



Touchstone® TM604G Telephony Modem with Integrated Battery Backup Technical Specification

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 (W x H x D) in. (cm)	2.0 x 10.3 x 7.4, (5.1 x 26.2 x 18.8) - excluding F-connector										
Weight lbs (g)	No battery included: 1.20 (554)										
Battery: 4 cell Battery Back-up Option for up to 12 hours of battery back-up (439)											
Backup Capacity	Lithium-ion 4.4 Ah										
Battery Dimensions (W x H x D) in.(cm)	1.85 x 1.2 x 5.7 (4.7 x 3.0 x 14.5)										
Weight lbs (g)	0.50 (228)										
Battery: 8 cell Battery Back-up Option for up to 24 hours of battery back-up											
Backup Capacity	Lithium-ion 8.8 Ah										
Battery Dimensions (W x H x D) in. (cm)	2.0 x 2.0 x 6.9 (5.1 x 5.1 x 17.6)										
Weight lbs (g)	1.0										
Battery Storage Temperature °F (°C)	-4 to 140 (-20 to 60) (Note 1)										
Telemetry	AC Fail, Battery Low, Battery Missing, Replace Battery										
Diagnostic LEDs	<table> <tr> <td>Power</td> <td>Telephone 1</td> </tr> <tr> <td>DS</td> <td>Telephone 2</td> </tr> <tr> <td>US</td> <td>Telephone 3</td> </tr> <tr> <td>Online</td> <td>Telephone 4</td> </tr> <tr> <td>Link</td> <td>Battery</td> </tr> </table>	Power	Telephone 1	DS	Telephone 2	US	Telephone 3	Online	Telephone 4	Link	Battery
Power	Telephone 1										
DS	Telephone 2										
US	Telephone 3										
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Link	Battery										

Interfaces

RF Interface	External 'F' type connector
Data Interfaces	10/100 Base-T Ethernet RJ-45
Telephony Interface	4 lines; RJ-14 ("Line 1/2"), RJ-11 ("Line 2"), RJ-14 ("Line 3/4"), RJ-11 ("Line 4")
Power (nominal)	100/240 VAC, 50/60 Hz

Telephony

Supervisory Voltage	48 VDC nominal
Maximum Loop Length to CPE	1000 ft (457M) of 26 AWG (0.4 mm) wire
Ringing Load Capacity	10 REN total; 5 per line
Provisionable High Loop Current Mode	Yes (40mA constant current source, NA templates ONLY)
Telcordia™ GR 1089 (Lightning and Power Surge) Tested	Yes
Programmable Interface for Worldwide Applications	Yes (supports multiple country templates)

Technical Specification

Specifications Continued...

RF Downstream

Frequency Range (MHz)	88 - 1002
Modulation (QAM)	64 or 256
Data Rate (Mbps) (Max.)	up to 42
RF Input Sensitivity Level (dBmV)	-15 to +15
Bandwidth (MHz)	6

RF Upstream

Frequency Range (MHz)	5-42
Modulation	QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM & 128 QAM (S-CDMA only)
Data Rate (Mbps) (Max.)	up to 30.72
RF Output Level (dBmV)	A-TDMA: +8 to 54 dBmV (32 QAM, 64 QAM), +8 to 55dBmV (8 QAM, 16 QAM), +8 to 58 dBmV (QPSK) S-CDMA: +8 to +53 dBmV (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, μ and A-law encoded speech;
Enhanced codec firmware support (G.726, G.728, G.729E);
T.38 Fax Relay;
DOCSIS 2.0 based;
PacketCable 1.0 & 1.5 based;
RFC3261 SIP: Session Initiation Protocol;
UL® 60950, FCC Part 15 Class B, CE

Notes:

1. Note: Storage above 77°F (25°C) will significantly reduce life of the battery and is not recommended.
2. Battery back-up times are typical and can be influenced by the age of the battery, the charging state, storage conditions and operating temperature as well as factors such as data activity and length of active telephone calls. The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice.

ARRIS Technical Specification

Ordering Information

Part #	Description
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721068	Touchstone TM604G/NA-0 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA. Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with NEMA 1-15. Includes Quick Install Guide, Ethernet Cable, and CD-ROM with Users Guide. NO battery included
721070	Touchstone TM604G/NA-8 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 4-cell 4.4Ah Li-Ion Battery Pack. Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with NEMA 1-15. Includes Quick Install Guide, Ethernet Cable, and CD-ROM with Users Guide.
728903	Touchstone TM604G/NA-16 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 8-cell 8.8 AHr Li-Ion Battery Pack. Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with NEMA 1-15. Includes Quick Install Guide, Ethernet Cable, and CD-ROM with Users Guide.
721071	Touchstone TM604G/CE-0 DOCSIS 2.0 / PacketCable 1.0/1.5 Complaint E-MTA. Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with CEE 7/16 "Euro" Power Plug. Includes Quick Install Guide, Ethernet Cable, and CD-ROM with Users Guide. NO battery included
721073	Touchstone TM604G/CE-8 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 4-cell 4.4 AHr Li-Ion Battery Pack. Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with CEE 7/16 "Euro" Power Plug. Includes Quick Install Guide, Ethernet Cable, and CD-ROM with Users Guide.
728904	Touchstone TM604G/CE-16 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 8-cell 8.8 AH Li-Ion Battery Pack Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with CEE 7/16 "Euro" Power Plug Includes Quick Install Guide, Ethernet Cable, and CD-ROM with Users Guide.
718005	One 4-Cell, 4.4 Ah, Li-Ion Battery Pack TM604G, also fits TM502G/H, TM602G/H, TM504G/H, and TM608G
718006	Kit of 30, 4-Cell, 4.4 Ah, Li-Ion Battery Packs for TM604G, also fits TM502G/H, TM602G/H, TM504G/H, and TM608G
721192	8-Cell, 8.8 Ah, Li-Ion Battery Pack for TM604G, also fits TM602G/H and TM504G/H (Cannot be used in TM502G/H or TM608G).

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