PRORXD - 2RU
Professional Broadcast Receiver Dual Decoder
COFDM – Video, Audio Telemetry and IP Products

September 2014 PRELIMINARY Data Sheet

The most important thing we build is trust

COBHAM

The ProRXD-2RU is a feature-rich COFDM receiver/decoder with DUAL receive and HD decoding capability in a single enclosure. Designed specifically for the demanding broadcast market, it is supplied in a 1/2 19" 2RU high rack chassis, where two units can be mounted together to occupy a 19" slot and uses standard broadcast connectors for signal interfaces.

It is available with 6-way or 8-way maximum ratio combining RF inputs, ensuring video is recovered free from the distortions typically associated with fading and multipath. All DVB-T 6/7/8MHz modes are supported, plus Cobham's 6/7/8MHz UMVL (Ultra Mobile Video Link) modulation – designed to enhance performance when utilising higher frequency bands or in high-speed TX applications such as Motorsport. Cobham Narrowband, enabling broadcast quality (4.8Mbps) signals to be transmitted in only 2.5MHz bandwidth is available as an option. Designed to work with external Cobham down- converters, the receiver can be located up to 100m from the antennas using standard 75Ω co-axial cables.

The unit incorporates an extremely flexible decoding platform, with low-delay SD and HD MPEG2 and H.264 decoding ensuring compatibility with all Cobham and most 3rd party encoders. An optional 2nd decoder can be enabled, allowing 2x SD or HD signals to be decoded. Multiple video output formats are offered with composite and SDI outputs in SD mode and HD-SDI and in HD mode. SDI/HD-SDI both feature embedded audio and HDMI outputs are provided for use with domestic TV's. ASI in/out is offered as an option.

A full Genlock facility is available in both SD and HD modes. When in HD mode, an optional downconverted SD composite video monitoring output is also offered.

The unit can also be used as an IP decoder. When paired with a Cobham Broadcast IP Encoder, the unit can send an IFB signal to the remote location via the reverse leg of the IP link. An optional adaptive bit-rate encoding/decoding mode is also available, allowing fully automated operation on variable capacity or contended networks such as VSAT or BGAN terminals.

The ProRXD-2RU can be controlled through its comprehensive, full-colour front panel touch- screen display, as well as on its RS232 or IP Ethernet browser control interfaces.

A comprehensive On Screen Graphical display is available for monitoring and diagnostics, which can be enabled or disabled separately on the two video outputs.

Features:

- DVB-T & UMVL demodulation
- 2, 4, 6 or 8 RF inputs with 8/12DC switchable downconverter powering
- Fully compliant MPEG2 and H.264 SD/HD decoding
- HD-SDI/SDI with embedded audio out
- Composite video outputs (with optional HD down-conversion)
- HDMI outputs
- IFB input (IP mode)
- 2nd decoder option
- Auto bit-rate capability (with Cobham Broadcast IP Encoder)
- ASI input and output
- Front panel control (+ Web-browser and RS232)
- Genlock input
- Comprehensive on-screen display (OSD) diagnostics
- Ultra low delay video operation for real time applications
- 2RU half-rack mounting
- 12VDC powering (AC adaptor supplied)

PRORXD-2U
Professional Broadcast Recover Dual Decoder
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Specification:

Inputs

Power	XLR4(m)
RF	8x BNC (50-850MHz)
IP Streaming/Control	RJ45
ASI In (option)	2x BNC
IFB	XLR3F
Genlock	BNC
RS232 Control	15-pin D-type

Output

2x CBVS/SDI/HD-SDI//ASI	2x BNC
ASI Out (option)	1x BNC 2x HDMI
IP Streaming/Control	RJ45
4x Stereo Line Level Audio	4x XLR3M + 2x Lemo 0B 5-way
2x RS232 Data	15-pin D-type
1x Audio headphone monitor	3.4mm stereo jack

Ethernet

Mode	2x 10/100/1G Ethernet Ports with PoE support
Function	Remote Control via web-browser

Video (dual decoding option)

Line Standard (SD)	PAL/NTSC
Resolution (HD)	720p50, 720p59, 720p60, 1080i50, 1080i59, 1080i60, 1080p23, 1080p24, 1080p25, 1080p29, 1080p30, 1080psf23, 1080psf24, 1080psf25, 1080psf29, 1080psf30, 1080p50, 1080p60
HDMI	IP MPEG-2 UDP Multicast
Decoding Mode	H.264 SD/HD 4:2:0/4:2:2
	MPEG2 SD/HD 4:2:0/4:2:2
Delay	From 15ms end-to-end
	(mode dependant)

Audio

Analogue Output	4 Stereo Pairs +18dBm (on 600 ohm)
AES/EBU	4 Stereo Balanced Pairs (110 ohm)
Sample Rate	48KHz
Format	MPEG Audio 384Kb/s to 64Kb/s
	Mono or Stereo

ASI

Mode	Byte or packet mode

Data Interfaces

RS232 Data Output	1K2 to 115K2 baud switchable

Control

Remote Control	Network Web Browser control interface RS232 Control from PC GUI Application
Local Control	Front Panel touch-screen display
Preset Loading	Front panel USB
On Screen Display	Spectrum, RX SNR, RX Power

Physical

Dimension	W 220mm, D 320 mm, H 88mm
Weight	TBA

Power

DC Input	6 to 26V Reverse Polarity Protected Power
Consumption	27-49W (downconverter dependant)

Environment

Temperature Range	-20 to +60 °C

Product Codes:

PRORXD-2-2RU	PRORX SD/HD 2-way Receiver, 2RU rack mounted
PRORXD-4-2RU	PRORX SD/HD 4-way Receiver, 2RU rack mounted
PRORXD-6-2RU	PRORX SD/HD 6-way Receiver, 2RU rack mounted
PRORXD-8-2RU	PRORX SD/HD 8-way Receiver, 2RU rack mounted

Options

IP-ADBR	Adaptive bit-rate decoding (needs Cobham IP Encoder)
RX-HD2SD	HD to SD downsampling
RX-DVBT2	Add DVB-T2 demodulation
RX-DEC2	Enable 2nd decoder
EX-POE	Enable PoE on IP output

Supplied Accessories

AC Power Supply

Audio Out Cable Lemo-2*XLR3 (x2)

RS232 Data/Control Cable

Optional Accessories

2RU Full-width Rack Extender kit

2RU Joining kit (joins 2 units to form full 19" rack-width)

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