



Amulet™ 400/450 Hybrid DVR



Robust & Flexible Platform for Advanced Media Delivery

Building on Entone's award-winning Hydra™ IP video gateway, Amulet is a hybrid digital video recorder (DVR) that offers a cost-effective way to deliver high-quality video services. Compact and stylish, yet Amulet is a powerful and flexible platform for advanced media delivery. It decodes popular video formats including MPEG-4 (AVC/H.264), MPEG-2, VC-1 and DivX, as well as advanced audio format decodes and transcoding capability. Amulet's integrated tuner capabilities provide digital HDTV reception from a variety of broadcast sources. Amulet is also compatible with 3D programming from major broadcasters.

Modular Networking & Expandable DVR Options

Amulet easily integrates with existing home-networks and broadband services. The integrated Ethernet connection can be augmented by either a HomePNA, WiFi (802.11 b/g/n) or HomePlug adapter. With Amulet, subscribers can blend and connect to a variety of traditional broadband services, as well as extend the capabilities of their existing home networks for more content delivery choices.

Amulet offers internal and external hard disk drive options for digital video recorder (DVR) applications. Whole-home DVR can be enabled without the hassles of costly equipment replacements or truck rolls.

Optimum Performance

The dual-core MIPS32® CPU and advanced 3D graphics acceleration engine provide for a responsive and compelling user experience. It supports popular third-party middleware and digital rights management (DRM) solutions such as Microsoft PlayReady, Minerva, Nokia Siemens Networks, Latens, Nagravision, Verimatrix, and Widevine.

Amulet incorporates Entone's DeepSleep™ technology that reduces power consumption up to 99% in standby mode when compared to competitive products. DeepSleep enables devices to resume full operation nearly immediately based on customer activity or at a prescheduled time – for example, to record a program or receive a scheduled software update. Amulet surpasses energy efficiency guidelines and regulations from the European Union's Eco-Design of Energy-Using Products (EuPs) and United States' ENERGY STAR program.

Amulet enables service providers to increase their subscriber base and generate more revenue by offering subscribers more advanced services and an enhanced user experience.

Key Features

- ◆ Easily integrates with existing in-home networks and broadband services
- ◆ Supports SD and HD programs up to 1080p resolution
- ◆ Supports advanced video and audio formats, including MPEG-4 (AVC/H.264), VC-1, DivX, Dolby Digital, Windows Media, MP3
- ◆ Supports popular networking technologies: HomePNA, WiFi, and HomePlug
- ◆ Dual processor and advanced 3D graphics acceleration engine
- ◆ Internal and external hard disk options for flexible DVR applications
- ◆ Optional ATSC or QAM tuner for broadcast reception
- ◆ DeepSleep technology for reducing power consumption up to 99% in standby mode

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Technical Specifications

Video Formats

- HD/SD H.264/AVC Main and High Profile to Level 4.1 (HD), Level 3.1 (SD)
- VC-1 Advanced Profile @ Level 3, Simple and Main Profile
- HD/SD MPEG-2 Main Profile at Main and High levels
- MPEG still image decode
- SD MPEG-4 P2 SP/ASP
- HD DivX 3.11/4.11/5.x/6x/Home Theater

Audio Formats

- AAC LC, AAC LC+SBR Level 2, AAC+ Level 2, AAC-HE
- Dolby® Digital, Dolby Digital Plus
- MPEG I layers 1, 2, and 3 (MP3)
- Windows Media® and Windows Media Pro audio
- 3D SRS audio support
- Transcoding operations including AAC to DTS 5.1 or AC3+ to AC3

Advanced Graphics

- High-performance 3D-effects graphic engine
- Studio-quality text and graphics at HD resolution
- Digital noise and contour reduction (DNR/DCR)
- Supports simultaneous HD+SD display
- Motion-adaptive de-interlacer with reverse 3:2/2:2 pull-down

Video Outputs

- NTSC-M/J, PAL-BDGHIN/M/Nc, SECAM analog outputs
- 480i/480p/576i/576p/720p/1080p/1080i output formats
- Macrovision® 7.1/NICAM support
- HDMI 1.3/DVI 1.0 Mac and PHY with HDCP 1.1

Hybrid Tuners

- ATSC
- QAM

Content Security

- AES/1DES/3DES/CSS/CPRM/DTCP copy protection
- MPEG-2/DIRECTV/DVB/ARIB data transport demux with 1DES/3DES/DVB/Multi2/AES descramblers

Back Panel Connectors

- RJ-45 10/100Base-T Ethernet with integrated status LEDs
- USB 2.0 Host Type A
- HDMI
- eSATA
- DC power
- S/PDIF optical transmitter
- S-video
- RF output
- Composite video
- Stereo audio

Front Panel

- Illuminated power standby button
- Indicators for network status, HD and recording status
- Capacitive touchpad with Menu, OK, Back and directional Up, Down, Left and Right arrows (Model 450 only)
- Single USB 2.0 Host Type A
- IR receiver

Internal Network Options

(Model 450 only)

- HomePNA 3.1
- WiFi (802.11 b/g/n)
- HomePlug adapter (external)

CPU and Memory

- Broadcom BCM7413 with 400-MHz Dual-Core CMT MIPS32/16e class processor
- 256MB (Model 400) / 512MB (Model 450)

Mechanical

- 255w x 180d x 45h mm (10w x 7d x 1.75h inches)
- 5-35°C, 30-95% relative humidity operating temperature
- Power 3.5A maximum at 12V
- ENERGY STAR compliant

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