

4K/UHD Software-based Receiver Decoder

MRD 7000



Backed by Sencore's years of experience in top-tier receiver decoders comes a software based decoder aimed at contribution 4K/UHD HEVC applications.

The MRD 7000 can go where low cost ASIC decoders cannot thanks to the flexibility of software based decoding. Staying agile is paramount in today's market and the MRD 7000 is ready to deliver. Decode any video codec from HEVC/H.264/MPEG2 and JPEG 2000 up to 4K/UHD.

High bitrate contribution decoding ability with support for 4:2:2 chroma sampling and 10-bit depth. The MRD 7000 supports up to 8 services of audio embedding in any format. Output module options provide excellent flexibility for any application including 12G-SDI, 4x3G-SDI and SMPTE 2110.

The receiver also maintains Sencore's long tradition of ease of use, with a straight-forward web interface accessible via all major browsers. The MRD 7000 is also backed by Sencore's best-in-class staff of ProCare support engineers.

KEY FEATURES

- Decode high bitrate 4K/UHD HEVC services
 - √ Up to Level 5.1 @ Main 4:2:2 10/High Tier
 - √ Up to 160Mbps video bitrate decode
 - √ Up to 4Kp60 and 2160p60
 - √ Up to 4:2:2 chroma at 8-bit and 10-bit depth
 - √ HDR10 and HLG HDR support
- HEVC, H.264, MPEG2 and JPEG 2000 video formats supported
- Up to 8 services of audio decoding with support for all major audio formats
- SDI, IP and HDMI output options
 - √ 12G-SDI, 4x3G-SDI and 3G-SDI
 - √ SMPTE 2110 HD outputs
 - √ HDMI 2.0 output
- Down-mix or passthrough up to eight audio services in AAC/HE-AAC, AC3/EAC3 and MPEG1/2
- Intuitive, straightforward web interface
- Web interface, HTTP API, SNMP and Syslog support

APPLICATIONS

- Contribution decode of high bitrate 4K/UHD HEVC/H.264 video services
- Downscale contribution services to 1080P for distribution

FUTURE FEATURES

- Virtualized deployment

SPECIFICATIONS

4K/UHD Software-based Receiver Decoder MRD 7000

VIDEO DECODER

MRD 7000

Base Decoding (4K/UHD/HD/SD 4:2:2/4:2:0)

Video Profile/Levels: MPEG-2 422P@HL
H.264 up to Hi422P@L4.2
HEVC M422-10P@HT up to L5.1
JPEG2000, Tier 2 up to 200Mbps

Additional Base Video Features

Video ES Bitrates: Dependent on hardware selection and licensing. Refer to configuration guide for further information.

Output Formats: 1920x1080p @ 50, 59.94, 60
1920x1080i @ 25, 29.97, 30
1920x1080p @ 23.97, 24, 25, 29.97, 30
1280x720p @ 50, 59.94, 60

Output Interfaces:

3G-SDI/12G-SDI: 1x 75Ω BNC
SDI Level Support: Level A and Level B
Digital Video: 1x HDMI 2.0a Connector

4K/UHD Video Output License

MRD 70710

Output Formats: 3840x2160 @ 23.98, 24, 25, 29.97, 30, 50, 59.94, 60

High Bit-Rate Decoding License

MRD 70720

Enables more than 8 CPU cores for high bitrate decoding. Needed for decoding over 100Mbps video ES streams.

4x3G-SDI Output Option

MRD 70110v1

3G-SDI Outputs: 4x 75Ω BNC
SDI Level Support: Level A and Level B

SMPTE 2110 HD Output Option

MRD 70120v1

Uncompressed Output: 2x MSA Compliant SFP connectors
Redundancy: Cloned outputs for SMPTE 2022-7
Output Formats: 1920x1080p @ 50, 59.94, 60
1920x1080i @ 25, 29.97, 30
1920x1080p @ 23.97, 24, 25, 29.97, 30
1280x720p @ 50, 59.94, 60

PTP Synchronization: Wide and Normal Profiles

Base Audio Decoding Features

Number of Audio Services: 8 audio services
Audio Codecs Supported: Dolby Digital (AC-3) & Plus (EAC-3)
AAC-LC, HE-AAC, & HE-AACv2
MPEG-1L2 & MPEG-2L2
SMPTE 302M

Output Formats: Digital Pass-through
PCM (Downmixed for 5.1 Sources)

Base Audio Output Features

SDI Embedded Audio Output: 8 Audio Pairs

INPUTS

Dependent on hardware selection

MPEG/IP Inputs
Physical Interface: RJ45, 10/100/1000 Auto-Negotiate
UDP or RTP
Input Format: Constant Bitrate or Null-Stripped
RTP Header Extensions Supported

IP Encapsulation: 1 to 7 TS Packets per IP Packet
Addressing: Unicast or Multicast
IGMP compatibility: Version 1, 2 & 3
Per TS Bitrate: 250 Kbps to 200 Mbps

File Inputs

File Types: Transport streams (.ts, .trp)

MANAGEMENT

Connector: RJ-45 10/100 - Auto Negotiating
Protocols: HTTP and SNMP

User Interfaces: Full control via web GUI
Automation Interfaces: Full status and control via SNMP
Configurable SNMP traps
Web services API available
Syslog message logging

Firmware Updates: Via web GUI

Physical dimensions and operating conditions dependant on hardware selection