Touchstone® TM602B

Telephony Modem

Configuration/Benefits

- EuroDOCSIS® 2.0 and EuroPacketCable 1.0/1.5 compliant design (B/DM variant also capable of DOCSIS® 2.0 and PacketCable™ 1.0/1.5 support)

- High Speed Internet via 10/100 Base-T Ethernet (RJ-45) or USB 1.1 port

- Up to two lines of carrier-grade VoIP

- Firmware compatibility with legacy Touchstone Telephony Modem TM402 and TM502 products – one load for new and legacy ARRIS Telephony Modems

- Simplified interoperability through PacketACE™ configuration file editor

- Multiple Protocol Support: PacketCable (NCS) and Session Initiation Protocol (SIP)

Applications

With millions of Touchstone Telephony Modem TM502's shipped, ARRIS is pleased to release the new TM602 as the next generation residential product family. Like the industry leading TM502 product family, the TM602 delivers two lines of carrier-grade Voice over IP (VoIP) along with High-Speed Data access. The TM602 family offers the same product variants previously supported with the TM502 family and a new "dualmode" capable TM602 product variant.

Performance

- Loop Diagnostics for remote testing and troubleshooting of in-house wiring

- Dual-mode capability for maximum flexibility in DOCSIS + EuroDOCSIS networks (using an 8 MHz channel with either a 6 or 8 MHz carrier, depending on the network type)

- 1GHz Tuner – future proof toward future plant upgrades

- Integrated power supply for increased reliability and surge immunity

- Support for RIPv2 with MD5 authentication

Ordering Information

Part Number	Description
721054	Touchstone Telephony Modem TM602B/CE - EuroDOCSIS 2.0, NCS based, 220V Power Supply & CEE7 Style Plug
722009[1]	Touchstone Telephony Modem TM602B/CE-SIP - EuroDOCSIS 2.0, SIP based, 220V Power Supply & CEE7 Style Plug
728969	Touchstone Telephony Modem TM602B/DM – DOCSIS 2.0 OR EuroDOCSIS 2.0, NCS based, 220V Power Supply & CEE7 Style Plug

Notes:
1. The ARRIS SIP software has been interoperability tested and ready for commercial deployment with the following SIP Proxy servers: Nortel, Cisco, CedarPoint, Seimens, Asterisk. Due to large number of brands on the market today with varying implementations of the SIP protocol, ARRIS cannot guarantee full interoperability with all vendors. Please contact your sales representative forthe latest list of compatible SIP Proxy servers.

Specifications

Physical

Operating Temperature °F (°C)	32 to 122 (0 to 50)
Operating Relative Humidity(Min.-Max.)	5-85%(Non condensing)
Storage Temperature °F (°C)	-40 to 158 (-40 to 70)
Color	Dark gray
Dimensions (H x W x D) in. (cm)	6.9 x 1.9 x 6.3 (17.5 x 4.8 x 16.0) - excluding F-connector
Weight lbs (kg)	1.06 (0.48)
Diagnostic LEDs	Power, DS, US, Online, Link, Telephone 1, and Telephone 2

Interfaces

RF Interface	External F-type connector
Data Interfaces (bridged)	10/100 Base-T Ethernet RJ-45 or USB 1.1
Telephony Interface	2 RJ-11
Input Power (nominal)	220 V_{AC} 50 Hz

Telephony

Supervisory Voltage	48 V_{DC} nominal
Maximum Loop Length to CPE	1500 ft (457M) of 26 AWG (0.4 mm) wire
Ringing Load Capacity	10 REN total
Provisionable High Loop Current Mode	Yes
Telcordia™ GR 1089 (Lightning and Power Surge) Tested	Yes
Programmable Interface for Worldwide Applications	Yes (supports multiple country templates)

RF Downstream

Frequency Range (MHz)	108 – 1002
Modulation (QAM)	64 or 256
Data Rate (Mbps) (Max.)	up to 51
RF Input Sensitivity Level (dBmV)	256 QAM: -13 to 17; 64 QAM: -17 to 13
Bandwidth (MHz)	8

RF Upstream

Frequency Range (MHz)	5-65
Modulation	QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM & 128 QAM (S-CDMA only)
Data Rate (Mbps) (Max.)	up to 47.62
RF Output Level (dBmV):	
A-TDMA :	+8 to 54 (32 QAM, 64 QAM), +8 to 55 (8 QAM, 16 QAM), +8 to 58 (QPSK)
S-CDMA:	+8 to +53 (all modulations)
Automatic Level Adjust	Yes
Gain Control Range (dB)	50
Frequency Stability (kHz)	±5
Output Impedance (Ohms)	75

Standards

Codec: G.711, 64 kbps, and A-law encoded speech	DOCSIS / EuroDOCSIS 2.0 Compliant
Enhanced codec software support (G.726, G.728, G.729)	RFC3261 SIP: Session Initiation Protocol
T.38 Fax Relay	UL® 60950
RFC 2453 (RIP v2) and RFC 2082 (MD5 authentication)	FCC Part 15 Class B
PacketCable / Euro-PacketCable 1.0 / 1.5 Compliant	CE