

DSR-4450

Commercial Integrated Receiver/Decoder



PRODUCT OVERVIEW

The DSR-4450 Integrated Receiver/Decoder from ARRIS brings revolutionary technology advances from the leader in premium satellite program delivery. The DSR-4450 can decode HEVC, MPEG-4 or MPEG-2 compressed video in HD or SD formats and deliver outstanding video and audio performance via analog/composite video output. The inclusion of DCII QPSK, DVB-S2, DVB-S2x and 8PSK Turbocode demodulation enables full compatibility with the latest satellite distribution networks.

The DSR-4450 comes equipped with industry standard input and output interfaces such as dual GigE and ASI enabling seamless connections to headend equipment and its sleek packaging design fits in a standard 19" relay rack and requires only a single rack unit of space.

KEY FEATURES

- Stackable 1RU Chassis design
- 2 RF Inputs (L-Band)
- Dual Gig-E and ASI transport inputs and outputs
- Multi-format HEVC, MPEG-4 and MPEG-2 HD and SD processing
- AFD support for processing proper SD output aspect ratio
- Configurable DCII subtitle overlay on decoded output
- DVB and DCII subtitle passthrough
- Advanced Modulation support with DCII QPSK, DVB-S2 8PSK, DVB-S2x 8PSK and 16APSK and 8PSK Turbocodes
- DigiCipher II conditional access control
- Dolby® Digital audio processing
- VBI reinsertion for closed caption
- DTMF cue tones for local ad insertion
- Front panel confidence monitor
- Gig-E port web browser monitoring and control
- SNMP monitoring
- Composite video output

SPECIFICATIONS

L-Band Input

Input Frequency	950 - 2150 MHz
Input Impedance	75 Ω
Input Connectors	Two (2) F-type
LNB Power Out	16-22V DC at 450 mA
Port-to-Port Isolation	40 db (minimum)

Digital Processing

Modulation Modes	DC-II QPSK, DVB-S2, DVB-S2x and 8PSK Turbocodes
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Symbol Rates

DCII QPSK	19.51 Msps and 29.27 Msps
DVB-S2 8PSK	3 to 35 Msps
DVB-S2x 8PSK/16APSK	3 to 35 Msps
8PSK Turbocodes	1 to 30 Msps

FEC Rates

DCII QPSK	3/4
DVB-S2 8PSK	3/5, 2/3, 3/4, 5/6, 8/9, 9/10
DVB-S2x 16APSK	26/45, 3/5, 28/45, 23/36, 25/36, 13/18, 7/9, 77/90
8PSK Turbocodes	2/3 (1.9), 3/4 (2.05), 3/4 (2.11), 3/4 (2.19), 5/6 (2.30), 8/9 (2.40)

Aspect Ratio Conversion (HD down-conversion)	4x3 center-cut, 4x3 letterbox, 14:9 and 16:9 (Anamorphic)
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Video Decoding

Compression Formats	HEVC, MPEG-4 and MPEG-2
HD Resolution	1080i60, 720p60 and 1080p23.98
SD Resolution	528x480i, 544x480i, 704x480i, 720x480i, 528x576i (25 fps), 544x576i (25 fps), 704x576i (25 fps) and 720x576i(25 fps)

SPECIFICATIONS (CONTINUED)

Composite Video Output (NTSC)

Frequency Response	± 0.75 dB, 1kHz–4.2 MHz
Signal/Noise Ratio	57 dB (min)
Differential Gain	4.0% p-p (max) (10% to 90% APL)
Difference Phase	4 degrees p-p max. (10 to 90% APL)
Output Impedance	75 Ω
Output Level	1.0 V p-p $\pm 5\%$
Connectors	One BNC

Audio Output

Compression Formats	Dolby AC-3 and MPEG-1 Audio Layer II
Output	Two stereo pair or four mono
Output Level	± 20.0 dBu, ± 1.0 dB into 600 Ω balanced load, adjustable (0 to -20 dB)
Frequency Response	± 1.0 dB p-p maximum, 20 Hz to 20 kHz
Total Harmonic Distortion	0.25% maximum at 1kHz, measured at 20 Hz to 20 kHz
Signal/Noise Ratio	86.2 dB minimum at 1 kHz, measured at 20 Hz to 20 kHz
Isolation, L/R	80 dB at 1 kHz
Audio Impedance	600 Ω load

Ethernet Management Port

Connector	RJ-45
Format	10/100/1000BaseT

GigE Input/Output Interface

Connector	RJ-45 (2)
Format	10/100/1000BaseT

ASI Input/Output Interface

Format	Asynchronous Serial Interface
Transmission	Byte or packet mode
Standard	CENELEC EN 50083-9
Connectors	BNC (two out, one in)

Contact Closures

Number of Contact Closures	One (Alarm or ad insertion)
Contact Closure Type	Form C, SPDT

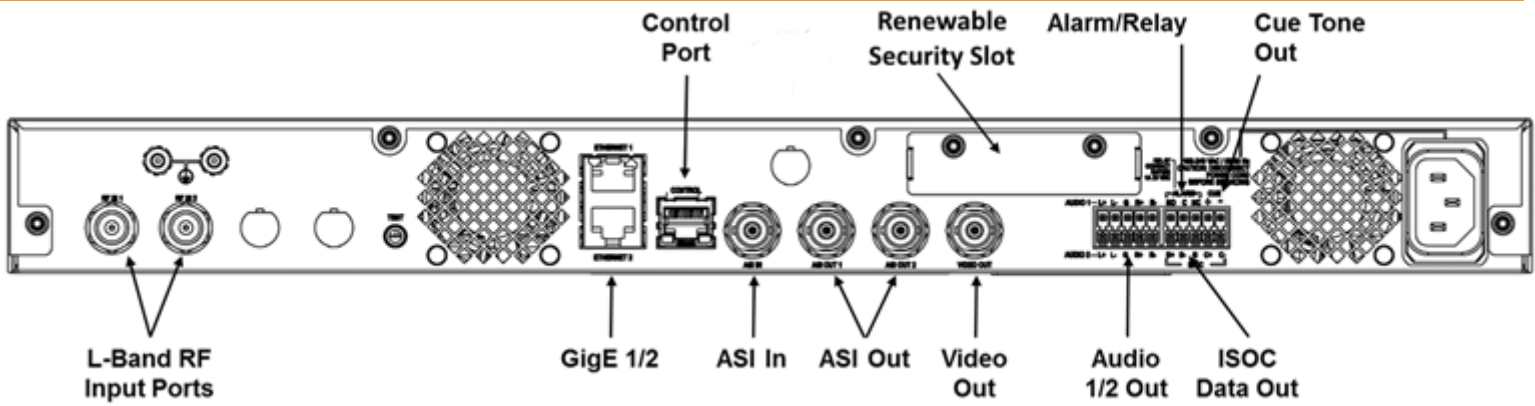
Cue Tones

Signal Type	Differential output
Signal Level	0 dBm, ± 3 dB (600 Ω)/tone
Connector	Quick disconnect terminal

SPECIFICATIONS (CONTINUED)

Physical	
Width	18.9 in (48cm)
Depth	20.5" (52.1cm)
Height	1.65 in (4.2cm)
Weight	12 lb (5.5kg) approx
Power Input	100-240 VAC, 47-63Hz, 50 W max
Operating Temperature	0 °C to 50 °C
Humidity	95% relative maximum
Display	2.2" color LCD
Other	
Limited Warranty	One year
Compliance	UL listed/approved, FCC part 15

DSR-4450 REAR PANEL



MODEL AND ORDERING INFORMATION

Model Name	Part Number	Description
DSR-4450	612302-001-00	Single Channel Decoder