



Description

The INCAMTX-H system from Broadcast Wireless Systems is a COFDM digital video transmitter specifically designed to mount to the latest generation of Hitachi SK-HD and Z-HD series of cameras. It enables users to convert their SMPTE fibre or Triax equipped camera to a fully featured RF wireless camera, including full telemetry control.

Utilising class-leading Cobham RF technology and High Profile H.264 encoding, the transmitter offers Ultra Low Delay, low power consumption, exceptional range and 40% lower bit-rates compared to legacy MPEG2 systems. This allows true HD transmission in a single 8MHz channel whilst using robust, lower order modulation.

The unit also offers a full Telemetry system which provides remote control of iris, black level, colour balance and other control features, accessed from a standard Hitachi RCP (not included).

Key Features

- Seamless integration into camera body for enhanced balance and reliability
- Ultra-low delay H.264 encoding (15ms end-end in 720p59 mode)
- DVB-T and UMLV modulation for enhanced high-frequency operation
- 1W booster amplifier option
- Telemetry control of iris/black-level/colour balance etc. via standard Hitachi RCPs
- Full control of all TX and telemetry functions via flip-down panel
- Low power consumption
- Flexible receive system with up to 8 antennas for extended coverage range
- Available in frequency bands from 230MHz to 8.6GHz
- Comprehensive range of accessories including 'plug-and-play' fibre-optic antenna extenders

Broadcast Wireless Systems Ltd.

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Connectors

RF out (video/audio)	N(f)
RF in (telemetry)	SMA(f)
Audio Inputs (Line/Mic)	XLR3(f) x2
Video Out	BNC(f)
Ext ViewFinder Input	BNC(f)
External DC input	XLR4(m)
External Tally Out	Hirose 6-pin
External DC Out/Data In	Hirose 4-pin

RF

Frequency Bands	340MHz to 8.6GHz (in bands)
Tuning Step Size	250kHz
O/P Power	100mW (1W booster available)

DVB-T Modulation

DVB-T Bandwidth	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
DVB-T Bit-rates	3.6Mbps to 32Mbps

Video

Video Input	HD-SDI direct from camera
Compression Type	AVC/H.264/MPEG-4 Part 10
Coding Mode	High profile level 4.1, I/P 4:2:0 & 4:2:2 Progressive or Interlaced (MBAFF) Horizontal down-sampling of 3/4, 2/3, 1/2

Audio

Analogue Audio Inputs	Balanced stereo pair +10dBu Max input level (up to 66dB gain)
Digital Audio Input	SD/HD-SDI 2 digital stereo pairs
Sample Rate	32kHz, 48kHz
Coding Modes	4 channels stereo or mono MPEG Audio Layer 1 64-448kbps MPEG Audio Layer 2 32-384kbps

Encryption

Type	Proprietary ABS 32bit
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Telemetry

Frequency	403-473MHz
Channel BW	12.5/20/25KHz
Modulation	4PSK, GMSK
RX Sensitivity	-114dBm @ 12.5KHz -111dBm @ 25KHz
Data	19200bps @ 25KHz BW 9600bps @ 12.5KHz

Control

TX	Integrated Controller Joystick Buttons and OLED Screen
Telemetry	Integrated Controller Joystick Buttons and OLED Screen

Power

DC Input	6 to 17V direct from camera battery or DC input
Power Consumption	HD encoding - 9.0W + Camera Head worse case with 100mW RF
Temperature Range	-10 to +50 °C

