



TY-13005M
VHF (300-350MHz) Band Broadcast Mobile
Point to Point Transmitter

Technical Specification
V3.01

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Overview



Outline

Thanks for your interested in our products.

TY-13005M is our latest mobile digital transmitters. It works on VHF band (300MHz~350MHz). It adopts all-in-one design, only one cabinet realizes the function of modulation, encoding and transmission. It can transmit AV, HDMI interface and apply for various modulation modes (COFDM, DVB-T/T2) can meet with different users. Its LCD indicator can show the main parameters to monitor signals real-time. It applies high linear and high gain LDMOS power amplifier module, ensure the real time SD (HD optional) TV or radio signals to broadcast high-fidelity by control centers. Now, for its outstanding point to point transmission feature, it is widely used in Vehicle Monitoring System(IVMS), aeronautic monitoring, security system, conference. Also can used in press live broadcasting by television stations, radio stations and news agencies.

Features

- With superlinear design of power amplifier, transmitting power has been increased and unlinear distortion has been effectively decreased.
- With AGC to maintain a constant output power, keep the stable and reliable operation.
- With convenient integrated design for operation, maintenance, installation and carrying.
- With simple debugging procedure, signal opening can be achieved without specialized instruments.
- LCD indicates main alarm and monitoring signal.
- All alloy material with robust structure design.

Technical Specification

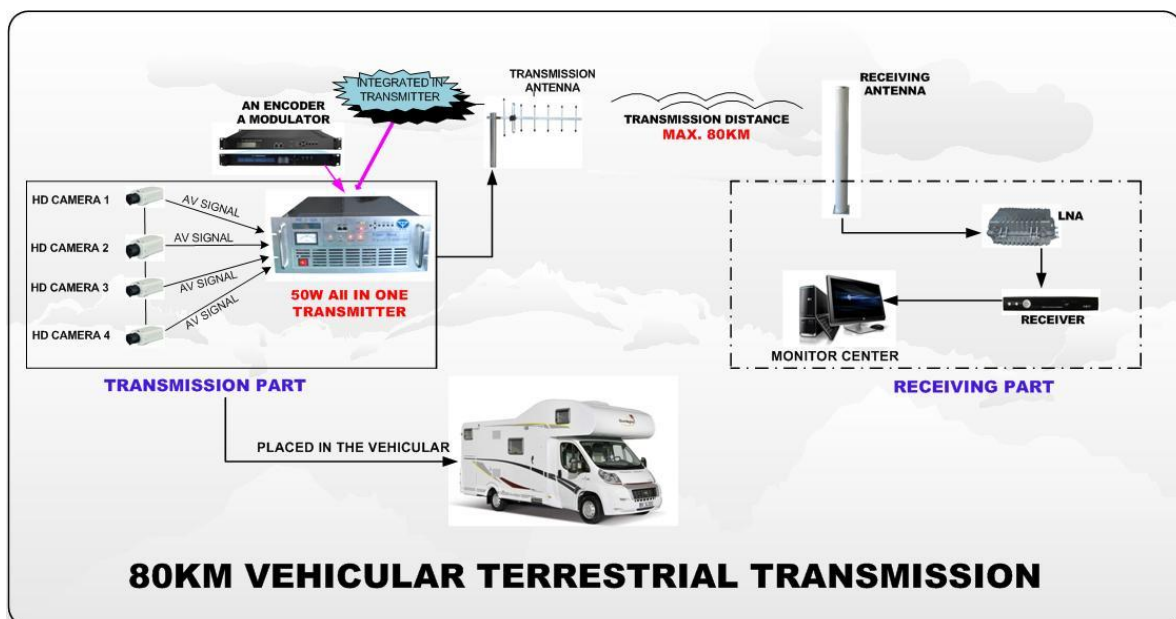
Model	TY-13005M
RF Output Frequency	300~350MHz (frequency band carrier signal takes could be set arbitrarily)
Output Power	5W(5W~50W optional or customized)
Bandwidth	adapted to the single-band 6MHz/7MHz/8MHz
Modulation Mode	COFDM,DVB-T,DVB-T2
Shoulder Ratio	≥40dBc(COFDM)
RF Output Interface	50Ω/N connector
	Return Loss: 20dB
RF Frequency Response	Any Within 10MHz: ≤1.0dB
Group Delay Characteristics	≤40nsec
IF Input Level	-55~-10dBm
Video Input / Output	Composite video:SDI
Audio Input / Output	Composite audio:AES/EBU
In-band Spur Restraint	-60dBc(relative digital signal level)
Automatic Level Control	≥20dB
Gain Modulation Error	Gain Control: 0~20dB,error≤±0.5dB
	Gain Control: 20~31dB,error≤±0.75dB
Gain Control Range	0~31dB, 1.0dB stepping
Transmitting antenna	Yagi or omnidirectional antenna suction cup

Receiving antenna	Yagi or Fiberglass Omni whip antenna
LNA	Yes, Inside or outside the feed fed Optional, gain $G > 20\text{dB}$
Environmental Conditions	Working Temperature Range: $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$
	Humidity: no condensation
	Relative Humidity: 0~95% nonsaturatindiion
Air transport box	Need to Customized
Working Voltage	AC $220\text{V} \pm 10\%$, 50/60Hz Power Consumption: depending on power levels
Weight(Kg)	About 25Kg
Dimensions(L*W*H)	19", 2U~6U
Control Panel	indicator apparatus or LCD screen panel

Typical Project:

80Km Point to Point Wireless Vehicular Transmission System

Equipments List	Specifications	Quantity
An encoder	HD or SD	1
One modulator	DVB-T	
One transmitter	300-350MHz	
One LNA	NF $< 1.5\text{dB}$, Gain $> 25\text{dB}$	1
One Transmission Antenna	Yagi or omnidirectional antenna	1
One Receiving Antenns	Yagi or Fiberglass Omni whip antenna	1
One Receiver	Frequency: 300-350MHz	1



TYE Series Transmitters

Item	Product name	Frequency Range	Output Power	System
1	VHF Analog TV Transmitter	170MHz-230MHz	20W-2KW	PAL/NTSC/SECAM
2	VHF Digital TV Transmitter	170MHz-230MHz	5W-300W	DVB-T/T2/S/S2/C,QAM
3	VHF Live/Mobile Transmitter	300MHz-350MHz	5W-30W	Point to point transmission
4	UHF Analog TV Transmitter	470Mhz-860MHz	20W-2KW	PAL/NTSC/SECAM
5	UHF Digital TV Transmitter	470Mhz-860MHz	10W-1KW	DVB-T/T2/S/S2/C,QAM
6	L Band TV Transmitter	1.3GHz-1.5GHz	20W-50W	DVB-T/T2/S/S2/C,QAM Point to point transmission
7	S Band (MMDS) Digital TV Transmitter	2.0GHz-2.9GHz	10W-500W	DVB-T/T2/S/S2/C,QAM, Point to point transmission , PAL/NTSC/SECAM(Analog signal)
8	8GHz TV Transmission Module Set	7.8GHz-8.3GHz	500mW-2W	DVB-S/S2(8PSK/QPSK) Point to point transmission
9	Ku Band (MVDS) TV Transmitter	10.7GHz-12.0GHz	200mW-24 W	DVB-S/S2(8PSK/QPSK) Point to point transmission