

Building upon the success of the market leading TM508 and TM602 designs, ARRIS is pleased to introduce the TM608G. The TM608G delivers eight lines of carrier-grade Voice over IP (VoIP) along with High-Speed Data access. Featuring integrated Li-Ion battery packs and patent pending telephone interfaces adaptors, the TM608G sets a new benchmark for small business applications.



Rear view



Rear view with RJ11 Adapter Installed

IDC Adapter



RJ21 Adapter

Rack Mount Brackets



Wall Mount Brackets



## Product Highlights

### Features

- DOCSIS® 2.0 and PacketCable™ 1.1/1.5 compliant design
- Wall or Rack Mountable
- Internal 115-240 VAC, 50/60 Hz AC-DC power supply
- High Speed Internet via 10/100 Base-T Ethernet
- Up to eight lines of carrier-grade VoIP with independent configuration of each line
- Flexible telephone wiring options with RJ11, RJ21, and Insulation Displacement (IDC) interface adapters
- Ability to add, delete, and modify line interfaces without impacting operation of operational lines
- Simplified interoperability through PacketACE™ configuration file editor
- Multiple Protocol Support: PacketCable (NCS) and Session Initiation Protocol (SIP)
- RIPv2 and MD5 authentication
- Improved Line Card Performance over the TM508 - Greater than 20% increase in high loop current mode and 10% greater ringing voltage
- Loop Diagnostics for remote testing and troubleshooting of in-house wiring
- 1GHz Tuner – future proof toward future plant upgrades

### Leadership in Battery Technology

- Battery Options include a 4-cell Li-Ion solution for up to 8-hours of standby battery hold time and a 8-cell battery back for up to 16-hours of standby hold time
- Firmware configurable battery management and reporting allows customization of operational parameters
- Boot from Battery – Operators or Subscribers can start up the modem from a charged battery without AC Power.



**Specifications**

<b>Physical:</b>	<p>Operating Temperature °F (°C).....32 to 122 (0 to 50)</p> <p>Operating Relative Humidity (Min-Max) ..... 5-85% (Non condensing)</p> <p>Storage Temperature °F (°C) ..... -40 to 158 (-40 to 70)</p> <p>Color..... Dark gray</p> <p>Dimensions (H x W x D) in. (cm) .....10.3 x 2.0 x 7.4 (26.2 x 5.1 x 18.8) excluding telephone connector</p> <p>Weight lbs (g) .....No battery included: 1.2 (554)</p> <p>Battery: 4 cell, 4.4Ahr Option</p> <p>Backup Capacity ..... Lithium-ion 4.4 Ah</p> <p>Battery Dimensions in. (cm) ..... 1.2 x 1.85 x 5.7 (3.0 x 4.7 x 14.5)</p> <p>Weight lbs (g) .....0.50 (228)</p> <p>Battery: 8 cell, 8.8 Ahr Option</p> <p>Backup Capacity ..... Lithium-ion 8.8 Ah</p> <p>Battery Dimensions in. (cm) ..... 2.0 x 2.0 x 6.9 (5.0 x 4.7 x 14.4)</p> <p>Weight lbs (g) .....1.0 (439)</p> <p>Battery Storage Temperature °F (°C)..... -4 to 140 (-20 to 60)</p> <p><b>Note:</b> Storage above 77°F (25°C) will significantly reduce life of the battery and is not recommended.</p> <p>Telemetry ..... AC Fail, Battery Low, Battery Missing, Replace Battery</p> <p>Diagnostic LEDs..... Power, DS, US, Online, Link, Telephone 1 -8, Battery</p>
<b>Interfaces:</b>	<p>RF Interface ..... External 'F' type connector</p> <p>Data Interfaces (bridged) ..... 10/100 Base-T Ethernet (RJ-45 connector)</p> <p>Telephony Interface Adapters (not included) ..... RJ11, RJ14/RJ11, TII IDC (ROHS), Channel IDC (Non-ROHS), and RJ21</p> <p>Voltage (nominal ) ..... 115-240 VAC 50/60 Hz</p>
<b>Telephony:</b>	<p>Supervisory Voltage ..... 48 V dc nominal</p> <p>Maximum Loop Length to CPE ..... 1000 ft (457M) of 26 AWG (0.4 mm) wire</p> <p>Ringin Load Capacity ..... 15 REN total; 5 per line</p> <p>Provisionable High Loop Current Mode ..... Yes (40mA constant current source, NA templates ONLY)</p> <p>Telcordia™ GR 1089 (Lightning and Power Surge) Tested..... Yes</p> <p>Programmable Interface for Worldwide Applications ..... Yes (supports multiple country templates)</p>
<b>RF Downstream:</b>	<p>Frequency Range (MHz) ..... 88-1002</p> <p>Modulation (QAM) ..... 64 or 256</p> <p>Data Rate (Mbps) (Max.) ..... 30 or 42</p> <p>RF Input Sensitivity Level (dBmV) ..... -15 to 15</p> <p>Bandwidth ..... .6 MHz</p>
<b>RF Upstream:</b>	<p>Frequency Range (MHz) ..... 5-42</p> <p>Modulation ..... QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM &amp; 128 QAM (S-CDMA only)</p> <p>Data Rate (Mbps) (Max.) ..... up to 30.72</p> <p>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)</p> <p>Automatic Level Adjust..... Yes</p> <p>Gain Control Range (dB)..... 50</p> <p>Frequency Stability (kHz) ..... ±5</p> <p>Output Impedance (Ohms)..... 75</p>
<b>Standards:</b>	<p>Codec: G.711, 64 kbps, μ and A-law encoded speech</p> <p>Enhanced codec firmware support (G.726, G.728, G.729E)</p> <p>T.38 Fax Relay</p> <p>DOCSIS 2.0 based</p> <p>PacketCable 1.0 &amp; 1.5 based</p> <p>RFC3261 SIP: Session Initiation Protocol</p> <p>RIPv2 and MD5 Authentication</p> <p>UL® 60950, FCC Part 15 Class B, CE</p>

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.

# Touchstone® Telephony Modem TM608G with Integrated Battery Back-up



## Ordering Information

TM608 Base Units are shipped without a Telephone Interface Adaptor. ARRIS recommends all orders include:

### Base Unit Part # + Telephone Interface Adaptor Part #

Part Number	Base Unit Description
722827	Touchstone TM608G/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 Power Plug Includes wall mounting brackets <b>Quick Install Guide, CD ROM with User Guide, Ethernet cable, Battery, 19 inch rack mounting brackets, and Telephone Interface Adaptor are not included</b>
722828	Touchstone TM608G/NA-8 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 4-cell 4.4Ahr Li-Ion Battery Pack Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with NEMA 1-15 Power Plug Includes wall mounting brackets <b>Quick Install Guide, CD ROM with User Guide, Ethernet cable, 19 inch rack mounting brackets, and Telephone Interface Adaptor are not included</b>
722829	Touchstone TM608G/NA-16 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 8-cell 8.8Ahr, Li-Ion Battery Pack Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with NEMA 1-15 Power Plug Includes wall mounting brackets <b>Quick Install Guide, CD ROM with User Guide, Ethernet cable, 19 inch rack mounting brackets, and Telephone Interface Adaptor are not included</b>
722830	Touchstone TM608G/CE-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 CEE 7/16 "Euro" Power Plug Includes wall mounting brackets <b>Quick Install Guide, CD ROM with User Guide, Ethernet cable, Battery, 19 inch rack mounting brackets, and Telephone Interface Adaptor are not included</b>
722831	Touchstone TM608G/CE-8 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 4-cell 4.4Ahr, 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 wall mounting brackets <b>Quick Install Guide, CD ROM with User Guide, Ethernet cable, 19 inch rack mounting brackets and Telephone Interface Adaptor are not included</b>
722834	Touchstone TM608G/CE-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 CEE 7/16 "Euro" Power Plug Includes wall mounting brackets <b>Quick Install Guide, CD ROM with User Guide, Ethernet cable, 19 inch rack mounting brackets and Telephone Interface Adaptor are not included</b>
Part Number	Telephone Interface Adaptor Description
728934	TM608 RJ11 Even / RJ14 Odd Telephone Interface Adaptor
728935	TM608 RJ11 Telephone Interface Adaptor
728936	TM608 RJ21 Telephone Interface Adaptor
728937	TM608 TII Insulation Displacement Connector (IDC) Telephone Interface Adaptor
728942	TM608 Channel Insulation Displacement Connector (IDC) Telephone Interface Adaptor
Part Number	Battery Packs
718005	4-Cell, 4.4 Ah, Li-Ion Battery Pack for TM502G/H, TM504G/H, WTM552G/H, TM602G/H, TM604G, and TM608G
722842	8-Cell, 8.8 Ah, Li-Ion Battery Pack TM608G (Cannot be used in TM502G/H, TM504, WTM552, TM602, and TM604).
Part Number	Mounting Brackets
728964	19 inch rack mounting brackets for the TM608

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