

PRORX – Professional Receiver Decoder

COFDM – Video, Audio Telemetry and IP Products

COBHAM

October 2011 Data Sheet

The most important thing we build is trust



The PRORX from Cobham Tactical Communications and Surveillance is a feature rich multi-way diversity COFDM receiver, featuring Cobham technology at its core. Supporting interoperation with other manufacturers' DVB-T systems and able to receive the Cobham transmitter family, the PRORX is supplied in a 1/2 19" 2U high rack receiver chassis, where two units can be mounted together to occupy a 19" slot.

It is available with 2-way, 4-way, 6-way and 8-way maximum ratio combining RF inputs, ensuring video is recovered free from the distortions typically associated with fading and multipath. Designed to work with external Cobham down-converters, the receiver will provide phantom power on its inputs for this purpose.

The PRORX incorporates a fully featured SD MPEG2 decoder, with composite and SDI video outputs as well as a Genlock video input. As a future upgrade, it will have an option for an internal HD decoder, but in the interim can be complemented with an external HD decoder for high quality applications.

The PRORX can be controlled through its OLED front panel display, as well as on its RS232 or IP Ethernet browser control interfaces.

For customers wanting to distribute received video to remote locations, the PRORX is supplied with ASI and IP streaming outputs.

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

The PRORX can be upgraded with a second video decoder output (PRORX-DEC2). The advantages and limitations of this are described in a separate datasheet.

Features:

- 2, 4, 6 or 8 way COFDM diversity
- Fully MPEG2 compliant including 4:2:2
- DVB-T compliant 8/7/6MHz
- Maximum ratio combining antenna diversity for fade and multipath elimination
- Narrowband 2.5 and 1.25MHz compliant
- SDI with embedded audio out
- ASI input and output
- IP control and streaming video
- Genlock input
- Comprehensive on-screen display (OSD) diagnostics for link analysis, including spectrum analyser
- External down-converters for convenient antenna placement
- Internal AES128/256 bit encryption (option)
- Very low delay video operation for real time applications..

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Specification:

Down-converters

RF In	TNC
UHF Out	TNC

Input

UHF Input 1 to 8	TNC
Power	4 pin 1B Lemo
ASI In	BNC
Genlock	BNC
RS232 Control	9-pin D-type

Output

2 * SDI Video	BNC
2 * Composite Video	BNC
ASI Out	BNC
2 * Stereo Line Level Audio	5-pin 0B Lemo
2 * RS232 Data	9-pin D-type

RF

Frequency Bands	70 to 850MHz
With additional Down-Converter	5.62 to 5.9GHz, 4.5 to 5GHz with DCB 450500, 2.20 to 2.55GHz, 2 to 2.5GHz with DCB 200250
Tuning Steps	250kHz

Modulation

DVB-T Bandwidth	8/7/6MHz
DVB-T Guard	1/32, 1/16, 1/8, 1/4
DVB-T FEC	1/2, 2/3, 3/4, 5/6
DVB-T Modulation	QPSK, 16QAM, 64QAM
Sensitivity	-95dB plus

Video

Line Standard	PAL/NTSC
Outputs	SDI (2) and Composite (2)
Resolution	704, 528, 480, 352
Coding Mode	MPEG 4:2:2 or 4:2:0
Delay	80ms

Audio

Analogue Output	2 Stereo Pairs +18dBm (on 600 ohm)
AES/EBU	2 Stereo Balanced Pairs (110 ohm)
Sample Rate	48kHz
Format	MPEG Audio 384Kb/s to 64Kb/s Mono or Stereo

ASI

Mode	Byte mode
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Data Interface

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 OLED display with navigation keys
On Screen Display	Spectrum, RX SNR, RX Power

Ethernet

Mode	10/100/1G Ethernet Port
Function	Remote Control MPEG-2 UDP Multicast

Physical

Dimension Base Unit	W 220mm, D 358mm, H 87.5mm
Down-converter	L 102mm, W 100mm, H 35mm
Weight Base Unit	2.8kg
Down-converter	300g

Power

DC Input	9 to 16V Reverse Polarity Protected
Power Consumption	20W (Two Way Diversity Inc. D/C) 28W (Four Way Diversity Inc. D/C) 36W (Six Way Diversity Inc. D/C) 44W (Eight Way Diversity Inc. D/C)

Environment

Temperature Range	-20 to +60 deg C
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Product Code:

PRORX-2 2 way diversity, IP interface, SDI, Genlock
PRORX-4 4 way diversity, IP interface, SDI, Genlock
PRORX-6 6 way diversity, IP interface, SDI, Genlock
PRORX-8 8 way diversity, IP interface, SDI, Genlock

Product Code Includes

1 x CA0528	PSU12 Power Supply
1 x CA0339	Audio Out Cable Lemo-Phono
1 x CA0511	Data/Control Cable
8 x CA0069	Down Converter to RX
1 x CA0113	External DC Cable

Accessory Options

PRORXSFRP	42HP Single Rack Front Panel
PRORXCPLKT	PRO RX Coupling Kit

Licensing Options

PRORX-UP	Upgrade with extra 2 way diversity (factory)
PRORX-DEC2	Upgrade with 2nd Decoder output
RX-N	Narrowband 2.5MHz
RX-UN	Upgrade to Ultra-Narrowband 1.25MHz
RX-UXN	License RX Upgrade from RX-UN to MPEG4 Ultra-X Narrowband 625kHz
NETRXIPUP	IP Streaming
AES128RX	Receiver Decryption
AES256RX	Receiver Decryption

HD Options

Please see the PRORXB product range

For further information please contact:

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