🎚 KEY BENEFITS

- End-to-end latencies as low as 40ms for live applications

- Up to 50% bit-rate reduction compared with h.264

- Decoding of 4x simultaneous HD signals from a single 1RU unit

- Reception of true 4K UHD signals with HDR

- IP and DVB-ASI in

- SRT stream decoding and ST2022-7 packet switching

- Comprehensive touch-screen front panel display

- Optional ST-2110 interface

- Saves Rack Real-Estate – up to 4x HD Decoders in a single 1RU

- Software upgradable to 4K/UHD

- Supports high-rate IP streaming formats including SRT

- Feature-rich interfaces and options

- Supports redundant network inputs with packet switching

ONYX
DECODER

Onyx HEVC is a broadcast quality h.265 Decoder, offering exceptional compression ratios on video resolutions up to 4K UHD. The Onyx Decoder is ideal for remote production applications over leased lines or satellite, handling 4xHD or 1xUHD feed with ultra-low latency.

Onyx is a feature-rich family of professional broadcast encoders and decoders, able to stream across dual networks using a variety of IP formats including SRT, at bit-rates of up to 120Mb/s. The use of ST2022-7 technology at the decoder ensures glitch-free recovery from network errors or path fail over. For legacy systems and satellite modem connection, the Onyx encoder is equipped with ASI inputs and outputs. Optional encryption mechanisms such a BISS and DES can be employed to protect valuable content.

Onyx is ultra-compact and in QuadSync mode can deliver up to 4x decoded HD signal streams in a single 1RU enclosure allowing it to be integrated with minimal disturbance to existing rack layouts. Onyx's unique QuadSync mode encodes 4x non-synchronous HD signals of differing formats (frame-rate must be the same) and at the decode side, output is then converted to a single production format and is fully synchronized. There is a genlock input for studio synchronization.

Each video output can support 2 stereo pairs of embedded audio or a single video can support 8x stereo pairs. Onyx can also be equipped with an optional analogue audio interface allowing two stereo analogue audio outputs.

The separate control port offers web-browser control and a touch-screen front panel is supplied for local control and monitoring.

A dual input power supply is included for use where redundant power systems are available.

ONYX DECODER | *KEY FEATURES*

CONNECTORS

Video Out 1-4	3G / 12G SDI HD-BNC x 4
Video Monitor	3G / 12G SDI HD-BNC
ASI In	HD-BNC
ASI Out	HD-BNC
Genlock	HD-BNC
Stream 1 / 2	1000Base-T Ethernet RJ45 x 2
Control	1000Base-T Ethernet RJ45
Serial Data	9-way D-type female
Analogue Audio In/Out	3x Hirose 6W Female
ST2110 I/O	SFP Cages
Single SFP Interface	HDMI or IP Gateway SFP
Mains In	IEC Connector

VIDEO DECODER

Profiles	**4K UHD**. 4:2:2/4:2:0, 8/10-bit 2160p / 23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60
	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
	SD 4.2.2/4.2.0 480i / 29.97 576i / 25

LATENCY *(if used with Sapphire or Onyx Encoder)*

Encoder + Decoder	End-to end as low as 40ms (format dependant)

AUDIO DECODER

Format	Embedded
Decoder MPEG1-L2	8 pairs LPCM/MPEG1-L1/

ANALOGUE AUDIO *(Option)*

Audio Outputs	2x pairs, Mic/Line-level

STREAM INPUTS / OUTPUTS

DVB_ASI	
IP Interface	3 x 1000Base-T Ethernet
IP Stream Format	Unicast / Multicast / UDP / RTP / SRT
IP Stream Rate	120Mb/s maximum
Packet Switching	ST2022-7

HDR/WGC

We support	Rec. ITU-R BT.2100-2 *(PQ and HLG)*
	Rec. ITU-R BT.2020

INDICATORS

Display	Full colour capacitive touch-screen

CONTROL

Front panel touch-screen	
Remote	IP web-browser Control RS232

DIMENSIONS

Size (WxDxH)	482mm x 352mm x 1RU
Weight	2.9Kg

POWER

AC in:	2x 90-255VAC 15W @ 4K Decoding
DC in	9-36VDC (OPTION)

WAVE CENTRAL
A DOMO BROADCAST COMPANY

99 GARDEN PKWY | SUITE C | CARLISLE PA, 17013 📞 1.888.736.9283 🌐 WAVECENTRALRF.COM in WAVE CENTRAL, LLC