

COFDM Series

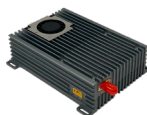
Long DistanceHD Video Transmission

COFDM series long-distance HD video transmission radio is our company's development and production of long distance, low delay, unidirectional high-definition video transmission and bidirectional high-speed data transmission radio for the demand of Long-distance video transmission. The radio uses advanced SCFDE broadband modulation and demodulation and LDPC error correction codec technology, significantly improve the transmission distance and image quality of the radio, suitable for non-line-of-sight and high-speed mobile transmission, the airborne transmitter adopts a compact and portable heat dissipation structure design, which is convenient for the installation and use of drones. The airborne transmitter has a built-in 1 watt/5 watt linear power amplifier with a flying altitude of more than 100 meters, and can transmit 20 kilometers/50 kilometers or more distance without obstruction.

The COFDM series long-distance HD video transmission radio, it is very suitable for reconnaissance, public security / fire protection / traffic / emergency rescue, customs border defense / maritime surveillance inspection, real-time broadcast / on-site monitoring, power line inspection / pipeline inspection, plant protection and other drones and unmanned aerial vehicles, industrial and commercial unmanned aerial vehicles Aircraft, high-end consumer drones, it is suitable for high-quality real-time mobile video transmission in complex environments such as urban areas, seas, and mountains.

Long-distance HD video transmission Product characteristics

- Long-distance transmission: 1w/5w radio, with a visible distance of 20 kilometers /50 kilometers
- Super anti-multipath ability, used in complex operating environment, support high-speed movement. (More than 600 kilometers per hour)
- Broadcasting level / surveillance level HD video encoding: HDMI/HD-SDI/CVBS adaptive,4K/1080P/1080i/720P/576P adaptive
- Bandwidth 2/4/8MHz adjustable: multi-bandwidth, multi-bit rate, multi-mode
- Multiple encryption to avoid illegal reception
- Small modular design: small size, light weight, easy to integrate and use
- Low power consumption, low heat
- Built-in bidirectional data transmission module: 410-480/840-845/902-928MHz, 3.6-19.2kbps conventional/19.2-230.4kbps frequency hopping, 1-2w, TTL/232/485/422, 3.3-30VDC



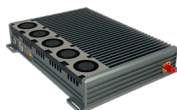
HDMI

1W: more than 20 kilometers
COFDM series-1WT transmitter
(10.8x8.2x2.8cm, 233g)



HDMI

5W: more than 50 kilometers
COFDM series-5WT transmitter
(10.8x9.0x2.8cm,289g)



HDMI

10W: more than 50 kilometers
COFDM series-10WT transmitter
(19.6x14.6x3.4cm,990g)



COFDM series-0WR receiver
(13.6x11.7x3.4cm,425g)



3 W: COFDM Ground low delay
CVBS transmitter above 3 km
(6.7x4.8x2.3cm,80g)

COFDM Series

Long Distance HD Video Transmission Technical Specifications

Operating Frequency	300-350MHz or 560-610MHz (200MHz-2.7GHz can be customized)
Transmitting Power	1W/5/10W
Receiving Sensitivity	-106dBm@2MHz
Modulation Coding	QPSK/16QAM/64QAM
Rf Bandwidth	2-8MHz adjustable
Transmission Stream	2-20Mbps adaptive
Forward Error Correction	1/2、2/3、3/4、7/8
Protection Interval	1/4、1/8、1/16、1/32
Carrier Number	2K
Power Flatness	Less than 0.2db in 10MHz band
Shoulder Ratio	When the output power is 27 dB, the band to shoulder ratio is better than - 30 dB
Second Harmonic	≤ -65dB
Mer	32dB
Transmission Distance	1w: above 20km, 5W: above 50km, 10W: above 100km (sight distance)
Video Input	HDMI/SDI/CVBS:720x480 60I(NTSC)、720x576 50I(PAL)、720 50P、720 60P、1080 50I、1080 60I、1080 24P、1080 50P、1080 60P(CVBS video input N/P adaptive)
Video Output	HDMI / RJ45 IP simultaneous output
Video Stream	2-20Mbps(H.264/H.265)
Video Input Interface	HDMI/CVBS (Low latency)
Video Output Interface	HDMI
Video Coding Format	H264+(HDMI)/H.265 (CVBS)
System Delay	Less than 180ms(CVBS end-to-end low latency less than 120ms)
Video Delay	Less than 250ms
Encryption Method	128 bit AES encryption
Protection Standard	All aluminum radiator shell, anti rust, shockproof design
Operating Temperature/Voltage	-30℃ ~+70℃、11-16V
Operating Current	1W/Receive/5 W/10W/CVNS 3W Receive: 1.3A/0.35A/2.8A/5.9A/1.7A@12V)
Overall Dimension	1W/Receive/5W/10W/CVBS3W Repeat: 10.8x8.2x2.8/13.6x11.7x3.4/10.8x9.0x2.8/19.6x14.6x3.4/6.7x4.8x2.3cm
Weight	1W/Receive/5W/10W/CVBS3W Repeat: 233g/425g/289g/990g/80g
Control Interface	Standard RS232 interface, 8-bit data bit, 1-bit stop bit, even-check, baud rate: 19200
Transparent Data Interface	A unidirectional transparent serial port transmission, 8 data bits, 1 stop bit, support odd check, even check, wireless check, baud rate: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400
Built-In Bidirectional Data Transmission Module	410-480/840-845/902-928MHz, 3.6-19.2kbps conventional/ 19.2-230.4kbps frequency hopping, 1-2W, TTL/232/485/422, 3.3-30VDC
Power Consumption	≤ 15W (1W radio), ≤ 35W (5W radio)

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