Scientific Atlanta
A CISCO COMPANY

Decoder

Model D9846
Professional Decoder

Description

The Model D9846 Professional Decoder is designed to receive broadcasts using MPEG-2 4:2:2 or 4:2:0 digital compression technology. It is ideally suited for contribution, broadcast and professional applications requiring 4:2:2 decoding. An optional IP interface is available for contribution networks.

Digital Video and Audio Outputs

SDI digital video with embedded audio and AES/EBU digital audio are provided for interfacing with studio quality equipment. Dolby® E pass-through is also available.

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

- MPEG-2/DVB 4:2:2/4:2:0 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)
- ASI input
- Dual ASI outputs
- Configured and controlled via front panel LCD
- Supports Basic Interoperable Scrambling System (BISS) conditional access
- Two SDI outputs with embedded audio and VBI
- Two analog stereo outputs
- Two AES/EBU digital audio outputs
- VBI re-insertion of WST, WSS, VPS, VITC, AMOL I, AMOL II, CC, in composite and SDI
- Dolby® E pass-through (audio 1 & 2 on base unit, audio 2, 3 & 4 on 4-channel version)
- Dolby® Digital (AC-3) downmixing (left and right channels)
- EBU Teletext and DVB subtitling
- Genlock for frame synchronization
- Redundancy support via two General Purpose Indicator (GPI) contact closures
- Two broadcast video outputs
- SNMP control and monitoring
- Web-based management (10/100 Base-T)
- Two-slot, DVB-CI common interface

Optional Features

- DVB-S QPSK input
- MPEG over IP input
- Link and source redundancy for IP inputs
- 3rd and 4th audio outputs (analog and digital)

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Specifications

Feature	Description	
System	MPEG-2/DVB compatible	
Transport Stream Inputs and Outputs	**DVB Satellite – QPSK** 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 **MPEG over IP Input** TS bit rate: up to 44 Mbps	**ASI Input** Interface: copper BNC TS bit rate: up to 100 Mbps (byte and burst mode) **Dual ASI Outputs** Interface: copper BNC TS bit rates: up to 100 Mbps (byte mode) Options: Input with selected program decrypted, loop-through of input stream
Video and Audio Outputs	**Video** Analog video interfaces: 2 composite, 1 S-video Digital video interfaces: 2 x SDI with embedded VBI and up to 2 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 - 15 Mbps) 4:2:2 PP@ML (1.5 - 50 Mbps) Video resolution interpolation: Pan-Scan, letter box or pass-through Aspect ratio: 4:3, 16:9 (14:9 in future release) Graphic processing: DVB subtitling, EBU (teletext) subtitling Genlock input and loop-through output	**Audio** Analog Audio: 2 balanced stereo pairs, 4 optional Digital audio: 2 unbalanced outputs (BNC), 4 optional Embedded in SDI: 2 stereo pairs, 4 optional 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 E pass-through (audio 1 & 2 on base unit, audio 2, 3 & 4 on 4-channel version) Dolby® Digital 2.0 decoding
Conditional Access	**DVB Descrambling** BISS Mode-1 BISS-E	**DVB-CI** Interface: 2 CI slots – EN 50221 CA Method: Multicrypt, Simulcrypt CAS: Irdeto, Viaccess, Cryptoworks, Conax, MediaGuard, Nagravision, OnDigital, CODICrypt, VideoGuard
VBI Re-insertion	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
Data Outputs	IP data (EN 301 192)	
Environmental/ Physical	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)
Power	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.

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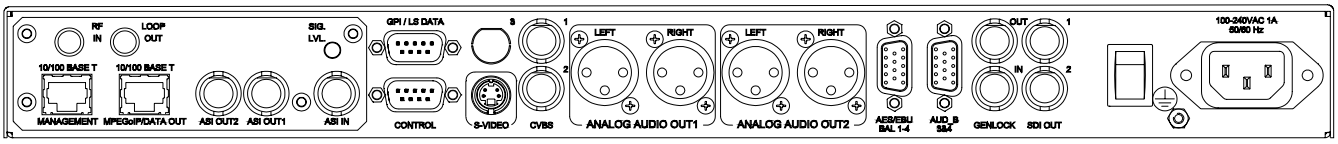
Rear Panel Configurations

4012423 (example)



Ordering Information

Factory-configured units

Part Number	ASI Input	MPEG over IP Input w/o FEC	DVB-S Input	3rd and 4th Audio Outputs
4012422	√			
4012421	√	√		
4012423	√		√	
4013692	√		√	√

Notes:

1. Lip-sync adjustment is available for audio channels 1 and 2 on p/n 4012421, 4012422, 4016650 and 401423.
2. Lip-sync adjustment is available for audio channels 3 and 4 on p/n 4013692, but not for audio channels 1 and 2.

Optional Software Licenses (for delivered D9846 decoders)

Part Number	License
4016676	Link and source redundancy for dual IP inputs

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