



Engineered for the film industry

Exceptional picture quality in HD and UHD using 10bit HEVC, reliable COFDM RF, low latency and up to 8 RF inputs with MRC technology.

The Helios RX ULTRA is a rack mounted receiver able to decode both H.264 and HEVC, providing a future proof platform that will also work with other known RF systems including Cobham / DTC and BWS.

The large touch screen allows easy access to the menu and the web UI enables easy remote control for larger infrastructures.

Combined with our class leading downconverters built with internal switchable bandpass filters, the robust 4 input RF platform ensures that you always get the best performance whatever the challenges. The Helios RX-ULTRA enables onward

streaming of video and audio and supports multiple formats, including SRT. Timecode and HDR metadata pass-through are also fully supported. Helios can support ST2110 interfaces for users requiring high rate video over IP solutions using the SFP interface provided.

Video Key Points

- 10 bit 4:2:2 video
- 12G UHD Output
- Rack mounted receiver system
- HEVC and H.264 decoding
- 4 way MRC diversity receive antennas
- Low-Latency
- Support for HDR metadata

- Timecode signal injection
- LUT implementation (future upgrade)
- Web UI control
- Camera auxiliary Metadata passthrough

RF Key Points

- COFDM Ultra long range RF
- DVB-T
- Licensable frequency options, it does not use standard WiFi channels
- Transmit to unlimited simultaneous receivers
- Paired with the RW downconverters creates exceptional RF performance

The Helios range

The Helios range from Rogue Waves is designed from years of wireless systems experience in broadcast and film industries.

We have specifically constructed each component to be practical for the unpredictability of a film and TV set, while keeping it rugged and lightweight at the same time.

Using up to 10bit 4:2:2 sampling bonded with low latency HEVC encoding, allows for an exceptional video signal to be carried through the air, even when transmitting HDR or Camera native log images (S-Log, C-Log, 3G10, etc.)

Helios is a 4K UHD capable system, with a 12G input for professional film and broadcast cameras.



Specifications

Connectors	
12G/HDS DI	4 x Micro HD-BNC Female 75 ohm
SFP	1 x SFP Interface
ASI Out	BNC Female 75 ohm
Genlock In	BNC Female 75 ohm
RF In	8 x BNC Female 75 ohm
Audio Out	2 x XLR Male 3 pin
Control	RJ45
Stream	RJ45
Data	Hirose 4 pin Male
Power 12V In	XLR Male 4 pin
RF	
UHF Inputs	4 - 8 x UHF Maximum Ratio Combining
Tuning Step Size	250kHz
DVB-T Modulation	
DVB-T Bandwidth	Dual Ped, 8MHz, 7MHz and 6MHz modes
DVB-T Guard	1/32, 1/16, 1/8, 1/4
DVB-T FEC	1/2, 2/3, 3/4, 5/6, 7/8
DVB-T Modulation	QPSK, 16QAM, 64QAM
Video	
Video Coding	H.265 and H.264* (DTC Licence required)
H.264	1920x1080p 60/59.94/50Hz
	1920x1080i 60/59.94/50Hz
	1920x1080p 30/29.97/25/24/23.97Hz
	1920x1080psf 30/29.97/25/24/23.97Hz
1280x720p 60/59.94/50Hz	
UHD *Licence required	4K UHD, 4:2:2/4:2:0, 8/10-bit 2160p 23.98/24/25/29.97/30/50/59.94/60
HEVC HD	HD, 4:2:2/4:2:0, 8/10-bit
	720p 50/59.94/60
	1080i 50/59.94/60
	1080p 23.98/24/25/29.97/30/50/59.94/60
	1080psf 23.98/24/25/29.97/30
Monitor	
SFP	MSA or non-MSA modules 12G-SDI secondary output for monitoring including down sampling to HD
HDR/WGC	Rec. ITU-R BT.2100-2 (PQ and HLG) Rec. ITU-R BT.2020

Audio	
Format	Embedded
Decoder	MPEG-1 Layer 1, MPEG-1 Layer-2, Linear PCM
Quantity	8 pairs
Analogue	Line Level (+18/+24 dBu)
DVB ASI	
Transport stream to 100Mb/s	
IP Streaming	
Formats	Unicast / Multicast / UDP / RTP / SRT (JCTCP future upgrade)
Bitrate	50Mb/s maximum
Genlock	
Tri Level / Black Burst	
Indicators	
Display	High Brightness IPS/TFT with touch screen control
Control	
Local	Touch Screen
Remote	IP web browser control
Physical	
Size (WxDxH)	½ 19" 2RU 260*x400x88mm (* including rack ears)
Weight	4Kg
Mounting	Rack Mounted Side-by-side mount kit available as an option
Cooling	Front to rear forced air
Power	
Power In:	12V DC
Power consumption	50-80W depending on number of downconverters

Overview

Ultra Long Range COFDM

Low Delay

Keep away from Wifi frequencies

Unlimited simultaneous receivers



Dimensions

