

Kyrion

DR5000



Ultra Low Latency Integrated Receiver Decoder HEVC, H264, MPEG2

The Kyrion®DR5000 is a single channel multi-CODEC IRD, with easy setup, fast signal lock, and the industry best input robustness.

The Kyrion® DR5000 is a future-proof solution, with HEVC software upgrade option and support for 12-bit 4:2:2, SD, HD, UHD(*), MPEG2 and H264.

The Kyrion® DR5000 provide the industry best baseband video quality, with high quality down scaling and de-interlacing, based on ATEME 5th generation STREAM® engine.

The Kyrion®DR5000 receives feeds via 4x RF inputs, 2x ASI inputs and 2x IP inputs, all user selectable via front panel and web based user interface.

The Kyrion®DR5000 features advanced IP output forwarding options with descrambling and services filtering for re-distribution.

When used with ATEME Kyrion®CM5000 encoder, the Kyrion®DR5000 enables ultra-low latency MPEG/DVB compliant link.

Key features

- SD/HD/UHD HEVC, H264, MPEG2
- 12-bit 4:2:2
- BISS-CA decryption system support
- Ultra low latency mode
- Confidence Audio / Video input monitoring
- DVB-Common Interface option
- Service filtering with remuxed output
- Contribution over Internet support
- UHDLOCK™ Synchronization for 4K H264 reception

Benefits

- Best in class video quality
- Proven interoperability
- Ease of use with front panel and web GUI
- Immediate service with ultra-fast-boot and low latency
- Software upgradeability

Front Panel

Confidence Audio/video monitoring on Front panel with LCD Menus
17-keys keyboard for input & navigation
Presets import and export from USB slot
Serviceable Air Filters

Rear Panel

IP interface

1 x 100/BaseT Ethernet out-of-band for management
2 x 1000/BaseT Ethernet for MPEG-2 TS / MPTS forward

ASI interface

2 x DVB-ASI inputs
2 x ASI outputs with MPTS de-encryption/ descrambling

Audio interface

SDI Embedded up to 16 mono channels
AES-EBU output on BNC up to 8 mono channels
Optional XLR 600 Ohms balanced analog audio output up to 4 balanced stereo channels

Video output

3 x 3G-SDI (SMPTE-424M)
Optional CVBS BNC analog video output with 1 x CINCH analog audio stereo pair

Synchronization

Genlock, Black Burst Tri-level input
Genlock, Black Burst Tri-level loop output

RF interface

1 RF demodulator with 4 selectable RF inputs
Loop-through output
Fast Satellite Frequency locking
L-Band input support - frequency range: 950-2150 MHz
Downlink / L-Band frequency calculator
RF input level: -70 dBm to 0 dBm
C/N, BER, C/N margin, Link margin monitoring
Automatic or Manual DVB-S, DVB-S2/S2x selection
Adjustable search Range

DVB-S (EN 300421)

Constellation QPSK
Symbol rate up to 45 MBaud

DVB-S (DSNG EN 301210-1.1.1)

Constellation 8PSK
Symbol rate up to 45 MBaud

DVB-S2 (EN 302307-1) / DVB-S2x (EN 302307-2)

Constellation QPSK, 8PSK, 16APSK, 32APSK
Symbol rate range for QPSK to 16APSK up to 45 MBaud
Symbol rate range for 32APSK up to 40 MBaud
Roll-Off: 0.35, 0.25, 0.20, 0.15, 0.10, and 0.05

Video

HEVC Main, Main 10, Main 12, Main 422 10, Main 422 12, 60 Mbps max
H.264 Main, High, High 10, High 422
MPEG-2 Main, 422 Profiles / Main, High Levels
Video decoding MPEG-2, H.264 Bitrate: 1 to 80 Mbps
SD up to HD 1080p50/60
TS VBR support

Audio

MPEG-1 Layer II, AAC-LC, AAC-HEv1/v2 decode
Advanced Dolby E, AES302M pass through
Optional DD / DD+ decode

Audio decoded

Up to 16 mono channels on SDI and AES

Audio Pass through

Up to 16 mono channels SDI
Up to 8 mono channels AES

Configuration & Management

Ultra-fast -boot
Web Graphic User Interface
Video and Audio Confidence monitoring on front panel and web GUI
128 Presets configurations memory slots
In-band and Out-Of-Band Management
SNMP (MIB v2c) with remote SNMP supervisor
MIB download from web GUI
Firmware Update – Over The Air (ETSI 102-006)
PID filtering demux/remux
Multi-Protocol Encapsulation

Descrambling

BISS 0/1/E (Tech 3292-rev.2 and EBU R139) / BISS-CA (Tech 3292-1)
DVB-CI Common Interface Hardware option to descramble
Multi services descrambling included
MPTS with support of major CAS vendors:
Conax, Irdeto, NDS, Viaccess

ARQ solution

Zixi receiver - push and pull modes
SRT receiver - caller, listener and rendez-vous modes

Physical & Environmental

19" 1-RU (482 x 44 x 310 mm/19"x1.73"x 12.8")
3.4 kg/7.5 lbs.
Cooling air flow from front to back
User Serviceable Air Filters
Power supply 100-240 VAC 50/60 Hz
Typical consumption 34 W / 7s booting time
Operating temperature 0 to 55 °C / +41 ° to +131 °F
Storage temperature -20 to 70 °C / +32° to +158 °F
Operating humidity 5 to 90% (non-condensing)

DR5000 Ordering References

Software bundles				
	MPEG-2 420/422	H264 420 8-bit	H264 422 10-bit	HEVC 422 12-bit
DR5000-HD-420	●	●	○	○
DR5000-CI-CVBS-HD-420	●	●	○	○
DR5000-DP-CI-HD-422	●	●	●	○
DR5000-DP-CI-HD-HEVC12	●	●	●	●

● Included ○ Optional

Hardware versions			
	Dual Plug PSU	DVB Common Interface	Analog Video/Audio output
DR5000-HD-420			
DR5000-CI-CVBS-HD-420		●	●
DR5000-DP-CI-HD-422	●	●	
DR5000-DP-CI-HD-HEVC12	●	●	

● Included ○ Optional

Hardware Options	
DR5000-UIP (**)	Ultra Low delay IP interface
AEXTD-CBL	8 XLR Balanced Breakout cable for external Analog Audio output of DR5000-x-CVBS-x

Software Options	
DR5000-HEVC-422-10/12	Software license - HEVC 4:2:0/4:2:2 - 8/10/12-bit decoding support
DR5000-BISS-CA	Software license – BISS-CA descrambling support
DR5000-LIC-ARQ	Software license – Open Internet One Stream Zixi Receiver support
DR5000-LIC-SRT	Software license – Open Internet One Stream SRT Receiver support
DR5000-LIC-DLB-FULL	Software license - DD & DD+ audio decoding, support up to 4 audio tracks (mono, stereo or 5.1).
DR5000-420-FULL (*)	Software license package upgrade for DR5000-HD-420 and DR5000-CI-CVBS-HD-420, includes 4:2:2 10-bit support, 1080p, UHD lock, MPE, Multi Service Descrambling (reserved for -CI option), VBR, Interlaced Upscale, S2x, 16/32APSK, Multistream ISI, SRT.
DR5000-422-FULL (*)	Software license package upgrade for DR5000-DP-CI-HD-422, includes HEVC (4:2:0 & 4:2:2 8 & 10/12-bit), 1080p, UHD lock, MPE, Multi Service Descrambling, VBR, Interlaced Upscale, S2x, 16/32APSK, Multistream ISI, SRT.

* Contact your sales representative for the detailed list of features

** Contact factory for availability