Model AV-100-MICRO v1.1

5.8GHz Wireless transmission set for Audio / Video

AV-100-MICRO 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 cable with set of connectors.

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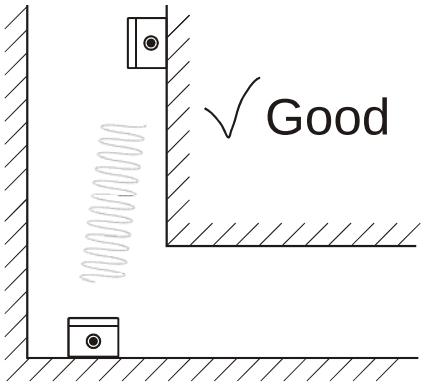
System can be used on professional CCTV installations to transmit Audio and Video from cameras, to presentation, Audio/Video solutions in home and hobby.

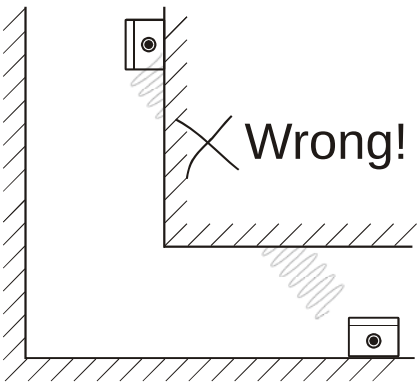
Audio Video signal are transmit in real-time without compression and delays. It's important to choose right place for installation and precisely align antennas.

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)



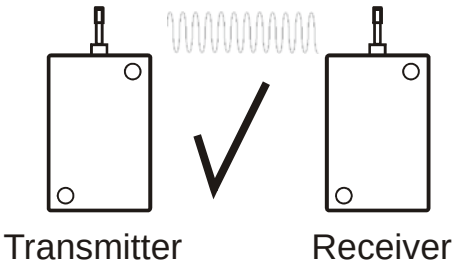


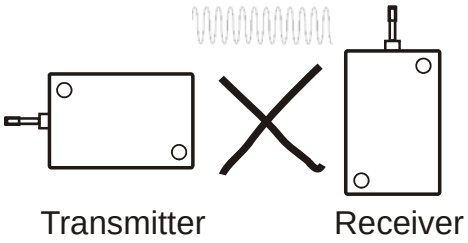
In some areas the signal can be sent to you after reflection from the wall, but this does not guarantee stability and sufficient signal strength.

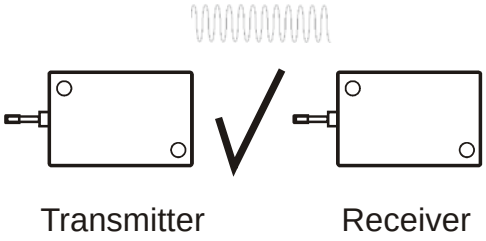
Installation of the device

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.

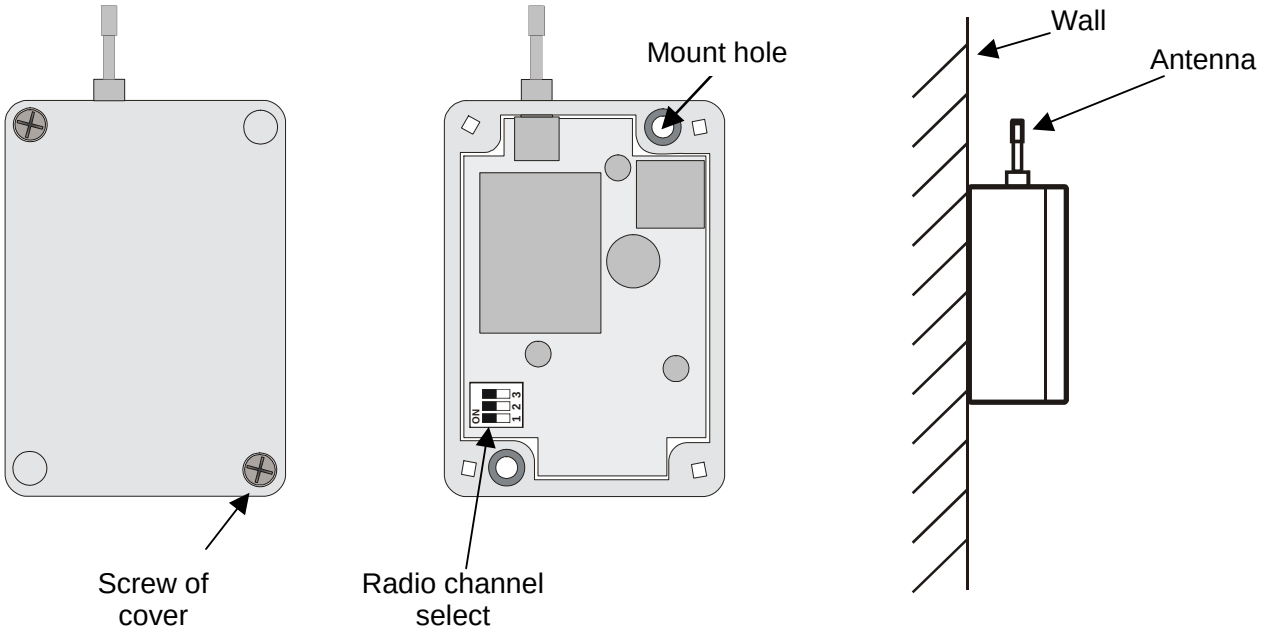
We do not recommend installing the unit on walls or metal structures. Interference resulting bouncing radio waves can completely affect range of device.



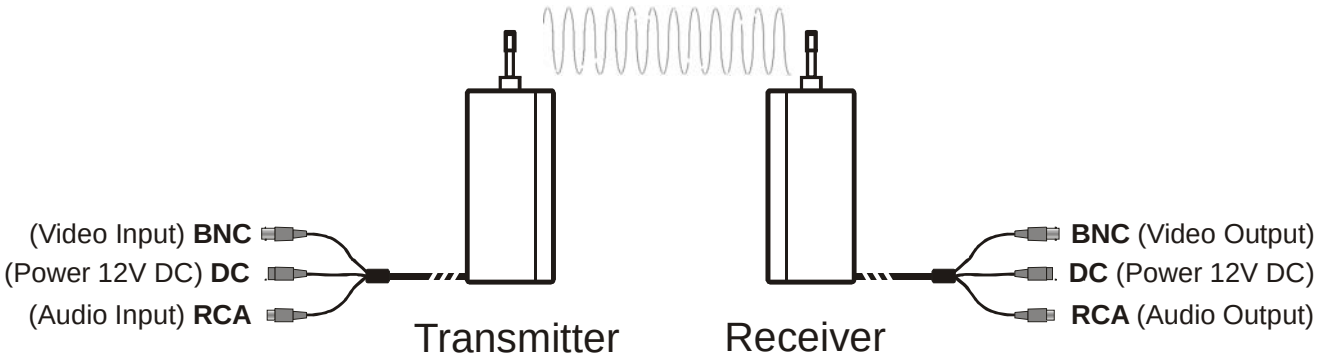




The transmitter and receiver must be mounted on a stable base, in a place not exposed to high temperatures and humidity. To install, you need unscrew the screws of the front cover and use mount holes placed bottom part of housing. Fixing must be done using dowels to the size of the holes properly selected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



The wiring
The transmitter and receiver have the same power wire, signal Video and Audio.

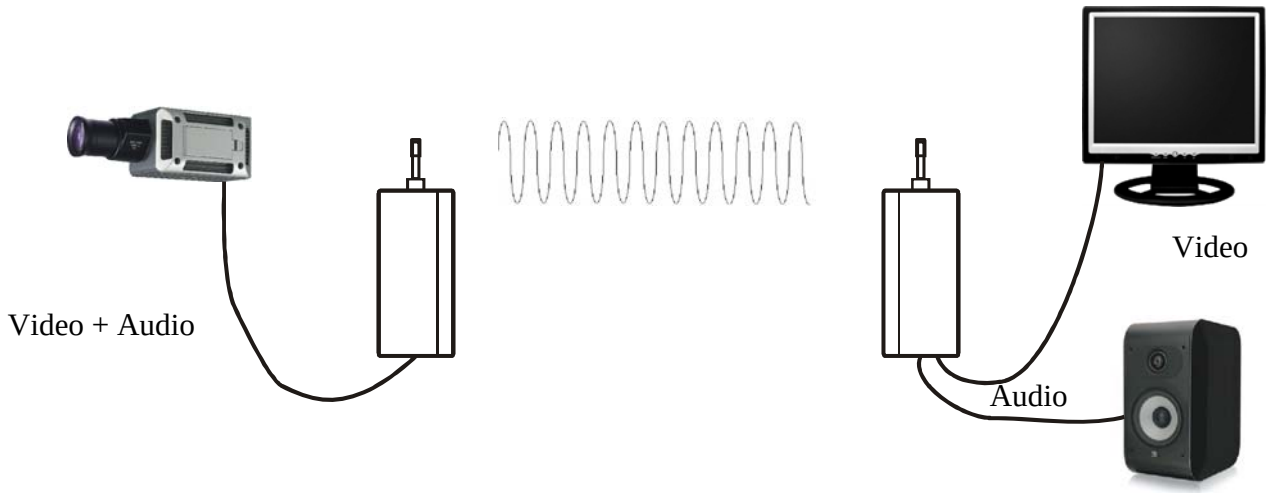


Connection of the Video signal.
To connect you must use coaxial cable 75Ω with a BNC connector. Cameras usually have a BNC female connector. To connect your camera directly to the transmitter, you must use the appropriate adapter, double male BNC plug, or use a short cable is made at the two ends of the male BNC connectors. Depending on the situation, such a decision may be required for receiver.

Connection of the Audio signal.
To connect the Audio signal We suggest use a special shielded cable with RCA connectors. Not to recommend the use of the wires is the same for Video as the mismatch of impedance can lead to loss of signal and generate a humming noises.

The power connection.
The DC is designed to connect a stabilized power supply 12V DC. You can also use battery power 12V. Use a stable power source; poor quality switch mode power supply can generate noise in the image in the form of small dots or overlapping noises.

All connections must be made with the power off of the device.



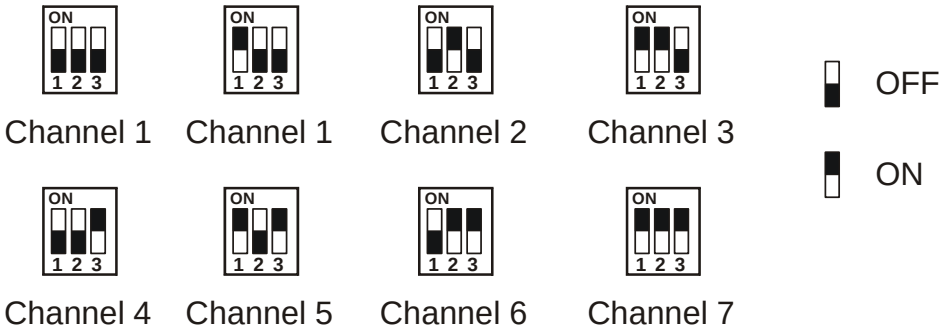
A typical application example for the model AV-100-MICRO

Device adjustment

Set doesn’t need special knowledge and expensive tools for installing. The most important is proper positioning of transmitter and receiver a 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 to 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:

Lp	Parametr	Value
1	**Video channels**	Coaxial cable: 1 x 75Ω 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**	IP65
11	**A/V Modulation**	FM
12	**Bandwith for Video**	50Hz ~ 5,5MHz
13	**Bandwith Range for Audio**	50Hz~20kHz
14	**Power**	9~13,5VDC
15	**Current draw**	Transmitter: 300mA @ 12VDC Receiver: 120mA @ 12VDC

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