speech

CE Enhanced codec support (G.726, G.728, G.729E)

CB T.38 Fax Relay

Ordering Information

Part Number	Description
799090	Touchstone TM822A/NA, DOCSIS 3.0 / PacketCable 1.5 compliant E-MTA with integrated 115-240 VAC, 50/60 HZ power supply. Includes NEMA 1-15 power cord, Cat-5E Ethernet cable, and End User License.
799091	Touchstone TM822A/CE, DOCSIS 3.0 / PacketCable 1.5 compliant E-MTA with integrated 115-240 VAC, 50/60 HZ power supply. Includes CEE 7/16 power cord, Cat-5E Ethernet cable, and End User License.
799092	Touchstone TM822S/CE, Dual Mode (DOCSIS 3.0 & EuroDOCSIS 3.0) / PacketCable 1.5 compliant E-MTA with integrated 115-240 VAC, 50/60 HZ power supply. Includes CEE 7/16 power cord, Cat-5E Ethernet cable, and End User License.



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