

## RX C.206

### Low Delay Digital Diversity COFDM Broadcast Receiver

# KERN



**Professional  
Audio/Video  
Diversity-  
Receiver with  
Genlock**

#### 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
- ▶ Ultra Low-Delay:  $\leq 40\text{ms}$  end to end, for any Format together with the Transmitter TX C.206
- ▶ High Connectivity: 2 x SDI, 2 x CVBS, Component Video (RGB or YCbCr), Analogue (XLR) and Digital Audio (Embedded Audio and AES-3)
- ▶ Dedicated Genlock-Interface for Synchronization to a Common Studio Clock
- ▶ Compact Design in only half-width, 1 HE 19" Rack-Mount Housing
- ▶ Separate Down-Converters/RF-Amplifiers for Optimal Reception
- ▶ Advanced Security by Content Encryption with AES128 (Option)
- ▶ Easy to use. Plug and Play. Optimal Combination with Transmitter TX C.206

#### Applications:

By using state of the art DVB-T COFDM modulation together with digital diversity reception, the RX C.206 receiver provides superior performance in non-line of sight and multipath applications. Ultra-low delay allows lip-synchronous recording of wireless video and ambient sound. Equipped with an AES128 decryption option it allows establishing secure transmissions without eavesdropping. A rich set of both digital and analogue connectors for all kind of video and audio signals together with a Genlock-Interface in a compact housing make the RX C.206 as a perfect solution for both mobile and fixed broadcast applications, like e.g. OB vans, satellite trucks, sport stadiums or studios.

## Specifications:

### Video Specifications:

2x Serial Digital Output (SDI):	SMPTE 259M, 270 Mbit/sec, 525@30i or 625@25i, 2x BNC 75 Ω
2x Composite Video (CVBS):	Composite 1Vpp, NTSC or PAL B/G , 2x BNC 75 Ω
Component Video:	Selectable RGB or YCbCr, 1Vpp, 3x BNC 75Ω

### Audio Specifications:

Analogue Audio Output:	Symmetric Stereo, Line Level, 2x XLR (w/adaptors)
AES/EBU Digital Audio Output:	2 channel, 16 bit, 48 kHz, according to AES-3id, 1x BNC 75 Ω
Embedded Audio (SDI):	2 channel, 16 bit, 48 kHz, according to SMPTE 272M

### Decoding Specifications:

Video Decoding:	MPEG-2 Video according to ISO/IEC 13818-2, Selectable Low-Delay and Compatibility Mode
Audio Decoding:	MPEG Audio Layer II Stereo according to ISO/IEC 11172, 2 channels, 16 bits, 48 kHz
End-to-End Latency:	≤ 40 msec in Low-Delay Mode together with TX C.206 Transmitter
Genlock-Interface:	Genlock-In: 1Vpp, NTSC or PAL B/G, 1x BNC 75 Ω Genlock-Loop-Through: 1x BNC 75 Ω
Decryption (Option):	128bit Advanced Encryption Standard (AES128) according to FIPS197

### Receiving Specifications:

COFDM Demodulation:	Selectable Bandwidth: 6, 7, 8 MHz Automatic detection of QPSK/QAM16, FEC (1/2, 2/3, 3/4, 5/6, 7/8), Guard Interval (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)
Status Display:	Field strength and reception quality for each diversity channel. Information about detected COFDM parameters.
IF Input:	2x BNC 50 Ω, recommended cable attenuation: <20dB @ 800MHz

### Physical Specifications:

Dimensions/Weight:	Half-width 19", 1 HE: 221 x 260 x 44 mm (body w/o connectors)
Operating Conditions:	-20...+50 °C, 90% Humidity long term, 6'000 m Altitude
Power Supply:	100...240 V AC, 56 W max.

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

