



FEATURES | BENEFITS

AVC 4:2:2 10-bit 1080P 59.94/50 fps and MPEG 2 4:2:2 Video Decoding IRD

Sixteen (16) Channels of Audio Decoding

Full Frame 1080P 59.94/50 3G-SDI Decoding via 3G Copper and Fiber SFP Video Interfaces

MPEG 1 Layer 2, AAC-LC and Dolby Digital Audio Decoding

AAC-6.0 Surround Decoding Support

Dolby D, Dolby E and PCM Pass-Through

Service Filtering and IP Output for Transport Turn-Around Applications

APPLICATIONS

DSNG

Tier One Contribution

3D and 4K (Ultra HD) Discrete Contribution

Fiber and IP Transport

Teleport Infrastructure

High Efficiency Trunking

Adtec Digital's RD-71 is a standard, high and 1080P IRD supporting multi-CODEC MPEG 2 and MPEG 4 AVC/H.264, multi-CHROMA 4:2:0 and 4:2:2, 10bit and very low latency. The RD-71 is interoperable with other encoders making it ideal for mission critical trunking, ad-hoc OB, DSNG and teleport applications.

The lightweight, 1 RU chassis, 10 pound (4.5 Kilo) RD-71 includes redundant AC power supplies, enhanced control and monitoring via its front-panel, browser and SNMP interface, sixteen channels of audio decoding, robust VBI support, up to 32APSK demodulation, reliability, and ease of use for an extraordinary value. The RD-71 supports MPEG 1 Layer 2, AAC-LC, Dolby Digital, Dolby # and Linear PCM audio. Transport service filtering allows the RD-71 to operate in bandwidth constrained turn-around application.

The RD-71 IRD identifies services concurrently from ASI, IP and DVB-S/S2 transport interfaces. The DVB-S/S2 de-modulator supports modes ranging from QPSK up to 32APSK with Multi-stream ISI based on demodulator. Support is hardware and software license dependent.

RD-71 10-bit 1080P Receiver/Decoder

Video Decoder Profiles: *

MPEG 2 HD/SD Profile: ISO 13818-2 MP@ML, SP@ML, 422P@ML, MP@H14L, MP@HL, SP@H14L, SP@HL and 422P@HL
 MPEG 4 HD/SD Profile: Baseline, Main, High and High422 (8-bit and 10-bit) up to Level 4.2

Supported Resolutions:

480i59.94, 576i50, 720p50/59.94, 1080i50/59.94, 1080p50/59.94

Inputs

Sync Input: Auto-detects Bi-Level and Tri-level sync for Genlock, 3D and 4K applications
 Connector: 1x BNC (75 Ohm)

DVB-ASI

Interface: ASI 188/204/208 Byte (EN 50083-9 up to 210 Mb/s)
 Connector: 1x BNC (75 Ohm)

IP

IP ports are configurable for decode and/or control
 Standard: UDP, RTP and SMPTE 2022-1 2007 FEC
 Supports 1 to 7 TS packets per IP packet
 IGMP v2 and v3 support

Input TS Rate: Up to 120 Mb/s
 Connection speed: GigE (10/100/1000 Auto-Negotiate)
 Connector: 2x RJ45

AUDIO PROCESSING PROFILES: *

Supported Audio: Up to 8 pairs (16 channels) of audio
 MPEG 1 Layer 2, AAC-LC (2.0/5.1) and AAC-6.0 surround decode
 Dolby Digital AC-3 stereo downmix and passthrough
 Dolby E and Linear PCM passthrough

CONDITIONAL ACCESS: BISS 0/1/E standard

BASEBAND OUTPUTS: *

All outputs operate concurrently

HD-SDI / SD-SDI / 3G-SDI

SMPTE 259M - SD
 SMPTE 292M - HD
 SMPTE 424M - 3G

Use: 2 Banks of SDI with independent downscale capability for SD/HD simultaneous output.
 Connector: 3x BNC (75 Ohm), 1x SFP

CVBS

SD NTSC, PAL-B/G, Composite Video Output
 Connector: 1x BNC (75 Ohm)

AES Audio

Standard: AES3/EBU Unbalanced
 Connector: 8x BNC (75 Ohm)

Analog Audio

Two balanced pairs via two DB9 connectors. (1 pair per DB9)
 Connector: 2x DB9 (600 Ohm)

VBI / VANC PROCESSING:

Waveform / Ancillary support for: Closed Captioning (CEA-608/708), AFD (SMPTE 2016), OP-47, Line 21 Captions (CEA-608), and Teletext

L-BAND DEMODULATOR (LB OPTION): *

DVB-S/S2 L-Band Tuner

Use: Dual RF inputs capable of simultaneous lock
 Connector: 2x F Type, Female
 DVB-S EN 300 421 and DVB-S2 EN 302 307

Modulation Scheme support:

QPSK / 8PSK / 16APSK / 32APSK

Supported Roll-off: 5%, 10%, 15%, 20%, 25%, 35%

DVB-S symbol rate range: 1 - 62Msym/s

DVB-S2 symbol rate range: 1 - 65Msym/s, configuration dependent

Frequency Range: 950 - 2150MHz

Input level: -65dBm to -25dBm

LNB Power and Control:

0, 13, and 18 VDC @ 500mA
 22kHz (band selection according to universal LNB for ASTRA satellites)
 Multistream Support (Single ISI per tuner)

TRANSPORT OUTPUTS:

DVB-ASI

Standard: Asynchronous Serial Interface per EN 500083-9
 Connector: 3x BNC (75 Ohm)

IP Output: UDP, RTP and SMPTE 2022 FEC
 Up to 4x IP destinations may be defined

Service Filtering

Up to 5 services per output can be defined to the ASI and IP Outputs.

PHYSICAL:

Operating Temperature: 0 to +50 °C/32 to +122°F
 Power Supply (nominal): 70 - 240 VAC
 Weight: 9 lbs, base version
 Measurements: (H X W X D) 1.75" X 19" X 18"

MANAGEMENT:

Front Panel Control with password protection capability
 Browser-based Web Interface with Advanced Security Features
 SNMP v2c available for NMS integration
 COM2 RS232 Serial connectivity

* Software keys are required to unlock full hardware support. Please contact your sales person for more info.

