ARRIS TM1602G

DOCSIS 3.0 TELEPHONY MODEM

FEATURES

- DOCSIS 3.0 16x4 Embedded Multimedia Terminal Adaptor (E-MTA)

- Two lines of primary line Voice over IP (VoIP)

- Ultra-high speed data access

- Multiple battery pack options to support telephony service during power outages

- Designed as an upgradeable solution for advanced users

- Enables both home and small businesses the speed and performance achievable with a 24x8 bonded channel cable environment along with industry-leading ARRIS voice and battery back-up features

- Cable operators can maintain competitive position against VDSL and fiber to the home services by offering subscriber data services as high as 960Mbps

PRODUCT 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)	TM1602G: 9.1 x 2.2 x 7.0 in.
	TM1602G w/ 8-cell: 9.7 x 2.2 x 7.0 in.
Weight	1.39 lbs.
Battery Pack Weights	4-Hr Pack: Li-ion 2.2 AH Capacity, 0.25 (0.11)
	8-Hr Pack: Li-ion 4.4 AH Capacity, 0.50 (0.22)
	12-Hr Pack: Li-ion 6.6 AH Capacity, 0.75 (0.33)
	16-Hr Pack: Li-ion 8.8 AH Capacity, 1.0 (0.44)
Battery Storage Temperature ˚F (˚C)	-4 to 140 (-20 to 60)
Battery Telemetry	AC Fail, Battery Low, Battery Missing, Replace Battery
Diagnostic LEDs	Power, US/OS, Online, Tell, Tel2, Battery

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PRODUCT SPECIFICATIONS

INTERFACES

RF Interface	External 75 ohm 'F' type connector
Data Interface	10/100/1000 Base-T Ethernet RJ-45
Telephony Interface	Two (2) RJ-11 jacks
Battery Interface	Custom male connector, rectangular, 2m
Input Voltage (nominal)	115 VAC, 60 Hz

TELEPHONY

Supervisory Voltage	48 Vdc 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 (40mA constant current source)
Telcordia™ GR 1089 Tested	Yes
Programmable Country Interface	Yes (support for multiple country templates)

RF DOWNSTREAM

Frequency Range (MHz)	108-1002 (edge-to-edge)
Bonded Channels	Up to 16 (24 with separate downstream license)
Tuner Configuration	Full capture tuning range
Modulation (QAM)	64 or 256
Data Rate (Mbps Max.)	Up to 640 (960 with 24 downstream license)
	Max raw DOCSIS rate; actual throughput is less due to overhead, configuration, and RF conditions
RF Input Sensitivity Level (dBmV)	-15 to +15
Carrier Bandwidth	6 MHz
MoCA® Immunity Filter	Yes

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RF UPSTREAM

Frequency Range	5-42 (A/NA, G/NA) or 5-85 (G/NA-85 versions)
Bonded Channels	Up to 4 (8 with separate upstream license)
Modulation	QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM (S-CDMA only)
Modulation Bandwidth (KHz)	
TDMA	200, 400, 800, 1600, 3200, 6400
S-CDMA	1600 3200 6400
Data Rate (Mbps, Theoretical)	Up to 120 (240 with 8 upstream license)
RF Output Level (dBmV-one channel)	
TDMA	+17-61 (QPSK)
	+17-58 (8QAM, 16QAM)
	+17-57 (32QAM, 64QAM)
S-CDMA	+17 to +56 (all modulations)
Automatic Level Adjust	Yes
Frequency Stability (KHz)	±5
Output Impedance (Ohms)	75

STANDARDS

DOCSIS 3.0 Certified

PacketCable 1.0, 1.5, 2.0 Compliant

IEEE 802.3, 802.3ab

RFC3261 Legacy SIP

ITU-T K.21

UL® 60950 / CB

FCC Part 15 Class B / ICES-003

Telcordia™ GR-1089 Lightning/Surge

Telcordia™ GR-63 NEBS

RoHS/WEEE

G.711, 64 kbps, µ-law and A-law encoded speech

Enhanced codecs: G.722, G.726, G.728, G.729E

T.38 Fax Relay