

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 HEVC⁴ software upgrade option and support for 10-bit 4:2:2, SD, HD, UHD³, 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 complaint link.

Key features

- SD/HD/UHD HEVC, H264, MPEG2
- 10-bit 4:2:2
- Ultra low latency mode
- Confidence Audio / Video input monitoring
- DVB-Common Interface option
- Service filtering with remuxed output
- Contribution over Internet support
- UHDLCK[™] 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 AES/Analogue audio output
Up to 8 mono 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, C-band, Ku-band support
Frequency Range: 950-2150 MHz (L-Band)
Downlink / L-Band frequency calculator
RF input level: -65 dBm to -25 dBm
C/N, BeR, C/N margin, Link margin monitoring
Automatic or Manual DVB-S or DVB-S2 selection
Adjustable search Range

DVB-S (DSNG EN 300174)

Constellation 8PSK, FEC 3/5, 2/3, 3/4, 5/6, 8/9, 9/10

DVB-S (EN 300421)

Constellation QPSK
Symbol rate up to 45 MBaud

DVB-S2 (EN 302307)

Constellation QPSK, 8PSK, 16APSK, 32APSK
Symbol rate range for QPSK up to 68 MBaud
Symbol rate range for 8PSK up to 68 MBaud
Symbol rate range for 16APSK up to 45 MBaud
Symbol rate range for 32APSK up to 38 MBaud
Roll-Off: 0.35, 0.25, 0.20, 0.15, 0.10, and 0.05

Video

HEVC, Main 12, Main 4:2:2 10, Main 4:2:2 12¹, 60 Mbps max
H.264 (4:2:0 8-bit, 4:2:0 10-bit, 4:2:2 8-bit, 4:2:2 10-bit)*
MPEG-2 (4:2:0 8-bit & 4:2:2 8-bit)*
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
Dolby Digital E, DD, DD+, AC3, AC3+, PCM pass through
Optional Dolby Digital / Dolby digital Decoding**

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)

Descrambling

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

Physical & Environmental

19" 1-RU (482 x 44 x 310 mm/19"x1.73"x 12.8")
3.4 kg/8.5 lbs.
Cooling air flow from front to back
User Serviceable Air Filters
Power supply 100-240 VAC, 50/60 H or 48VDC **
Typical consumption 36 W
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					
	SD	HD	MPEG-2 4:2:0/4:2:2	H.264 4:2:0 8-bit	H.264 4:2:2 10-bit
DR5000-1-SD-420	●	○	●	●	○
DR5000-1-HD-420	●	●	●	●	○
DR5000-1-SD-422	●	○	●	●	●
DR5000-1-HD-422	●	●	●	●	●

● Included ○ Optional

Hardware versions		
	Common interface	Analog Audio output
DR5000		
DR5000-CI	●	
DR5000-CI-ANL	●	●
DR5000-ANL		●
48 VDC PSU		○

● Included ○ Optional

Hardware Options	
DR5000-CI	Common Interface with 2 CAM slots - Multi services Descrambling included
DR5000-ANL	Analog audio outputs- up to 8 mono channels. -Required AEXTD-CBL not included
DR5000-VANL**	DR5000-VANL Optional CVBS BNC Analog Video Output with 1 x CINCH- Analog audio stereo pair - Uses 1 3G-SDI output
AEXTD-CBL	8 XLR Balanced Breakout cable for External AES /- Analog Audio input for DR5000-ANL

Software Options	
DR5000-LIC-HD	Software license – High Definition support .License per channel
DR5000-LIC-422	Software license – 4:2:2 chrominance support .License per channel
DR5000-LIC-1632APSK	Software license – DVB-S/S2 demodulation 16/32 APSK support. License per channel
DR5000-LIC-UHDLOCK	Software license – 4K specific synchronization mode on DR5000. License per channel
DR5000-LIC-1080p50/60	Software license – 1080p50/60 decoding support. License per channel
DR5000-LIC-DD/DD+	Software license - Dolby Digital (AC3) & Dolby Digital Plus (AC3+) Audio decoding support - One license per Track (up to 5.1)
DR5000-LIC-ZIXI	Software license – Open Internet One Stream Zixi Receiver support for DR5000 decoder - works only in pair with Kyriion CM5000

*Depends on version

**Contact Factory for availability

¹ committed Roadmap item available via software upgrade