TG1682G/CX
Wireless Gateway

FEATURES:

• 24x8 Channel Bonding
• Full Capture Bandwidth Tuner
• Multi Processor Technology with a 1.2GHz Intel Atom Core Application Processor
• DOCSIS® 3.0 and PacketCable™ 2.0 compliant design
• 4 port Gigabit Ethernet Wireless Router
• 3x3 Integrated Dual Band Concurrent 2.4GHz 802.11n and 5GHz 802.11ac High Power Radios
• MoCA 2.0 for in Home Video and Data distribution over Coax
• USB 2.0 Host Port
• Two FXS lines of carrier-grade VoIP with HD voice support
• Internal Power Supply for Highest Reliability
• Battery backup

PRODUCT OVERVIEW:

Operators are wanting to push the limits on DOCSIS 3.0 performance and the user experience delivered to the customer. The TG1682G with its superior 802.11ac Dual Band Wireless radios, USB, and MoCA 2.0 interfaces can deliver this performance while also offering improvements in home coverage above that of other models. This feature-packed unit is intended to serve as the hub of the subscribers network, connecting all IP capable devices (Internet, Data, Voice and Video) throughout the customers premises.

Residential gateway support has always been a concern of the operator. The TG1682G distinguishes itself with capabilities to minimize these support needs. Multiple provisioning methods (SNMP, Configuration File, Remote WebGUI access, TFTP, and TR-069/181) allow custom designed setups to be applied to monitor the end user more efficiently. Multiple remote access levels (User, Cusadmin, and MSO) also allow more ease and flexibility for manual configuration and control.

The TG1682G will help lead the future to advanced home and small office services.
### Interface Speeds

<table>
<thead>
<tr>
<th>Interface</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>WiFi</td>
<td>1750Mbps</td>
</tr>
<tr>
<td>DOCSIS Downstream</td>
<td>960Mbps</td>
</tr>
<tr>
<td>MoCA 2.0</td>
<td>700Mbps</td>
</tr>
<tr>
<td>USB 2.0</td>
<td>480Mbps</td>
</tr>
<tr>
<td>DOCSIS Upstream</td>
<td>240Mbps</td>
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</tbody>
</table>

### Specifications

#### Physical

- **Operating Temperature °C**: 0 to 50
- **Operating Relative Humidity**: 5-85% (Non-condensing)
- **Storage Temperature °C**: -40 to 70
- **Dimensions (H x W x D) in.**: 10.1 x 10.3 x 3.25
- **Backup Capacity (not supplied)**: 4 cell 2.2AH Lithium-ion for 8 hours operation. (#718005 Battery Pack)
- **Weight lbs**: 2.5 (With Battery included)
- **Battery Storage Temperature °C**: -20 to 60 Note: Storage above 77°F (25°C) will significantly reduce life of the battery and is not recommended.
- **Diagnostic LED’s (Front)**: Power, US/DS, Online, 2.4GHz, 5GHz, Tel1, Tel2, Battery, MoCA
- **Diagnostic LED’s (Rear)**: Ethernet Link/Speed

#### Interfaces

- **RF Interface**: External ‘F’ type connector
- **Data Interfaces (bridged)**: 4 x 10/100/1000 Base-T Ethernet (RJ-45 connector)
- **Analog Telephony Interface**: 2 lines; RJ-11
- **USB Interface**: USB 2.0 Powered Host Ports
- **MoCA**: MoCA2.0
- **Input Voltage (nominal)**: 115VAC, 50/60 Hz

#### Telephony

- **Supervisory Voltage**: 48 Vdc nominal
- **Ringing Load Capacity**: 10 REN total; 5 per line
- **Provisionable High Loop**: Yes (40mA constant current source)

#### RF Downstream

- **Bonded Channels**: Up to 24
- **Tuner Configuration**: Full capture tuning range
- **Frequency Range (MHz)**: 108-1002 DOCSIS
- **Data Rate (Mbps Max.)**: Up to 960
- **RF Input Sensitivity Level (dBmV)**: -15 to +15 (DOCSIS)

#### RF Upstream

- **Bonded Channels**: Up to 8
- **Frequency Range (MHz)**: 5 to 42 or 5 to 85 depending on model
- **Data Rate (Mbps Max.)**: up to 240
- **RF Output Level (dBmV)**: +57 dBmV (64 QAM, single upstream)
- **+54dBmV (64QAM, 4-8 upstreams)**
- **+58dBmV (16 QAM, single upstream)**
- **+56 dBmV (SCDMA, single upstream)**

#### Wireless

- **Frequency Range**: 2.5GHz and 5GHz
- **Transmit Power (from any antenna)**: +27dBm (MCS7)
- **Spatial Streams**: 3
- **Receive Levels**: 2.4GHz - <88dBm 802.11n (MCS0) <-71dBm 802.11n (MCS7), HT20 5.0GHz - <84dBm 802.11ac (MCS0) <-57dBm 802.11ac (MCS9), VHT80

#### Antennas

- **3 transmit, and 3 receive (per band)**

#### MoCA

- **Frequency Range (MHz)**: 1150 – 1500
- **Network Channel Bandwidth (MHz)**: 50
- **Max Transmit Power (dBm)**: +9 max (adjustable)
- **Transmit Power Shipped (dBm)**: 0
- **Max Phy Rate (Mbps)**: 700
- **Application Data Rate (Mbps)**: 400+ bidirectional combined

### Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000556</td>
<td>TG1682G/CX-0, 42MHz Upstream, No Battery</td>
</tr>
</tbody>
</table>

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