

Video Portable Transmitter and Receiver with two way audio

1.1 Outline

The Video portable transmitter and receiver with two-way audio adopt the advanced modulation technology COFDM and the channel codes. It combines with digital image compression MPEG2/MPEG4/H.264 multimedia network transmission technology. Besides, it adopts the MPEG-2 video & audio compressed mode, and 2M and 8M bandwidth. This transmission system has the function of non-sight transmission, diffraction and penetration, and it can realize the image transmission and the bi-directional audio communication. This transmission system has the function of non-sight transmission, diffraction and penetration, and it can realize the image transmission and the bi-directional audio communication. This device is widely applied in fields such as Public security, armed police and so on.

1.2 Features:

- Supports COFDM modulation mode
- The resolutions are: 720*576 25 frames/s, 1920*1080i 25 frames/s, 1920*1080i 30 frames/s, 1280*720p 50 frames/s, and 1280*720p 60 frames/s
- The transmitting distance can reach 1-3 kilometers.
- Supports one video and two audio transmission
- Supports MER ≥ 22 dB
- Supports close-distance and moving(non-vision distance) real-time AV signal transmission
- It can cooperate with satellite image car as a repeater.

1.3 Specifications

Transmitter Appearance and Illustration:

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Feature:

- Users can quickly switch the power; and the device has wide voltage range, high efficiency and low power consumption.
- The device adopts aluminum milled parts as that it has good shield performance, excellent heat dispersion and high reliability.
- The device is so small and light that the operation is easy and simple

Specifications

RF parameter	
Transmitting power	≥1W (port number power)
Transmitting frequency	308MH~860MHz (5 reserved frequency for choosing)
Bandwidth	8 MHz/2MHz

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Output impedance	50Ω
Inter-band ratio	≥25dB
Output port	N-L16 (negative)
Digital modulation parameter	
Modulation mode	COFDM
Correcting mode	LDPC
MER	≥22dB
BER	≤10 ⁻⁸
AV input encoding parameter	
Video	CVBS combined video signal
Audio input port	BNC (negative)
Audio	left/right channel, non-balanced analog, stereo
Image definition	720*576/1920*1080p
AV data formatting	H.264,MPEG-2
Miscellaneous	
MTBF	≥10000hrs
Working voltage	DC10V~16V(camera exclusive battery)
Environmental condition	storage temperature -40℃~+70℃
	work temperature: -20℃~+50℃
	relative temperature 85%(non-condensing)
Power Consumption	About 13W (without SDI port)
	About 15W (with SDI port)
Volume	180×110×88(mm)
Weight	2Kg (total aluminum milled parts)

Mobile Digital Receiver

Features:

- The input port adopts such low-noise amplifier that the receiving sensitivity is high.
- Supports A/V、ASI and S port output.
- It uses 19 inch standard chassis which with sturdy construction and fine shape.

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- Supports two kinds of power supply, namely, DC10V-16V and AC90W-250 V, so users can use it flexible.

Specifications:

RF parameter	
Receiving frequency	308MHz-860MHz (5 reserved frequency for choosing)
Bandwidth	8MHz/2MHz
Input impedance	50Ω
Input port	N-L16 (negative)
Receiving restriction	20dBμV~103dBμV
A/V parameter	
Audio output	CVBS
Modulation mode	COFDM
Image definition	720*576; 1920*1080
Data formatting	MPEG- II /H.264 self-adaption
BER	≤10 ⁻⁸
Audio output	Unbalanced channel
Audio output port	BNC (negative)
TS output port	BNC (negative)
Specialized Audio frequency	450MHz
Specialized Audio Adjustable Frequency Point	15 Adjustable Frequency Points
Miscellaneous	
MTBF	≥10000hrs
Working voltage	DC 10V~16V, AC 90V~250V
Feed voltage	DC 10V~16V
Power dissipation	12W
Volume	19"1U 483×400×44(mm)
Weight	2Kg

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Two way Audio parameter	
Working Frequency Range	400-470MHz
Channel Spacing	25KHz
Frequency Stability Ratio	2.5PPM
Modulation Mode	FM
Modulation Pre-distortion	<5%
Consumption Suppression	60dBc@25KHz
Spurious Emission	-36dBm (<1GHz): 30dBm (<1GHz)
Emission Consumption	1W/4W
Receiving Sensitivity	0.25uV
Antenna Impedance	50Ω
Audio Output Consumption	1W