

## Model D9844 Commercial Decoder

### Description

The Model D9844 Commercial Decoder is designed to receive broadcasts using MPEG-2 4:2:0 digital compression technology. It is ideally suited for decoding digitally compressed signals for further distribution into direct-to-home networks. Optional IP input or output interfaces provide for next generation network architecture integration.



### Secured Broadcast Reception

Availability of BISS modes 1 and E provides protected distribution of video, audio and/or data broadcasts to multiple locations. To further support interoperability, DVB-CI allows the receiver to be used in different broadcast networks with the most common conditional access (CA) systems.

### Key Features

- Single or dual decoder configuration
- MPEG-2/DVB 4:2:0 video decoding
- NTSC, PAL B/G/I/M/N/D, SECAM L/B/G/K1 video formats
- Video resolution interpolation (Pan-Scan, letter box or pass-through)
- Aspect ratio conversion (4:3, 16:9)
- Configured and controlled via front panel LCD
- Supports Basic Interoperable Scrambling System (BISS) conditional access
- Two analog stereo outputs per program
- VBI re-insertion of WST, WSS, VPS, VITC, CC, AMOL I, AMOL II
- EBU Teletext and DVB subtitling
- Redundancy support via two General Purpose Indicator (GPI) contact closures
- SNMP control and monitoring
- Web-based management (10/100 Base-T)
- Two-slot, DVB-CI common interface

### Optional Features

- Dolby® Digital (AC-3) downmixing (left and right channels)
- DVB-S QPSK input
- DVB-S2 Single Input QPSK/8PSK
- DVB-S2 16APSK, VCM, ACM
- Multiple input transport stream (MSI)
- ASI input
- Dual ASI outputs
- MPEG over IP input (without FEC)
- Link and source redundancy for IP inputs
- MPEG over IP output (without FEC)
- MPE IP Data output
- Two SDI outputs with embedded audio and VBI
- Two AES/EBU digital audio outputs per program
- Second video decoder with two audio outputs

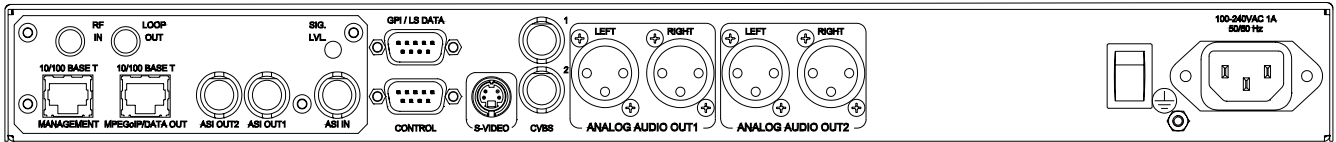
## Specifications

Feature	Description	
<b>System</b>	MPEG-2/DVB compatible	
<b>Transport Stream Inputs and Outputs</b>	<p><b>DVB Satellite – QPSK</b> Frequency Range: 950 MHz to 2150 MHz Symbol Rate Range: 1.0 to 45 Msymbols/s L-band RF input with LNB control and loop-through output</p> <p><b>DVB S2 Single Input – QPSK/8PSK</b> 16APSK software option Frequency Range: 950 MHz to 2150 MHz Symbol Rate Range: 1.0 to 45 Msymbols/s L-band RF input with LNB control and loop-through output Mode: CCM (VCM, ACM s/w option) PLL Scrambling Multiple input transport stream MSI (s/w option) Data rate: 100 Kbps – 100 Mbps</p>	<p><b>MPEG over IP Input</b> TS bit rate: up to 44 Mbps ProMPEG FEC: up to 25 Mbps</p> <p><b>MPEG over IP Output</b> TS bit rate: up to 44 Mbps</p> <p><b>ASI Input</b> Interface: copper BNC TS bit rate: up to 100 Mbps (byte and burst mode)</p> <p><b>Dual ASI Outputs</b> Interface: copper BNC TS rate: up to 100 Mbps (byte mode) Options: Input with selected program decrypted, loop-through of input stream</p>
<b>Video and Audio Outputs</b>	<p><b>Video</b> Analog video interfaces: up to 3 composite, 1 S-video Digital video interfaces: 2 x SDI with embedded VBI and stereo channels Video formats: PAL-B/G/I/M/N/D, NTSC, SECAM L/B/G/K1 Decoding: 4:2:0 MP@ML (1.5 to 15 Mbps) Video resolution interpolation: Pan-Scan, letter box or pass-through Aspect ratio: 4:3, 16:9 Graphic processing: DVB subtitling, EBU (teletext) subtitling</p>	<p><b>Audio</b> Analog Audio: up to 4 balanced stereo pairs Digital audio: up to 4 unbalanced outputs (BNC) Embedded in SDI: up to 4 stereo pairs Mode: stereo, joint stereo, dual channel, single channel Max output level: +18 dBu analog, 0 dBFs digital Gain control: -64 dB to 0 dB / mute Dolby® Digital 2.0 decoding</p>
<b>Conditional Access</b>	<p><b>DVB Descrambling</b> BISS Mode-1 BISS-E</p>	<p><b>DVB-CI</b> Interface: 2 CI slots – EN 50221 CA Method: Multicrypt, Simulcrypt CAS: Irdeto, Viaccess, Cryptoworks, Conax, MediaGuard, Nagravision, OnDigital, CODICrypt, VideoGuard Note: Viasat (uses NDS/VideoGuard) only authorizes decoders equipped with an ASI output to receive/decrypt Viasat-encrypted programs.</p>
<b>VBI Re-insertion</b>	In composite video and embedded in SDI WST teletext and inverted teletext	Enhanced VITS with built-in generator WSS, VPS, VITC, AMOL I, AMOL II, CC
<b>Data Outputs</b>	IP data (EN 301 192)	
<b>Environmental/Physical</b>	Operating Temperature: 0°C to 50°C (32°F to 122°F) Humidity: 5% to 90% non-condensing	Physical Dimensions: 1.75 in. H x 19.0 in. W x 14.0 in. D (4.4 cm H x 48.3 cm W x 35.6 cm D) Weight: 7.7 lbs (3.5 kg)
<b>Power</b>	Voltage Range: 100 V to 240 V AC Line Frequency: 50/60 Hz	Power Consumption: 50 W max. LNB Power on satellite input: +13 V/+18 V @ 350 mA max.

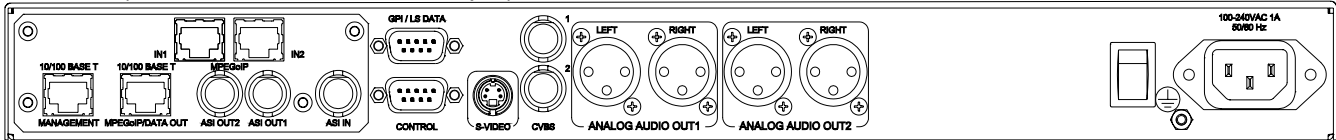
## Sample Rear Panel Configurations

### Single Decoders

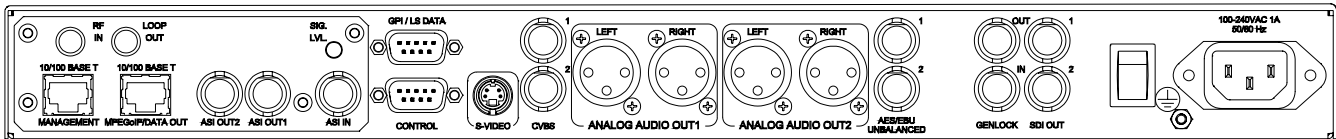
#### 4012444 and 4012746



#### 4012445 (shown with MPEG over IP Input)



#### 4012448 and 4013196



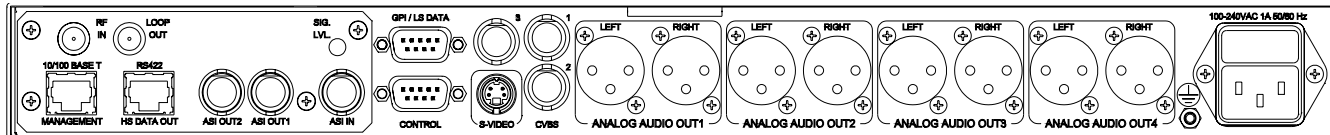
## Ordering Information (see examples above)

### Factory-configured units

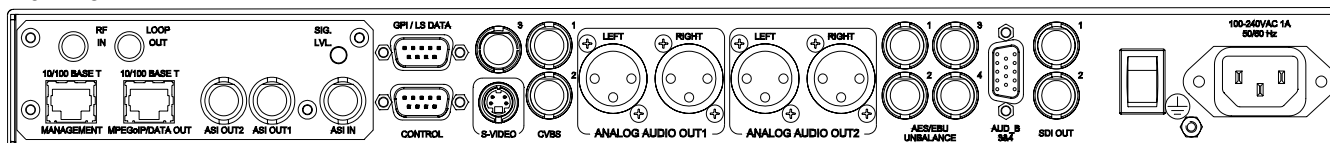
Part Number	DVB-S Input	DVB-S2 Input	MPEG over IP Input w/o FEC	ASI Input	Dual ASI O/Ps	IP Data & MPEG over IP Output	Gen-lock	SDI Out	1 <sup>st</sup> /2 <sup>nd</sup> AES/EBU Outputs	Dolby Digital (AC-3) Down mixing
4012444	√				√					√
4014373	√			√	√					√
4012445			√		√					√
4013490	√					√				√
4012746	√				√	√				√
4012446			√		√			√	√	√
4012447			√		√		√	√	√	√
4012448	√			√	√	√		√	√	√
4013196	√			√	√			√	√	√
4014372	√									
4017834	√				√			√	√	
4017835				√				√	√	
4019410	√					√		√		
4019411				√				√		
4019412				√		√		√		
4019448	√							√		
4026207		√								
4026208		√			√					√
4026209		√			√	√				√
4031103		√ VCM & MSI		√	√					√

## Dual Decoders

### 4012449



### 4012451



## Ordering Information (see examples above)

Part Number	DVB-S Input	MPEG over IP Input w/o FEC	ASI Input	Dual ASI O/Ps	IP Data & MPEG over IP Output	Genlock	SDI Outputs	3 <sup>rd</sup> /4 <sup>th</sup> Analog Stereo Outputs	1 <sup>st</sup> /2 <sup>nd</sup> AES/EBU Outputs	3 <sup>rd</sup> & 4 <sup>th</sup> AES/EBU Outputs
4012449	√							√		
4012450		√						√		
4012451		√					√	√	√	√



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Part number 7008551 Rev J  
February 2009