



Model AV-100-MICRO/UTP

v1.1

5.8GHz Wireless sender for Audio / Video

AV-100-MICRO/UTP is radio transmission system designed to transmit analog Video (composite CVBS) and two independent audio signals in external conditions. The device uses one of seven available radio channels (5470MHz ~ 5860MHz). Digital PLL generates high frequency, providing excellent work stability and high resistance to radio interference from adjacent frequencies.

Set comes in case with miniature omnidirectional antenna and RJ-45 connectors for AV signals and power supply. Transmitter and receiver have built-in Video Balun to transmit Video signal by UTP twisted pair.

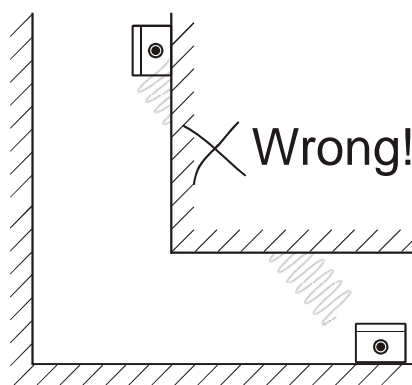
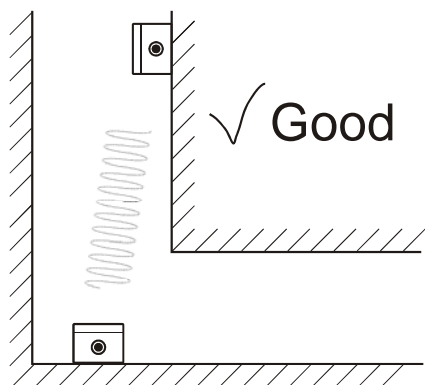
System can be used on professional CCTV installations to transmit Audio and Video from cameras, to presentation solutions, Audio/Video solutions in home and hobby.

Audio Video signal are transmit in real-time without compression and delays. It's important to choose right place for installation and precisely align antennas.

Place of installation.

5.8GHz frequency provides high quality Video and protection from radio interferences, but it has defects just like devices using microwave frequencies (for example satellite antenna).

1. Antennas in devices needs to be accurately aligned relative to each other.
2. All solids, also the wood and leaves of trees attenuates microwaves
3. Antennas of sets need to be visible and the field of view needs to be clean at 3 meters from center of antenna (6m diameter)

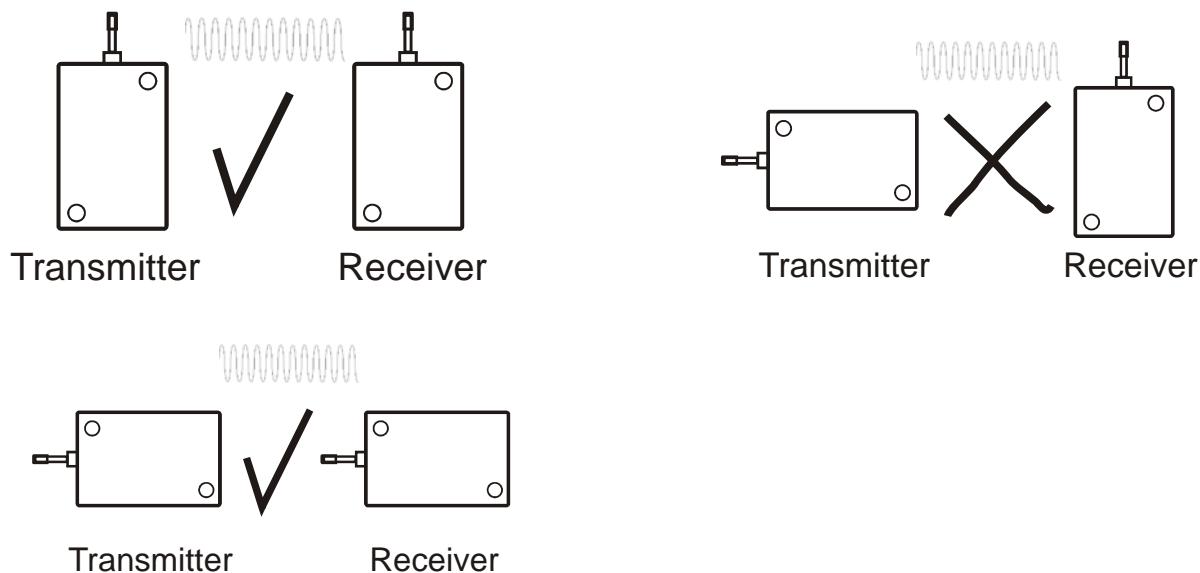


In some areas the signal can be sent to you after reflection from the wall, but this does not guarantee stability and sufficient signal strength.

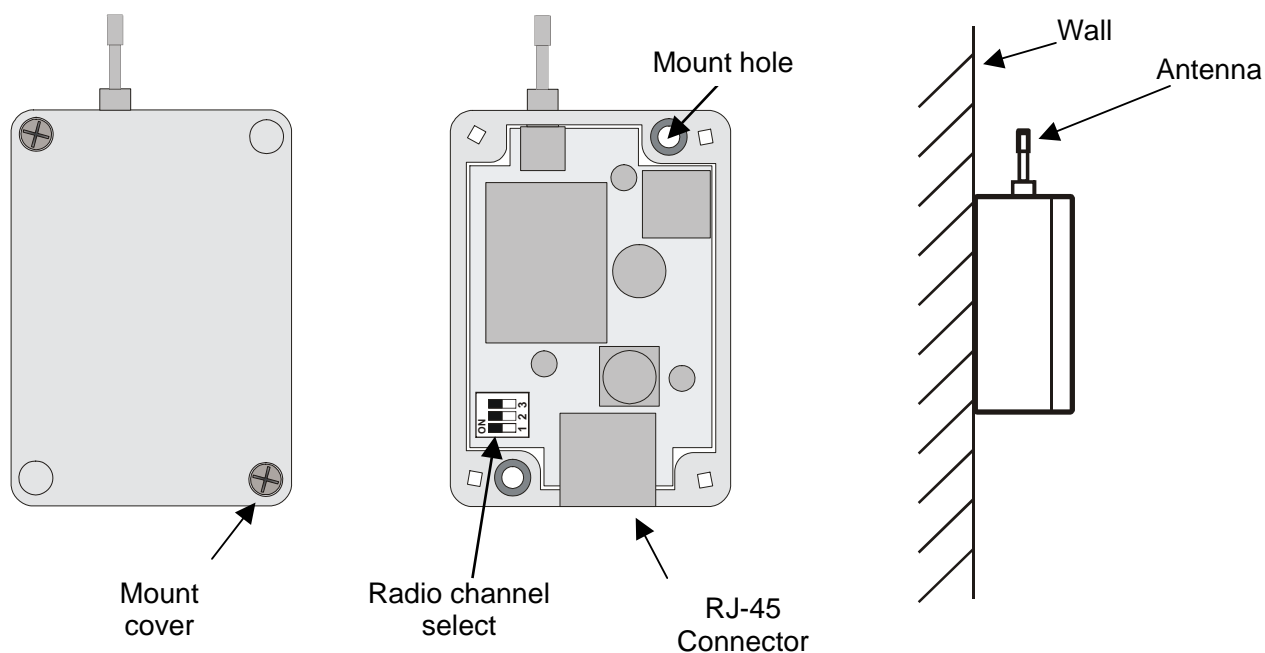
Installation of the device

Design AV-100-MICRO/UTP is designed for mounting on walls of buildings. The device can be mounted vertically or horizontally, however it should be borne in mind that the transmitter and receiver must be in the same position.

We do not recommend installing the unit on walls or metal structures. Interference resulting bouncing radio waves can completely affect range of device.

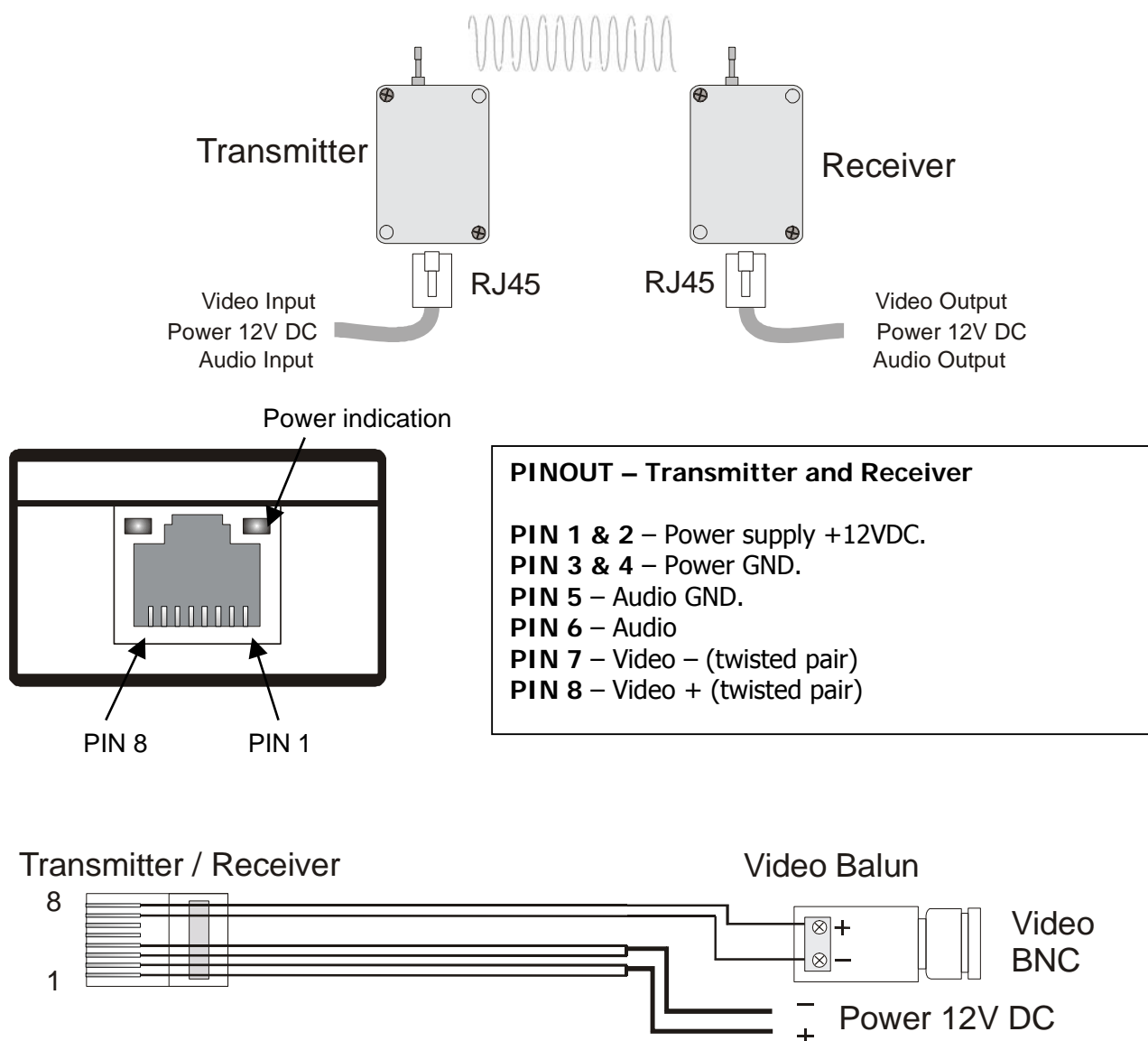


The transmitter and receiver must be mounted on a stable base, in a place not exposed to high temperatures and humidity. To install, you need unscrew the screws of the front cover and use mount holes placed bottom part of housing. Fixing must be done using dowels to the size of the holes properly selected housing.



The wiring

The transmitter and receiver have the RJ-45 Connector, used to connect all signals and power.



Connection Video.

For connection, use the twisted pair cable UTP and external UTP video balun. Should not be used coaxial cable - for coaxial cable should be used set AV-100-Micro. You can also use active devices for Video transmission via twisted-pair. The connection of the transmitter and receiver are the same.

Connect the Audio.

To connect the Audio signal you must use shielded Audio cable, connect it as close as possible to the device / host to avoid mains hum.

The power connection.

For the connection to be used pins 1 and 2 (plus power), and 3 and 4 (minus power). For power, use a good quality power supply in order to avoid disturbances in picture and sound. It is also acceptable power from battery.

All connections must be made with disconnected power supply.

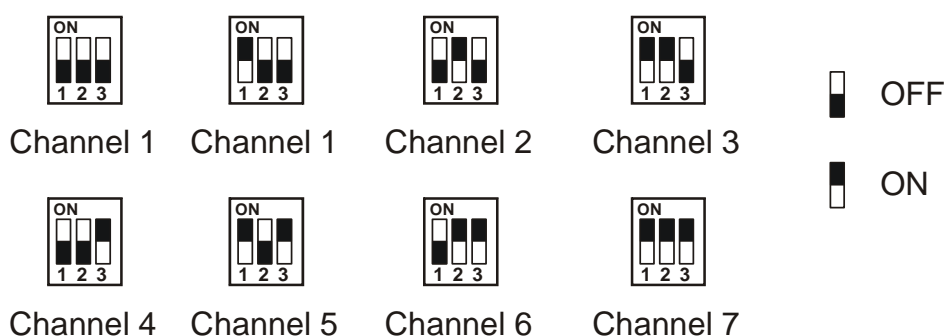
Device adjustment

Set doesn't need special knowledge and expensive tools for installing. The most important is proper positioning of transmitter and receiver according to recommendations of instructions and aligned relative antennas to each other. System in MICRO version hasn't radio measurement function and installer can verify antennas setting only optically. When the antenna isn't set exactly and the weather conditions are unfavourable (snowstorm, fog, heavy rain) may appear deterioration of image quality and will be necessary correcting antenna settings.

Before connecting power, you must set the channel number of the radio. Dipswitch on the transmitter and receiver is used to this. Adhere to the following instructions



1. Radio channel must be set the same in transmitter and receiver.
2. When we are dealing with sets work in immediate vicinity or in close proximity to transmitter and receiver, channels must be set every second one.
3. The channel number is selected according to the following drawings.



Technical specification:

No.	Parametr	Value
1	Video channels	UTP twisted pair: 1 x 100 Ω
2	Audio channels	1 x 2Vp-p
3	Radio channels	Channel 1 : 5470MHz, Channel 2 : 5760MHz, Channel 3 : 5780MHz, Channel 4 : 5800MHz. Channel 5 : 5820MHz, Channel 6 : 5840MHz. Channel 7 : 5860MHz
4	Antenna	Omnidirectional, miniature
5	Receiver sensitivity	-80dB
6	Transmitter power	25mW, 14dBm
7	Deviations for Video channel (at 10kHz)	4MHz
8	Frequency control	Synthesis PLL
9	Work temperature	-20°C ~ 40°C
10	Hermetic class	IP45
11	A/V Modulation	FM
12	Bandwidth for Video	50Hz ~ 5,5MHz
13	Bandwidth for Audio	50Hz~20kHz
14	Power	9~13,5VDC
15	Current consumption	Transmitter: 300mA @ 12VDC Receiver: 120mA @ 12VDC

Radio devices producer to transmit Video, Audio and data.

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