QUANTUM W Portable Audio Codec
Remote Commentary Unit with optional Video decoder function

OVERVIEW

This CU includes 3 mic /line inputs and 3 headphone outputs. Additional sources to its embedded mixers are USB Audio, AES/EBU or AoIP/AES67 (DANTE or Ravenna optional) inputs.

The CU is built around two bidirectional audio codecs and a video decoder. The communication can follow either other BRAVE, SIP or RTP protocols.
The device is stereo capable.

APPLICATIONS

All-in-one box solution for remote commentaries linking two bidirectional audio streams with four independent voices /sounds /or mixed audios to the studio or Host Broadcast Center.

Additionally a video downlink stream can be decoded internally and shown on a general purpose monitor, enriching the information supplied to the talents.

Highly reliable jobs are achieved using Diversity and Bonded streams over a group of network interfaces (2x Ethernet, 2x LTE and Wifi).

Perfect sounds are encoded using a choice of advanced and low delay compression algorithms for sport and concerts.

SPECIFICATIONS

Specifications and designs are subject to change without notice.

AUDIO FEATURES

AUDIO INPUTS
- 3 Mic/Line with 48V phantom power (XLR connectors)
- 1 AES/EBU (XLR connector)
- 1 International Sound (XLR connector)
- 1 USB Stereo
- Dante/AES67 or Ravenna/AES67 (optional)

AUDIO OUTPUTS
- 2 Auxiliary Outputs (XLR connectors)
- 1 USB Stereo
- 3 Headphone Outputs (jack 6,35mm)
- Dante/AES67 or Ravenna/AES67 (optional)

COMPRESSION ALGORITHMS
- PCM (16, 20 & 24 bits)
- Enhanced apt-X
- OPUS
- G722
- G711
- MPEG Layer 2
- MPEG AAC LC, LD, HE & ELD (optional).

AUDIO MIXING
- In-built channel mixer for both input and output sources
- Two different mixing matrixes for audio inputs

CONTROL
- Local control via touchscreen or web browser
- Remote control of levels and signals via ProdysControlPlus

VIDEO FEATURES

VIDEO OUTPUT COMPRESSION
- H.264 video decoder and encoder (2021)
- Simultaneous encoding and decoding operation

PROTOCOLS
- MPEG-TS, SRT and BRAVE transmission protocols

COMMUNICATIONS FEATURES

IP PROTOCOL
- Fully TCP/UDP/IP connectivity
- IP Unicast, Multicast and Multi-Unicast audio streaming transmission/reception
- Independent channels for transmission and reception
- SIP/SDP/RTP/STUN according to N/ACIP EBU Tech 3326 & 3368
- FEC (Forward Error Correction) and Active Packet Recovery to recover from packet losses
- Automatic Jitter Buffer to avoid audio dropouts
- SIP Diversity with two IP interfaces

OPERATION
- Dual stereo operation over IP: Program & Talkback lines
- Bonding or diversity upto 7 links for secure audio streaming with proprietary BRAVE protocol

ETHERNET
- 2 Ethernets ports for redundancy or splitting control and stream
- 10/100/1000 BaseTx Ethernet ports (RJ45 connectors)

Wi-Fi
- Wi-Fi interface 802.11 b/g/n with USB module (optional)

3G/4G
- 2 options for streaming (optional)
- Two internal modems (local or worldwide coverage)
- External Communications Module with 4 SIM cards

ISDN
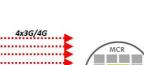- Optional

OPERATIONAL FEATURES

CONTROL
- User friendly interface via touch panel, built-in Web Server or ProdysControlPlus application.
- Configurable user access control
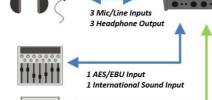- Powerful and flexible Presets, Profiles and Alarms

DIMENSIONS & WEIGHT
- L x W x H: 210 x 235 x 85 mm
- Approximate weight: 1.9 Kg

Quantum W

Commentary unit with video over IP

1 Stereo USB Audio I/O

3 Mic/Line Inputs
3 Headphone Output

1 AES/EBU Input
1 International Sound Input

1 H.264 Video I/O

4x3G/4G

2xEthernet

1xWi-Fi

MCR

7xIP Connections with Bonding/Diversity