

CFU

H.264/MPEG-4 Digital On-Board Transmitter

The CFU unit is one of a family of transmitters specially designed and built to withstand the very high levels of vibration from on-board vehicles.

In addition to transmitting SD/HD video and audio, the unit provides a User Data channel for on-board sensors such as speed and position. In addition, it includes a built-in narrowband UHF data receiver for remote control of the CFU, as well as other on-board units, such as cameras and pan/tilt heads.



Key Features

- Four HD SDI video inputs, from external cameras, with an internal remotely controlled video matrix, suitable for live switching
- Interfaces directly to Vislink miniature HD camera and provides full remote colorimetry control.
- Two Audio Channels, with one in-built microphone, pre-conditioned by compression and limiting for use in high sound pressure levels.
- Superb broadcast quality H.264 encoding
- 500mW TX power
- Modulation ISDB-T with time interleaving for improved RF ruggedness.
- Camera power management, for efficient operation from car power or battery
- Built in agile UHF data RX for remote control
- Compatible with all Vislink receive products ranging from briefcase receivers to multiple channel MDR based systems.
- Supplied with comprehensive Vislink software for complete system control, monitoring and organization including:
 - Racking client
 - Director client
 - Engineering control, for bench testing
 - Data server

Typical Applications

- Event Coverage
- Sports Coverage
- Onboard Coverage

Frequency Bands

- 2.0 to 2.5 GHz
(Other bands are available)

Frequency Selection

- 1MHz steps, selectable via remote telemetry

Transmit Antenna

- Vislink Omni-Directional
- Low Profile

Modulation

- COFDM ISDB-T 2K, with Time Interleaving selectable 100ms, 220ms, 440ms

Modulation Modes

- QPSK, 16QAM, 64QAM
FEC: 1/2, 2/3, 3/4, 5/6, 7/8
- Guard interval: 1/32, 1/16, 1/8, 1/4

Bandwidth

- 6 & 7MHz switchable

Data Rate

- 4 to 31 Mbit/s

Encoding

- H.264/MPEG-4, level 4.0 video
- Profile 4.2.0
- Audio MPEG-1 layer 2/layer 1 depending on delay setting

Latency

- Selectable down to less than 1 frame, 33ms

Inputs

Video

- SDI HD SMPTE-292M (299M) 1080i / 720p, (1080p future)
- SDI SD SMPTE-259M (272M) 576i / 480i

Audio

- 2 channels
- Built in microphone optimized for high pressure levels and pre-conditioned by compression and limiting
- Audio encoding rate selectable 128, 256, 384kBit/s

User Data

- Dedicated CAN processor with built in diagnostic data for battery level, UHF receiver signal level, unit ID, TX temperature

UHF Data Receiver

- Built in UHF data receiver:
 - Remote control of the TX
 - Switching between 4 on-board HD cameras
 - Control of other on-board units such as camera and pan/tilt unit

Power Supply

- 12 – 16 VDC

Size

- 190 x 100 x 47mm (7.5 x 3.9 x 1.8 in)

Environmental

Temperature

- -20°to +50°C

Altitude

- 4500m

Humidity:

- 95% long term