

## **RX C.100 Broadcast**

### **Digital Diversity COFDM Video/Audio Receiver**

# **KERN**



**Portable COFDM  
Receiver with  
Dual  
Digital Diversity**

#### **Main Features:**

- ▶ Digital DVB-T COFDM Receiver for 2.4 GHz ISM Band
- ▶ Digital Diversity for improved Reception in Non-line of Sight and Multipath Applications
- ▶ MPEG-2 Decoding, supporting NTSC and PAL
- ▶ Versatile Connectivity: SDI, CVBS, Y/C, Balanced Audio available
- ▶ Compact and Ruggedized Palm-Size Design Ideal for Mobile Applications
- ▶ Separate Down-Converters/RF-Amplifiers for Optimal Reception
- ▶ Easy to use. Intuitive OSD Menu. Plug and Play
- ▶ Optimal Combination with Transmitter TX C.100 or TX C.106

#### **Applications:**

By using state of the art DVB-T COFDM modulation together with digital diversity reception, the RX C.100 receiver provides superior performance in non-line of sight and multipath applications. Compared to traditional analogue transmission, a better bandwidth efficiency and larger distance can be achieved without noise, chroma fading or shadowing. Wireless cameras no longer need to have a clear line of sight to the receive location to have good picture quality; in metropolitan areas the reflections on the buildings even help to augment reception. Its ruggedized and compact housing make the RX C.100 as a perfect solution for mobile applications, like e.g. OB vans, satellite trucks, sport stadiums or temporary point-to-point links.

## Specifications:

### Video Specifications:

1x Serial Digital Output (SDI):

SMPTE 259M, 270 Mbit/sec, 525@30i or 625@25i, 1x BNC 75 Ω

1x Composite Video (CVBS):

Composite 1Vpp, NTSC or PAL B/G, 1x BNC 75 Ω

1x S-Video (Y/C) :

1 Vpp, NTSC or PAL B/G, 2x BNC 75 Ω (1 shared with CVBS)



### Audio Specifications:

Analogue Audio Output:

Symmetric Stereo, Line Level, 2x Lemo 3pin sockets

### Decoding Specifications:

Video Decoding:

MPEG-2 Video according to ISO/IEC 13818-2 MP@ML

Audio Decoding:

MPEG Audio Layer II Stereo according to ISO/IEC 11172, 2 channels, 16 bits, 48 kHz

End-to-End Latency:

Approx. 400 msec together with TX C.100/106 Transmitter

### Receiving Specifications:

COFDM Demodulation:

Automatic detection of QPSK/QAM16, FEC (1/2, 2/3, 3/4, 5/6, 7/8), Guard Intervals (1/32, 1/16, 1/8, 1/4)

Frequency Range:  
(with 2.4 GHz Down-Converters)

2.350...2.550 GHz, adjustable in 500 kHz-steps  
(other range on custom request)

On-Screen-Display (OSD):

Intuitive Menu system with a wide range of parameters and status information

IF Input:

2x BNC 50 Ω, recommended cable attenuation: <20dB @ 800MHz



### Physical Specifications:

Dimensions:

169 x 109 x 47 mm, 662 g (body w/o connectors)

Operating Conditions:

-20...+50 °C, 90% humidity long term, 6'000 m altitude

Power Supply:

10...14 V, 8 W, 3pin Binder-Connector

### 2.4 GHz Down-Converter Specifications:

Power Supply:

12V DC, phantom powered over IF cable

RF Input:

Female connector type N 50 Ω, noise figure: 1.0 dB,

IF Output

BNC 50Ω, gain: +30 dB

Dimensions:

85 x 65 x 25 mm, 250 g (body w/o connectors)



### Additional:

Receiver in a portable case:

The RX C.100 is also available as briefcase receiver, complete with integrated down-converters, battery with rapid-change system, TFT-preview monitor in a ruggedized waterproof case.

