
2W Wireless Mobile Video Transmitter
(ST6000TKMD)
User Manual

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1 Features

- Low system latency
 - COFDM modulation, Stable transmission
 - MPEG-2 video compression, DVD video quality
 - Lithium battery for power supply
 - Mobile and NLOS(Non line-of-sight) transmission
 - Modular design, compact structure, small cubage
 - Several wavebands available: VHF/L/ S
 - Strong casing with built-in cooling plates, waterproof and shockproof
 - In LOS (line-of-sight) environment, the transmission range is up to 20 to 50km

2 Packing List

- 1 X transmitter
- 1 X user manual
- 1 X transmitting antenna (optional)
- 1 X AV line
- 1 X BNC connector
- 1 X L16-UHF connector
- 1 X DC12V 4.2A charger
- 1 X Lithium battery (rechargeable)
- 1 X Lithium battery charger

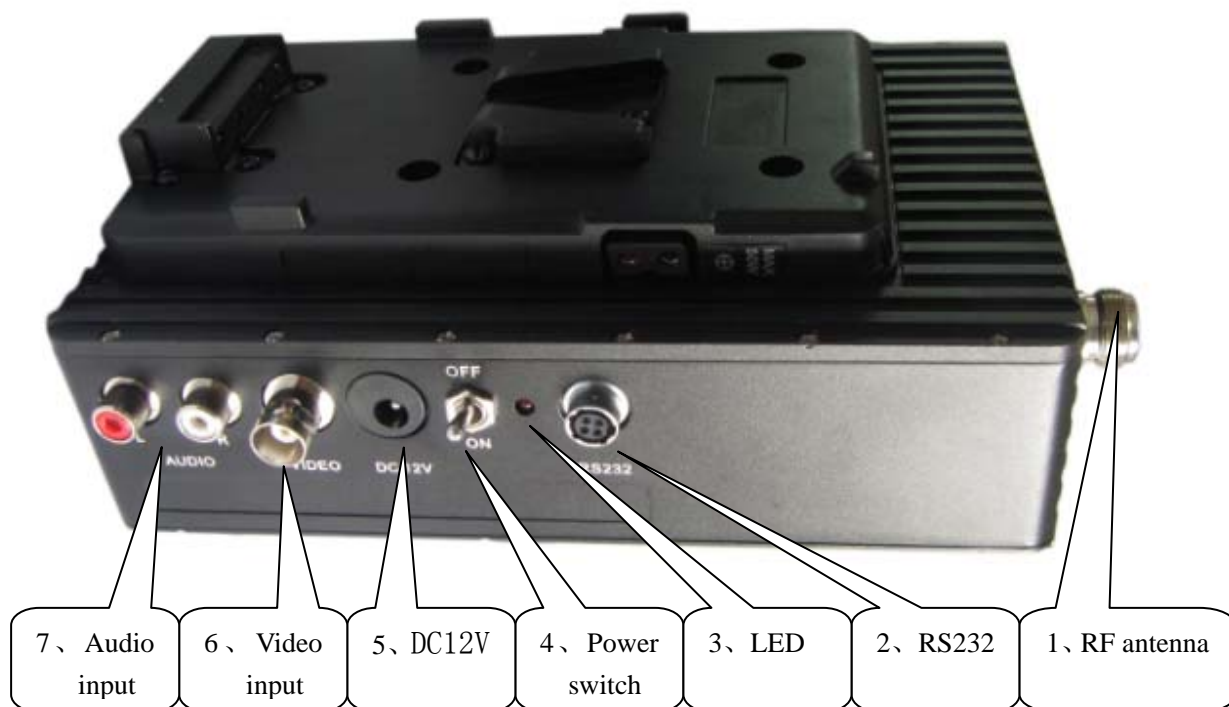
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3 Panel and interfaces



- 1、 RF antenna: According to the frequency, please use the suitable antenna;
- 2、 RS232:Ctrl
- 3、 LED panel: The LED panel can display the working frequency. For more details please refer to chapter 7.
- 4、 Power switch: User can use the power switch to turn on/off the power.
- 5、 Power interface for DC12V 2.0A
- 6、 Video input
- 7、 Audio input: the red one for right audio input and the white one for left audio input

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4 Transmitter profile and accessories

4. 1 Transmitter profile



4. 2 Rechargeable Lithium battery

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4. 3 Lithium battery charger (adapter)



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6 Installation

6. 1 Be sure the power switch is at the “off” side;
6. 2 Fix the RF antenna. Connect the antenna on the interface of RF out;
6. 3 Connect the AV line to the video input and audio input;
6. 4 Clip the Lithium battery to the transmitter; or connect the power adapter(DC12V, 2.0A)to the interface;
6. 5 Set the power switch to the “on” side.
6. 6 After set the power switch to “on” side, the LED will display the default frequency of the transmitter.
6. 7 Connect the receiving antenna to the receiver; Use the AV line to connect the AV output to the monitor; Electrify the receiver and set the same frequency as that of the transmitter; If finished above operations, user can see the picture on the monitor.

7 Frequency setting

Users can press the buttons under the LED to set the frequency.

System frequency display: power at the beginning, the system is initialized state. Begun to stabilize the system initialization is completed and other work, the LCD displays the work of the frequency stability of the system (the last used frequency)



Shows the initial state



Normal operation status display

System frequency adjustment (steps of 1MHz)

First, click the menu button (menu), the LCD screen will display a beating in front of the black spots, and then press the Enter key (ok), then press the arrow keys to adjust the frequency until the frequency setting finished, press the Enter key to lock the frequency , Press the arrow keys to select the menu "RESET" directory, press the Enter key twice (ok) you can restart the last key to exit the settings menu, the rest of the parameters the same order and frequency settings



Frequency setting display



Note: Because the transmitter power amplifier's bandwidth limitations, so under normal circumstances, at the transmitter frequency range marked on the label within the adjustment.

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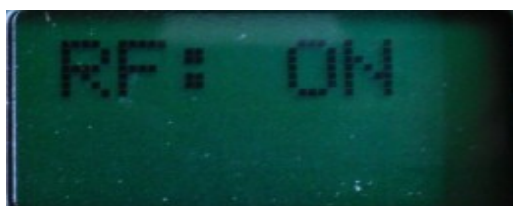
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Reset Display

Description: Change the internal parameters of the transmitter, you must not take effect until the reset.



RF output switch



Description: RF input is set to "OFF" state, the transmitter will not work.



Channel bandwidth setting

Description: When the channel bandwidth is set to "2M", the FEC must be set to 2 / 3 code rate without changes, must be a 16QAM modulation mapping or 64QAM, the setting for the "4M" and "8M" when FEC is set to 1 / 2



FEC settings

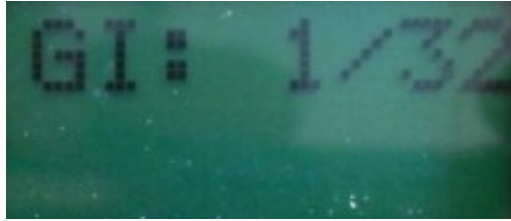
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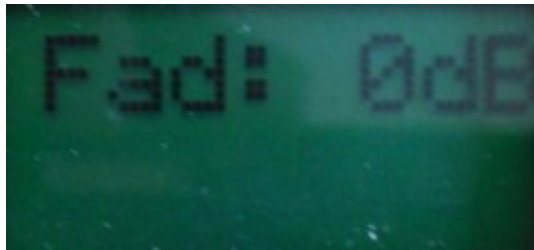
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Transmission rate setting



Protection interval



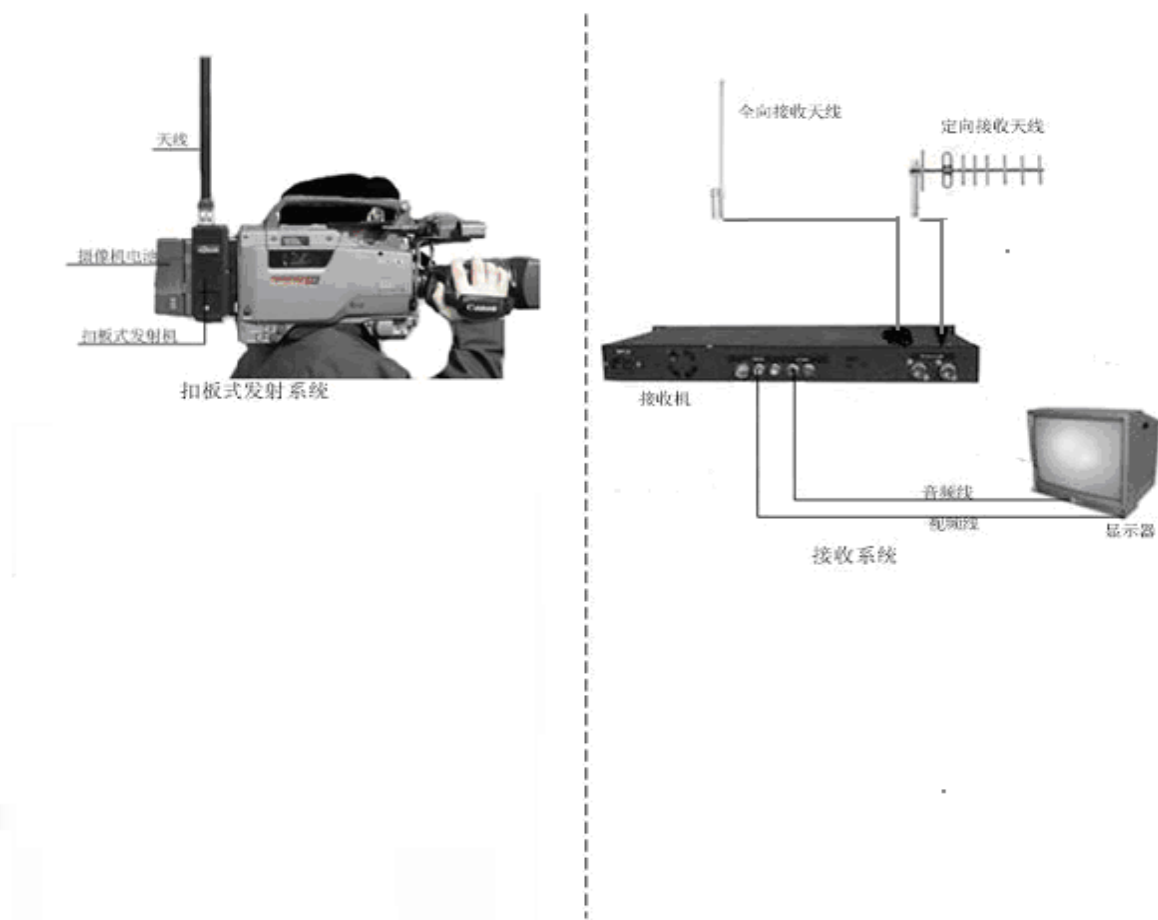
Output attenuation settings



Reset the display after reboot

8 System connection

Application :



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9 Transmitter specifications

1	Working voltage	DC12.5V~DC15.5V	
2	Working current	≤2.A@DC14.8V	
3	modulation	COFDM	
4	constellation	QPSK, 16QAM, 64QAM (optional)	
5	FEC	1/2, 2/3, 3/4, 5/6,7/8(optional)	
6	Guard interval	1/32, 1/16, 1/8, 1/4(optional)	
7	Carrier	2K	
8	bandwidth	2/4/8MHz	
9	Frequency	510MHz-530MHz	
10	Power output	28.5dBm~32.5 dBm	
11	Video input	1Vp-p@75Ω, PAL	NTSC can be customized
12	Audio input	80mV~2300mV	
13	Video coding	ISO/IEC138182 (MPEG2 video)MP@ML	
14	resolution	720x576	

10 Faults Check

Faults	Resolution
No video or no audio on monitor	<ol style="list-style-type: none"> 1. Check whether receiver power supply connection is ok 2. Check all the cable connection and antenna connection to see whether connector is loose or water comes in. 3. Check whether the transmitter is in the RF coverage. 4. Check whether the transmitter works well. 5. Check whether the power amplifier works well. 6. Check whether there is signal interference of the same frequency.
No video output , but the audio is normal on receiver side	Check the video cable connected to the monitor and video camera
No audio and noise, but video is normal	<ol style="list-style-type: none"> 1. Check the connection of the audio cable 2. Check whether there is audio output from receiver. 3. check whether there is audio pickup device on the transmitter end (example, microphone)
Video is continuous, then there is intermission, black screen and then it is normal.	<ol style="list-style-type: none"> 1. It is normal if the signal is not very good. 2. Check whether there is interphone or broadcasting station around.
Video becomes black, and sometimes there is flashing cross striation on	<ol style="list-style-type: none"> 1. Check the video cable connection with transmitter and video camera. 2. Check shielded cable of video output cable

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the screen	
There is green or colorful color lump.	Transmitter video connector is loose. Fix it firmly.
Transmitting coverage suddenly reduces.	<ol style="list-style-type: none"> 1. Check whether the transmitter module works well. 2. Check whether the Tx and Rx antenna are well connected. 3. Check whether the polarization direction of the transmitting antenna is consistent with that of the receiver. 4. Check the transmitter battery and switch voltage. 5. Check whether the power amplifier works well. 6. Check whether there is signal interference of the same frequency around.
During fixed-point transmission, repeated black screen appears.	It is due to environment changes. It is normal.
The covering range is small, and transmitting distance is short.	Check the receiving antenna, and fix the antenna as high as possible.
There is video and audio, but video is blurry.	Check whether video camera focus is correct.