Key Features

- DOCSIS 1.0-compliant cable modem, DOCSIS 1.1 hardware-ready, easily software upgradeable
- Full-featured compact, economical cable modem with USB and Ethernet ports
- RJ-45 10/100BaseT Ethernet port serves as interface for a computer or local area network
- USB port allows easy plug-and-play attachment of the latest Windows-based PCs
- Capable of handling downstream data transmission speeds up to 38 Mbps, upstream to 10 Mbps
- Extensive SNMP management support, MIB-II, Ethernet-like MIB, Bridge MIB, Cable Device MIB, Baseline privacy Interface MIB, RF Interface MIB
- OS-independent, works with all major software platforms
- IP address filtering
- Easy-to-read LED’s clearly display network status and activity

Overview

Hitron’s BRG-3520 is a full-featured yet economical, entry-level DOCSIS 1.0-compliant cable modem with both Ethernet and USB interfaces. Its neat, compact design and small footprint make it ideal for home, office or campus use.

The BRG-3520 is the perfect solution for cable operators who want to add the value of broadband Internet connectivity to their current or future customer base. High-speed data transfers up to 38 Mbps downstream and 10 Mbps upstream are possible over the installed HFC cable plant. Hitron’s software lets operators assign up to 15 IP addresses for deployment in small office or dormitory settings.

Installation is so quick and easy it can be done even by end-users. The USB port allows plug-and-play connectivity without opening the computer or performing complex configurations. Front panel LEDs clearly display both cable and network status. A browser-based utility allows convenient viewing of network statistics. DHCP and TFTP clients allow the modem to automatically get its IP address and configuration data from network servers, without the intervention of either the user or installer.

Advanced features include IP address filtering to prevent unwanted traffic on the network and SNMP agents that permit remote configuration and monitoring from a management station equipped with an SNMP server. DES data encryption ensures complete privacy for transmitted information.
### Upstream (Transmitter)

- **Modulation**: QPSK/16QAM
- **Symbol Rate**: 160, 320, 640, 1,280 and 2,560 ksym/sec
- **Frequency Range**: 5 to 42 MHz
- **Bandwidth**: 200, 400, 800, 1,600 and 3,200 kHz
- **Signal Level**: -15 dBmV to +15 dBmV
- **Output impedance**: 75 ohms
- **Output Return Loss**: >6 dB
- **Channel frequency accuracy**: ±50 ppm
- **Symbol rate accuracy**: ±50 ppm
- **Symbol timing jitter**: <0.02 of the nominal symbol duration over a 2-sec period
- **Reed-Solomon codes with T=1 to 10 or no FEC coding**
- **Arbitrarily programmable seed scrambler**
- **Programmable variable-length preamble**
- **CM BER performance**: 64QAM:<10 @Es/No of 23.5 dB or greater

### Downstream (Receiver)

- **Modulation Type**: 64QAM/256QAM
- **Symbol Rate**: 5.056941 (64QAM)/5.360537 (256QAM) Msym/sec
- **Frequency Range**: 91 to 857 MHz
- **Bandwidth**: 6 MHz
- **Signal Level**: -15 dBmV to +15 dBmV
- **Total input power**: (40-900 MHz) 30 dBmV
- **Input impedance**: 75 ohms
- **Input Return Loss**: 6 dB
- **Downstream Protocol**: ITU J.83-B with a subset interleave mode
- **CM BER performance**: 64QAM:<10 @Es/No of 33.5 dB or greater
  - 256QAM:<10 @Es/No of 30 d or greater

### Network Features

- **MAC Protocol**: MCNS/DOCSIS 1.0 Compliant
- **Protocol**: MCNS/DOCSIS 1.1 upgradable
- **Management**: UDP, IP, ARP, ICMP, DHCP, TFTP, SNMP, HTTP
- **Security**: Baseline Privacy
- **DA Filtering**: 32 unicast addresses

### Equipment Specifications

- **CPE Interface**: J-45 10/100BaseT
- **USB B-Type**
- **Cable Interface**: Female “F” type RF Connector
- **Power Supply**: 12V/1.25A
- **Power Consumption**: .8 Watts
- **Dimensions**: 120mm x 142mm x 30mm
  - (4.7in x 5.6in x 1.2in)
- **Storage Temperature**: -20 to +70
- **Operating Temperature**: 0 to 40
- **Operating Humidity**: 10% to 90% (Non-Condensing)