Key Features

• DOCSIS 1.0-certified cable modem; DOCSIS 1.1 hardware-ready, easily software upgradeable

• RJ-45 10/100BaseT Ethernet port serves as interface for a computer or local area network

• Capable of handling downstream data transmission speeds up to 38Mbps

• Innovative, original design using Broadcom BCM3350 cable modem chip and Microtune’s silicon tuner for enhanced product stability

• 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 BRG3510 is an entry-level MCNS DOCSIS 1.0-certified cable modem with a 10/100BaseT Ethernet LAN interface. Designed around the Broadcom 3350 chip and Microtune’s silicon tuner, the BRG3510 is a feature-rich yet economical broadband access device for home or office.

Bringing broadband access to the desktop is easy with the BRG3510. High-speed data transfers up to 38Mbps downstream and 10Mbps upstream are possible over coaxial cable. This lets cable operators offer their users wide bandwidth applications such as telecommuting, IP connectivity to small office/home office (SOHO), or high-speed residential Internet access.

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 the transmitted information. 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.
**Upstream (Transmitter)**

- **Modulation**: QPSK/16QAM
- **Symbol Rate**: 160,320,640,1,280 and 2,560 ksym/sec
- **Frequency Range**: 5 to 42MHz
- **Bandwidth**: 200, 400, 800, 1,600 and 3,200 kHz
- **Signal Level**: -8 to 55 dBmV(16QAM) 8 to 58 dBmV(QPSK)
- **Output impedance**: 75 ohms
- **Output Return Loss**: 6 dB
- **Channel frequency accuracy**: +/-50ppm
- **Symbol rate accuracy**: +/-50ppm
- **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**
- **Supports four distinct burst profiles**

**Downstream (Receiver)**

- **Modulation Type**: 64QAM/256QAM
- **Symbol Rate**: 5.056941(64QAM)/5.360537(256QAM)Msym/sec
- **Frequency Range**: .91 to 857MHz
- **Bandwidth**: .6MHz
- **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 23.5 dB or greater 256QAM:<10 @Es/No of 30 dB or greater

**Network Features**

- **MAC Protocol**: MCNS/DOCSIS 1.0 Compliant
- **MCNS/DOCSIS 1.1 upgradable (optional)**
- **Protocol**: UDP, IP, ARP, ICMP, DHCP, TFTP, SNMP, HTTP
- **Management**: SNMP, MIB-II, Ethernet-like MIB, Bridge MIB, Cable Device MIB, Baseline privacy Interface MIB, RF Interface MIB
- **Security**: Baseline Privacy
- **DA Filtering**: 16 unicast address and 256 multicast address filtering

**Equipment Specifications**

- **CPE Interface**: RJ-45 10/100BaseT (USB Connector Optional)
- **Cable Interface**: Female "F" type RF Connector
- **Power Supply**: 12V/1.0A
- **Power Consumption**: 8Watts
- **Dimensions**: 230mm(W) x 152mm(D) x 55mm(H)
- **Storage temperature**: 20 to +70deg.C
- **Operating temperature**: 0 to 40deg.C
- **Operating humidity**: 10% to 90% (Non-Condensing)