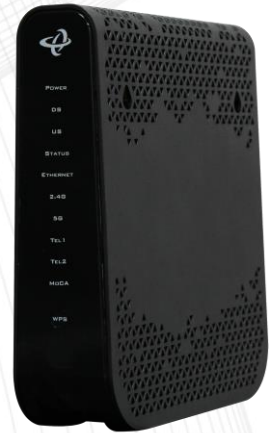


## DOCSIS 3.1 Wireless EMTA GATEWAY

Intel® Puma™ 7 OFDM 2x2 w/ fixed 5-85MHz US, 4x4 5GHz Wave2 MU-MIMO and 3x3 2.4GHz dual band Wi-Fi, GigE, MoCA 2.0, Voice, BBU



### KEY FEATURES

- DOCSIS 3.1 compliant
- DOCSIS 3.1 2x2 multi-carrier OFDM
- DOCSIS 3.0 32x8 channel bonding
- Fixed 5-85MHz upstream
- Wi-Fi 4x4 5GHz 802.11ac Wave 2 MU-MIMO and 3x3 2.4GHz 802.11n dual band concurrent internal antennas
  - 16 SSIDs (8 SSIDs per radio)
  - Individual configuration for each SSID (security, bridging, routing, firewall and Wi-Fi parameters)
- One USB 3.0 host, supporting NAS functionality
- 2 HD voice ports with PC1.5 (NCS/SIP) or PC2.0(IMS) support
- Extensive operator control via configuration file and SNMP
- TR-069 and HNAP for easy setup and remote management
- MoCA 2.0 Bonding
- Supports battery backup (up to 24h)

### UNLEASH YOUR WI-FI WITH FAST WAN AND LAN CONNECTIONS

The CHITA has the capability to receive 5Gbps based on 2 OFDM + 32 QAM downstream with 2 OFDMA upstream channels over its DOCSIS 3.1 interface. The integrated Wi-Fi 3x3 2.4GHz 802.11n and 4x4 5GHz 802.11ac Wave 2 dual band MIMO Access Point significantly improves customer experience extending range and coverage with blazing speeds. For wired clients, the four Gigabit Ethernet ports offer ultra-fast connections.

### IPV4/IPV6 DUAL STACK SUPPORT

The CHITA supports full IPv4 routing features as well as full support for IPv6 routing and firewall. The CHITA supports both DSLite as well as 6RD for different IPv6 deployment and transition strategies.

### EASY AND SECURE WIRELESS NETWORKING

The CHITA supports pre-configured and pre-enabled Wi-Fi security via Wi-Fi Protected Setup (WPS), allowing the end-user to rapidly set up a secure wireless network without manual configuration. Hitron's AutoSync software provides secure automated setup of extenders in the customer's home or business.



## SPECIFICATIONS

### Management

- Protocol support: TR-069, HNP & SNMP v1, v2c, v3
- Web-based GUI control configuration and management
- Hitron proprietary MIBs for extended support on DOCSIS, router and Wi-Fi management

### Reception-Demodulation

- DOCSIS 3.1/3.0/2.0
- DOCSIS 3.1 demodulation: Multi-carrier OFDM 16 to 4096QAM
- DOCSIS 3.1 data rate: Up to 5Gbps with 2 OFDM 192MHz downstream channels +32 QAM
- DOCSIS 3.0 demodulation: 64QAM, 256QAM
- DOCSIS 3.0 data rate: Up to 1.2Gbps with 32 bonded downstream channels
- Frequency (edge-to-edge): 108-1002MHz
- Channel Bandwidth: 6MHz
- Signal level: -15dBmV to 15dBmV
- Input return loss: >6dB

### Transmitter-Modulation

- DOCSIS 3.1/3.0/2.0
- DOCSIS 3.1 modulation: Multi-carrier OFDMA BPSK to 4096QAM
- DOCSIS 3.1 data rate: Up to 700Mbps with OFDMA 96MHz upstream channels
- DOCSIS 3.0 modulation: QPSK, 8QAM, 16QAM, 32QAM, 64QAM, and 128QAM (SCDMA only)
- DOCSIS 3.0 data rate: Up to 320Mbps with 8 bonded upstream channels
- Frequency: 5-85MHz
- Upstream transmit signal level: +11 to 65dBmV
- Output return loss: >6dB

### MoCA 2.0 Reception / Transmitter-Modulation

- Demodulation/ Modulation: BPSK, QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM, 512QAM, 1024QAM
- PHY data rate: 700Mbps (baseline Mode) / 1400Mbps (bonding channel)
- Throughput: 400+Mbps (baseline mode) / 500+Mbps (turbo mode, point to point) / 800Mbps (bonding channel)
- Frequency (center frequencies): 1025-1625MHz
- Channel bandwidth: 100MHz (baseline mode) / 225MHz (bonding channel)

### Routing Support

- Protocol support: IGMP v3 for IPTV service capability
- MAC address filtering (IPv4/IPv6)
- IP source/destination address filtering (IPv4/IPv6)
- DHCP, TFTP and ToD clients (IPv4/IPv6)
- DHCP server supports RFC 2131 (IPv4)
- DHCPv6 obtains prefix from DHCPv6 server through prefix delegation
- Firewall with stateful inspection (IPv4/IPv6)
- Hacker intrusion prevention and detection
- Application content filtering (IPv4/IPv6)
- Complete NAT software implemented as per RFC 3022/2663 with port and address mapping (IPv4)
- DSLite support for IPv4 in-home support with IPv6 MSO backbone
- 6RD support for quick IPv6 deployment over IPv4 backbone
- RIPv2 for static IP support

### Wireless

- 802.11a/b/g/n/ac
- 4T4R 5GHz (5180MHz-5240MHz) 802.11ac Wave 2 MU-MIMO + 3T3R 2.4GHz (2412MHz-2462MHz) 802.11n dual band concurrent with 450Mbps+1733Mbps PHY data rate
- 20/40/80MHz channel bandwidth
- Up to 8 SSIDs for each frequency
- Security: WEP-64/WEP-128, WPA-PSK/WPA2-PSK (TKIP/AES)
- QoS: WMM/WMM-PS
- WPS (Wi-Fi Protected Setup) PBC, PIN
- Fast roaming: 802.11r/k/v and Band Steering (BS)
- Wi-Fi output power range (FCC):
 

• 2.4G (EIRP)	29.38 / 33.31dBm
• 5G U-NII-1 (EIRP)	26.84 / 31.81dBm
• 5G U-NII-2A (EIRP)	22.34 / 25.81 dBm
• 5G U-NII-2C (EIRP)	22.34 / 25.81 dBm
• 5G U-NII-3 (EIRP)	30.84 / 32.31 dBm

### Voice

- Comply with: PacketCable 1.5(NCS/SIP) and 2.0 (IMS)
- 2x 8kHz each HD voice
- Audio codecs: • G.711 (A and mu law), G.722 (HD Codec), G.723.1A, G.726, G.728, G.729EG, WB-AMR (G722.2 HD codec)

### Electrical

- Input power: 12V, 4A
- Power: 100-240VAC, 50/60Hz
- Power consumption: 6W (power save mode), 24W (typical), 40W (max)
- Supports Battery Backup (up to 24h)
- Surge protection: RF input sustains at least 4KV, Ethernet RJ-45 sustains at least 4KV, Voice sustains at least 1.5KV

### Connectivity

- RF F-Type 75Ω female connector
- 4x RJ-45 Ethernet port 10/100/1000Mbps
- USB 3.0 type A connector with host interface
- 2x RJ-11 HD voice ports
- Battery backup communication port

### Mechanical

- 10 status LEDs (Power, DS, US, Status, Ethernet, Wi-Fi 2.4G, Wi-Fi 5G, Line1, Line2, MoCA)
- WPS button
- Wi-Fi ON/OFF button
- Factory reset button
- Dimensions: 65mm (W) x 210mm (D) x 240mm (H)
- Weight: 865g ± 10g

### Environmental

- Operating temperature: 0°C (32°F) - 40°C (104°F)
- Operating humidity: 10% - 90% (non-condensing)
- Storage temperature: -40°C (-40°F) - 70°C (158°F)

### Compliance Certificates

- FCC/DFS, UL
- RoHS compliant

