RAPTOR

Raptor Eye

COFDM Transmitter with Integrated Camera





The Raptor Eye combines a camera, COFDM video transmitter and camera control in a 59 cm³, 85-gram package for FPV drones, body-worn PoV systems and other space-constrained applications.

It transmits 1080p60 video with H.264 or HEVC encoding and supports SDR and HDR workflows, including HLG2020. It operates at 50 mW in either the 2.0–2.5 GHz or 5.5–6.0 GHz band, with DVB-T COFDM modulation and selectable 8, 7 or 6 MHz bandwidths.

Production features include a UHF return channel for camera control, embedded SDI audio and a microphone input with bias. Remote configuration is available through a USB-C/Bluetooth Web GUI, and the integrated 450 MHz receiver passes serial control commands to the camera.

LIVE APPLICATIONS

- **PoV Sports Coverage**
- **PoV Event Coverage**
- **Body worn applications**
- **Drone applications**

KEY FEATURES

- **Integrated 1080p 60 Camera**
- **Ultra-compact design (82.5 x 43.2 x 17 mm) for PoV body-worn and drone-mounted use**
- **50mW COFDM output for reliable, low-power transmission**
- **Low latency**
- **Control via UHF return path**
- **Local and Remote Control**

CONNECTORS

RF Output	MMCX Female 50 Ω
Data Transceiver	SMMCX Female 50Ω
Video/SDI Input	Integrated Camera
Remote Control	Bluetooth USB-C
Software Update	USB-C
Camera Control	Integrated
Power Input	USB-C

RF

Frequency (COFDM)	2.0 – 2.5 GHz 5.5 – 6.0 GHz Licensable
Output Power	50mW
Frequency Data CC	450 – 480 MHz 902 – 928 MHz
Protocol	Raptor DTX

MODULATION

Type	DVB-T
Bandwidth	6/7/8 MHz
Guard Interval	1/32, 1/16, 1/8, 1/4
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Constellation	QPSK, 16 QAM, 64 QAM
Bitrate	18Mbps Maximum

VIDEO

Video Input	Integrated Camera
Video Formats	1080p 60, PoV 80°
Compression	HEVC. H.264
Coding Mode	High Profile 4:2:0
Latency	<120Ms Low 300 - 400mS Standard

AUDIO

SDI Embedded	Mic, Mic + Bias
Compression Type	MPEG 1 Layer 1

CONTROL

Local	Front Panel OLED, Rotary
Remote	Web GUI via Bluetooth or USB-C

PHYSICAL

Dimensions (L x W x H)	3.25 x 1.7 x .67 inches 82.5 x 43 x 17 mm
Weight	3 ounces 85 grams

POWER

DC Input	5.2-19 VDC
Power Consumption	< 7W

ENVIRONMENT

Temperature Range	14 - 122° Fahrenheit -10 - 50° Celsius

PRODUCT CODES

RPT-EYE	Raptor Eye Ultra Miniature HEVC HD TX with integrated camera, frequency bands licensable (Includes one Frequency License) With optional camera control
RPT-EYE-BLP	Raptor Eye Belt Pack with 2 Sony NP-FZ100 Batteries and Charger
RPT-LIC-200250	2.0 – 2.5 GHz License
LIC-RPT-550600	5.5 – 6.0 GHz License
LIC-RPT-CC	Camera Control License
RPT-DTX-450480	Data Transmitter 450 – 480 MHz
RPT-DTX-902928	Data Transmitter 902 – 928 MHz

Raptor Eye Connector View