Spectrum201-H
for Charter Communications
HD Cable Digital Video Recorder

With Spectrum201, enjoy all your entertainment at once. Spectrum201 combines cable broadcast and broadband TV services, High Definition video and Digital Video Recording (DVR) - all in one device.

+ Enjoy Cable Broadcast TV
A user enjoys both high definition (HD) and standard definition (SD) channels with the Spectrum201 that offers a variety of programming choices. The program guide helps a user to find, search and choose content. Also, there are a lot of options to manage and control television viewing.

HUMAX's HD video products provide a powerful and flexible platform that enables users to capitalize on existing infrastructure while providing the capability of supporting a migration to IP Video in the future.

With multiple tuners, the Spectrum201 allows a user to watch a live TV program while simultaneously recording up to 3 additional programs and supporting multiple additional outlets.

+ Experience DOCSIS 3.0 Cable Modem
With its embedded DOCSIS 3.0 cable modem, the Spectrum201 provides significantly increased data rates. It enables multiple downstream and upstream channels at the speed up to 320 Mbps(DS) and 120 Mbps(US). When sharing QAM input between video and data services, up to 12 QAM demodulators support DOCSIS 3.0 functionality such as DOCSIS Set-Top Gateway (DSG), Metadata or Video over DOCSIS.

+ Watch Full Picture in High Definition
With the MPEG-4 and MPEG-2 compression standards, the Spectrum201 supports HD broadcast services in up to 1080p/60 image quality video.

+ Do not Miss Your Favorite Shows
With the playback options, a user can enjoy content to suit his preferences. He will pause live TV as well as recorded content, rewind or fast-forward it and record multiple channels simultaneously at his convenience. Up to 1TB content can be recorded in the built-in 3.5" HDD.

+ Safeguard Content with Conditional Access
Supporting VideoGuard Server - Downloadable Conditional Access System (VGS-DCAS) and PowerKEY® Conditional Access System (CAS), the Spectrum201 provides proven and reliable content security solutions to help minimize piracy and reduce costs.
## Technical Specifications

### System

- **CPU**: BCM7241BR
- **DRAM**: 1GB DDR3
- **NOR Flash**: 4MB
- **NAND Flash**: 512MB
- **HDD**: 1TB (3.5"")

### Software

- **M/W**: PowerUP Platform, OCAP
- **UI/Navigation Guide**: Spectrum, ODN

### RF Input

- **No of Tuners**: 4 x In-band Tuners
- **OOB**: OOB supporting DAVIC1.2, ALOHA, Si data
- **Frequency range**: 54MHz–1002MHz
- **Input level**: 45-75 dBµV
- **Input Impedance**: 75Ω
- **Connector**: F-type / IEC 169-24 / Female
- **Modulation**: QAM64 / QAM256
- **Symbol Rate**: 5.057Msps, 5.361Msps
- **Symbol rate accuracy**: ±10PPM
- **Reed Salomon decoder**: Shortened RS(204, 188) over GF(2^8)

### Cable Modem

- **Standard Compliance**: DOCSIS3.0 (BCM33843)
- **Maximum downstream rates**: 320Mbit/s (8 Channels) (Reduce 40Mbit/s per usage of In-band tuner)
- **Maximum upstream rates**: 120Mbit/s (4 channels)

### Front panel

- **Buttons**: Standby, Reset,
- **Ports**: USB2.0
- **Sensor**: Dual infrared remote control sensor
- **LED Display**: Power, Recording, Navigation, Selection, Menu

### Rear Panel

- **Ports**: Tuner, 2RCA(stereo audio), HDMI, S/PDIF, USB2.0, Ethernet (IPv4 and IPv6)

### Video/Audio Processing

- **Video Decoder**: MPEG-4 (H.264) up to HP@4.0 (HD), MPEG-2 up to MP@HL (HD), VC-1, No HEVC
- **Audio Decoder**: MPEG-1 layer 2&3, AC-3, AAC, HE-AAC v1, HE-AAC v2, MS11
- **Output Resolution**: Up to 1080p60

### Power Supply

- **Power Type**: External Power Supply
- **Input Power**: 100-120V ~ 50/60Hz
- **Output Power**: 12V ¬ 3A
- **Power Consumption under 0.1W**

### General Specification

- **Size (W x H x D)**: 320 mm x 45 mm x 200 mm
- **Operating temperature**: 0 - 40 °C (32 - 104 °F)
- **Operating humidity**: 5 - 95 % RH non-condensing
- **Storage temperature**: -20 - 60 °C (-4 - 140 °F)