

# RW-TCC1

## Camera with integrated digital transmitter

### Product description

RadioEye™ is a closed circuit television system that allows you to see and hear what is happening in an environment without the need for connecting cables. It can be installed in minutes even by inexperienced personnel.

The RW series cameras incorporate a digital transmitter and can be received only with the coupled receiver. The RW series cameras use a brand new digital technology that allows total immunity to interference. The input analog video signal is encoded digitally in the transmitter and sent by radio with FHSS modulation with encrypted encryption to prevent unauthorized reception. For the reception it is necessary to purchase the RE-DRX2 receiver which is delivered already coupled to the camera. In the receiver the signal is again converted into an analogue for

can be connected to a TV, monitor or VCRs.

### Product Composition

The product includes:

- camera with transmitter (RE-DTX2) integrated, omnidirectional antenna
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### The camera

The RW-TCC1 camera is part of the category of cameras in a protected container. They are very practical because cameras can also be installed in harsh and outdoor environments without the need for a protective case. The RW-TCC1 without illuminator is ideal for shooting with natural light even in low light conditions thanks to the use of the Sony Ex View CCD. It is also possible to integrate IR illuminators DSE for a better view for shooting in total darkness thanks to the day / night function.

This camera is controlled by a DSP microprocessor and it is possible to intervene on a number of options by means of a screen OSD menu, opening the waterproof case and the side door camera present in the body and acting on the keys 5

functions in programmable functions inside of. Among the main include the following

- **White balance** - Several options available to make the best shades of white, depending on the type of lighting.
- **Privacy zones** - Allows you to set masking areas to make non-visible areas that you want to exclude from monitoring for the need to protect privacy.
- **Threshold Day / Night** - E 'can program the transition from daytime color vision and IR / W night vision mode.
- **Mirror (Image Rotation)** - E 'can flip the captured image both vertically and horizontally (mirror function) in the case of shooting backwards or upside down with the camera.
- **DNR (Noise Reduction)** - The Digital Noise Reduction is a video noise reduction function. With this feature, especially useful in low light, it cleans the video signal from the

noise and you get a greater uniformity of color.

- **HS BLC (Glare)** - Used in the second half of the vehicles and allows to dim the headlights avoiding car glare and allowing you to keep shooting the surroundings.

### Target

This camera is equipped with connection CS lens focal length 8mm.

The goal is interchangeable with all DSE lenses CS mount. When replacing the lens must open the housing from the rear of the camera then

access body camera, unscrew the aim of series and screw the lens chosen on the front of the camera body. If the lens is of the type AUTOIRIS (fits alone to light) must connect the connector to the camera side outlet. The camera is capable of controlling autoiris DIRECT DRIVE objectives. If you need to bring their own to the connector solder these are the PIN to use:

PIN DIRECT	
1	DAMP - 2
	DAMP + 3
	DRIVE + 4
	DRIVE -

Once the lens is screwed, it is necessary to proceed to the focus adjustment. First, you must adjust the focal distance from the CCD by acting on the lever on the side of the camera to obtain a first making coarse fire. The side lever must be unscrewed about half a turn in order to rotate the ring. Once in a distance that allows an acceptable vision hangs the ring by screwing the pin. At this point it is possible to refine the vision by turning the focus adjustment of the lens to obtain the best focus.

### Camera attachment

With regard to the mechanical mounting of the camera-RW TCC1 model is supplied without bracket and can be combined with any bracket for enclosures, such as our [RE-ST2](#).

### The degree of protection

The camera is enclosed in a custody completely in aluminum and watertight (IP65), which enables the installation even in places totally

exposed to the elements. The housing is also equipped with a fan of the cooling and internal heater that feed at 12VDC and turn on and off by themselves in the presence of too high or too low temperatures. The heater also provides for anti-condensation and prevents fogging of the glass.

### The receiver

The RE-DRX2 receiver, is supplied already coupled to the reference camera. It must only be powered on and connected to the video management device (monitor, DVR, etc.)



#### Installation and wiring

○ In the camera there are 2 connectors, power and video output. The video output can be recognized by the typical bayonet BNC connector and is connected to the monitor or the video controller if you want to use the wired camera without using the radio transmission. To power the camera must be connected to the power plug a 12VDC power supply with a 5.5 mm plug with a central positive, at least 2A as the RE-AL5 model. Attention to use STABILIZED feeders that provide 12V in any load condition. The use of a different supply voltage from 12VDC can generate video disorders and in the worst cases damage the camera.

○ In the back of the receiver are present a power input to be connected to the supplied adapter and a miniplug input to which is connected the

Audio / Video mini-jack / RCA cable that it goes connected to the TV, monitor or video monitor.

The receiver connectors are RCA type male (1xVideo-Yellow + 2xAudio stereo). If the device has to be connected BNC connector, very common in the CCTV, you need a RE-BNCRCA1 adapter.

○ Screw the antenna to the SMA connector screw. The antenna type is omnidirectional and does not require to be oriented.

#### First Turn

After connecting the power, the receiver turns on the POWER LED red, then goes out to switch on only when the two devices are paired and ready for the transmission of images and sounds. Camera and receiver are supplied already paired factory so there is no need any operation because

linking between their. This operation recognition, however, requires several seconds, even up to a minute, during which the LED is turned off and can give the impression that the system is idle. patiently wait for the LED to

rekindle once

carried out the coupling.

If the LED turns on again means that the modules can not communicate with one another, presumably because

places to excessive distance or because of the presence of too many obstacles between antennas.

On the same site you can install up to three cameras each with its own RE-DRX2

#### Pairing button (PAIR)

Camera and receiver communicate with each other in an encrypted way to which they must be coupled together to function properly. However, the **PAIR button on the receiver as a rule should not be used as the two devices are already delivered factory coupled with each other.**

If for reasons of maintenance should be necessary re-pair the devices you need to do the following

- Powering 3-5 meters placing devices.
- Press the PAIR button on the receiver and hold it down until the LED starts flashing. Then release the PAIR button.
- Wait for the completion of pairing without powering down the equipment.
- After the procedure the LED is lit.

#### The transmission range

The RW series of cameras allow a flow rate in free air of about 150 m. The flow value is given in free air, since the presence of obstacles, such as walls or other reduces the flow rate drastically, but in highly variable manner.

E \*can use directional antennas in replacement of standard antennas, to increase to about twice the flow rate of the system.

#### Audio

The RW-TCC1 camera does not have onboard microphone; If required you can use the external **microphone RE-CM2**.

#### Tips

- Locate the camera and receiver in a position as detected possible.
- Position the camera so that the imaginary line joining the two antennas there are less obstacles as possible.

In particular, try to avoid the presence of obstacles very close to the transmitter.

- Avoid the interposition of metal obstacles (eg. Metal gates etc.) as highly shielding.

#### Programming Menu

The camera is equipped with a programming menu screen for advanced features. Open the side door to access the panel, press the button in the center between the arrows to display the on-screen menu.

For instructions on features of the OSD Refer to the separate documentation on the DSP-E SONY EFFIO.

**Main technical data Camera**

	RW-TCC1
Camera Type	hard-wired
Colors / white / black	color day night function
video standards	PAL 2: 1 interlace
CCD Sensor	Sony 1/3 " Super HAD
Number of pixels in the CCD	1020 (L) x596 (H)
horizontal Resolution	With 650 TV lines.
Video Signal Process	Digital - DSP
Video Signal Synchronization	internal
Minimum required illumination for shooting	Color 0.3 Lux B / N 0.0001 Lux
gamma correction	0.45 / 1
Signal / noise ratio (S / N ratio)	Over 50 dB
Automatic Gain Control (AGC)	Yes (programmable level)
Automatic electronic shutter	Automatic or fixed adjustable
iris diaphragm	Compatible with DC DRIVE lenses
Compensation against the light (BLC)	Yes (adjustable level)
Day / Night function (color day / night bn)	Yes (adjustable threshold)
infrared lighting compatible	850 nm
video Output	1V pp composite video 75 Ohms
audio Output	-
built-in ambient microphone	No
the camera power supply	DC 12V
Power consumption	2 W
Power supply 230VAC / 12VDC included	No
Support bracket included	No
Target	No
MIRROR function for image reversal	Horizontal
overlay	ID Camera, Motion
MASK function for privacy protection	4 programmable masks
Motion detection	You - Only display screen
Operating temperature	- 10 ° ... + 50 ° C
External dimensions (mm.)	56 (L) x71 (H) x133 (P)
Weight	480 gr.

**Main technical data transmitter**

Antenna	3dB omni
antenna Attack	type SMA
Frequency	2403 MHz - 2478 MHz
Modulation	16QAM / QPSK / BPSK
Bit rate video	12 Mbps
Transmission power	100 mW
video Resolution	768x576 25 f / sec

## Main technical data receiver

Supply	5VDC (adapter included)
Max consumption.	1.9W
video Output	1 Vp-p 75 Ohm
audio Output	1 Vp-p 600 Ohm stereo
Connectors	3xRCA male
Antenna	3dB omni
aerial Attack	type SMA
Frequency	2403 MHz - 2478 MHz
dimensions	76x73x24 mm.
Temperature	- 10 ° ... + 50 ° C
Weight	82 gr.

