

# HMR5440 Satellite Video Receiver

## Features

- Decodes HD or SD
- Decodes MPEG-2 or MPEG-4 AVC
- Fully compatible and guaranteed interoperable with the TITAN MPEG Video Encoder
- NTSC/PAL composite and SDI output
- HD-SDI and analog, HD output
- Analog, AES or Embedded audio output
- Input options ASI, DVB-S, DVB-S2, MPEG over IP, DS3/E3
- Eight audio channels
- HD/SD and 4:3/16:9 conversion
- MPEG, AC3, Dolby® E or uncompressed audio decoding
- Full control front panel
- Remote control via SNMP, Web browser or command line interface
- PGCA, BISS 1 and E decryption
- Genlock (frame sync) optional

**A rugged, compact, multi-format professional IRD, the HMR5440 Satellite Video Receiver is used in broadcast contribution and distribution applications where multiple video formats (HD/SD), interface flexibility (Satellite, IP) and content protection (BISS) is required.**

## Performance

The HMR5440 offers an unprecedented combination of features, performance and reliability at an industry leading price. Available in a simple yet highly functional base unit, the HMR5440 is a HD/SD decoder, capable of both MPEG-2 and MPEG-4 AVC. The HMR5440 is a perfect complement to IDC's TITAN™ MPEG Video Encoder.

## Video

The HMR5440 supports all common HD and SD video formats. Multiple video output formats are supported including composite NTSC or PAL, serial digital SDI for standard definition, HD-SDI and component video for high definition. Video processing is automatically sensed by the HMR5440 and processed as either MPEG-2 or MPEG-4 AVC, HD or SD. Included in the HMR5440's basic functions is video conversion from HD to SD, SD to HD, 4:3 to 16:9 and 16:9 to 4:3.

## Audio

The HMR5440 decodes up to eight audio channels (four pairs) with analog and digital outputs and embedded in the SDI or HD-SDI.

## Genlock (Frame Sync)

The HMR5440 may optionally be configured with internal frame sync for Genlocked applications. Unlike competitive products, proper lip sync is guaranteed—even while operating in frame sync mode.

## Input Interfaces

The HMR5440 is highly flexible and offers various input interfaces including ASI, DVB-S, DVB-S2, MPEG over IP, or DS3/E3.

## Operator Control

The HMR5440 supports an embedded Web browser interface or SNMP to allow for easy command and control programming. It also offers the options of RS-232 proprietary command line management and control. As with all IDC products, the HMR5440 has a fully featured front panel control.

## TECHNICAL SPECIFICATIONS—HMR5440 Satellite Video Receiver

MODEL	DESCRIPTION
Base Unit	<ul style="list-style-type: none"> <li>ASI and 2 * DVB-S QPSK RF inputs</li> <li>Decodes 4:2:0 streams from HD or SD, MPEG-2 or MPEG-4</li> <li>MPEG audio decoding plus PCM, Dolby® E or AC3 pass-through</li> <li>Video outputs analog composite or SDI in SD mode, or HD-SDI and YPrPb in HD mode</li> <li>Audio outputs analog, digital or SDI embedded</li> </ul>
<b>HARDWARE OPTIONS (Only 1 OPTION CARD SUPPORTED)</b>	
DVB-S2 Advanced Satellite Receiver Module	
DVB-S2 Advanced Satellite Receiver Module - Generation 2	
IP Interface Module	
G.703 Interface Module	
<b>SOFTWARE OPTIONS</b>	
Genlock - Internal Frame sync	
AC3 Audio Decoding	

INPUT INTERFACES	
QPSK L-band DVB-S Receiver	QPSK 2 * L-band 950 to 2150 MHz, 1 to 45 Ms/s
DVB-S/DVB-S2 Demod	DVB-S (QPSK, 8PSK, 16QAM) DVB-S2 (QPSK, 8PSK, 16APSK) 2 * L-band 950 to 2150 MHz, 1 to 45 Ms/s
DVB-S/DVB-S2 Demod Gen 2	DVB-S (QPSK) DVB-S2 (QPSK, 8PSK) 2 * L-band 950 to 2150 MHz, 256 Ks/s to 45 Ms/s
IP Input Interface	UDP, RTP, RTP with COP3 FEC
E3/DS3 Interface	44.736 or 34.368, bps
ASI Input	Maximum transport rate = 213 Mb/s
ASI Output	Active ASI loop output
VIDEO CAPABILITIES	
Video Processing	<ul style="list-style-type: none"> <li>MPEG-2 4:2:0 Main Profile @ Main Level (1 to 15 Mb/s)</li> <li>MPEG-4 Part 10 AVC Main Profile @ Level 3.1 (0.1 to 40 Mb/s)</li> <li>MPEG-4 AVC Main Profile @ L4.1 to 40 Mb/s, 1080i 25, 29.97 fps, 720p 50, 59.94 fps</li> <li>MPEG-2 4:2:0 Main Profile @ High Level (Up to 60 Mb/s)</li> </ul>
Horizontal and Vertical Resolutions	<ul style="list-style-type: none"> <li>720 x 480i (29.97 fps) NTSC</li> <li>720 x 576i (25 fps) PAL</li> <li>1280 x 720p (25 or 29.97 fps)</li> <li>1920 x 1080i (25 or 29.95 fps)</li> </ul>
Video Format Conversion	<ul style="list-style-type: none"> <li>HD to SD or SD to HD</li> <li>720p to 1080i or 1080i to 720p</li> <li>16x9 to 4x3 or 4x3 to 16x9</li> </ul>
Video Output	<ul style="list-style-type: none"> <li>Composite Analog NTSC (525) or PAL (625)</li> <li>Serial Digital Component Video (SMPTE 259M)</li> <li>Two Serial Digital Outputs per SMPTE 292M SDI @ 1.485 Gbps, BNC</li> <li>Analog HD Video, 15-Pin D Connector</li> </ul>
VBI Data	ATSC Closed Captioning (EIA-608) and (EIA-708)



### AUDIO CAPABILITIES

- Eight audio channels standard
- Analog, Digital or Embedded
- MPEG or Dolby AC3 2.0 decode
- Linear PCM, and Dolby E pass-through

### FRONT PANEL INDICATORS

Rugged push buttons, illuminated LCD, bright indicator LEDs

### CONDITIONAL ACCESS

BISS Modes 1 and E, PGCA

### STATUS AND CONTROL INTERFACES

- Embedded Web browser interface for command and control
- SNMP
- RS-232 proprietary command line monitor and control
- Fully functional front panel control

### POWER REQUIREMENTS

Supply Voltage 95 to 135 VAC or 180 to 265 VAC

Power Consumption 32 Watts (typical)

### PHYSICAL PARAMETERS

Chassis 1RU rackmount

Dimensions (H, W, D) 4.5 cm x 44.5 cm x 39 cm (1.75" x 17.5" x 15.5")

Weight 5 kg (11 lbs.)

### ENVIRONMENTAL CONDITIONS

Operating Temperature 0° to 50° C (32° to 122° F)

International Datacasting Corporation (TSX:IDC) is a global leader in providing IP-based datacasting solutions for the distribution of broadband multimedia content. IDC has a broad portfolio of advanced technology products for implementing a wide range of broadband content contribution and distribution networks. IDC's products are in demand for radio and television broadcast networks, distance learning, digital satellite news gathering and sport contribution, digital signage, digital cinema, IPTV distribution and other applications.

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