

RECEIVER

CRX6

Central Receive 6-way MaxRC COFDM Receiver with Multi-Channel Option



The CRX6 Receiver is a ruggedized COFDM DVB-T compliant six-way diversity central receiver. It offers exceptional RF performance and IP-66 environmental durability for external use. The CRX6 is the new generation of receive systems. Unlike equipment at typical diversity receive sites, with multiple coaxial cables from the tower to the receiver/decoder, the CRX6 design reduces six coaxial runs to one Ethernet cable, thus decreasing the susceptibility to lightning and reducing overall system costs.

In contrast to the old single, highly directional antenna, the CRX6 employs multiple antenna elements arranged to cover 360° of azimuth in overlapping sectors. The improved operation efficiency in signal acquisition focuses on the integration and optimization of the antenna d adaptive digital signal processing (ADSP) and maximal ratio design, use of adaptive digital signal processing (ADSP), and maximal ratio combining (MRC) techniques.

Operational efficiency in signal acquisition is improved by a focused approach to integration and optimization of the antenna design, use of adaptive digital signal processing (ADSP) and maximal ratio combining (MRC) techniques. In the past, these three areas have been treated and controlled independently. By combining and optimizing these areas, a new class of fully autonomous Central Receiving Systems provide significant value and efficiency. The CRX6 system automatically optimizes the receive signal, virtually eliminating all human intervention.

A Web page controller is used to set up and monitor the CRX6. The controller features channel control, antenna receiver statistics, individual sector graphs, and can shut down specific directional antennas. An easy-to-use administration software package is supplied to set advanced functions, such as changing frequency plans, AES decryption keys, or unit naming.

The CRX6 is compatible with an eLink remote receiver interconnect, enabling an accessory controller/receiver to power, control, and de-code signals received by single or multiple remote receivers. The eLink-enabled controllers include the DR3, BCRx, and MMCR.



Key Features

Integrated 6-way diversity COFDM receiver
High Dynamic Range
Single cable coupling
MPEG4/MPEG2 Auto Detect
IP streaming of MPEG TS
Software configurable settings
Web page control
Pole mounting kit
All weather housing

Typical Applications

Airborne downlink

Surveillance, firefighting, SWAT, public safety, and homeland security

Homeland Security

Options

AES Decryption

Fiber connection

Multi-Channel Simultaneous Receive (2x or 4x)

Application-specific antennas

TSM-2020 StreamView Controller

TSM-2020 Contribution grade decoder

CRX6 Datasheet



Technical Specifications

RF Performance

Base Model Number	Frequency (GHz)	Power Use (W)
23CRX6	2.025 to 2.500	22
23CRX6-2	2.025 to 2.500 2.025 to 2.500	48
23CRX6-4	2.025 to 2.500 2.025 to 2.500 2.025 to 2.500 2.025 to 2.500	70
70CRX6	6.425 to 7.150	26
70CRX6	6.425 to 7.150 6.425 to 7.150	55
70CRX6	6.425 to 7.150 6.425 to 7.150 6.425 to 7.150 6.425 to 7.150	100

Note: Not all bands may have been tested for FCC compliance. Please consult your Vislink representative.

Tuning Step Size	250 kHz step size - standard 100 kHz step size - optional
Frequency Stability	± 10 ppm
Demodulation Modes	Auto-detected within modulation format and bandwidth
Modulation 1	 Formats: COFDM (DVB-T) DVB-T: Support all GI, CR, and Modulation Carriers: 2K Bandwidth: 5, 6, 7, 8 MHz
Modulation 2	 Formats: COFDM-NB DVB-T: Support all GI, CR, and Modulation Carriers: 2K Bandwidth: 2.5 and 1.25 MHz (SR Scaled DVB-T)
Diversity	
Channels	6/2 Channel Maximum Ratio Combining
System	
Decryption	(Optional) AES 128 / 256-bit BCRYPT 1 and BCRYPT 2 (FIPS PUB 197)
Control	Web interface
User Data	Serial over Ethernet (UDP
Ethernet	Stream TSoIP UDP/RTP RTSP Unicast and multicast
Power Requirements	
Power Input	Power-over-Ethernet (PoE) IEEE 802.3af
Auxiliary Power	MS style connector for use with Optional fiber-optic interconnect
Standard Acccessories	 PoE injector Lightning and grounding protection Mounting Kit with detailed instructions Web page browser for configuration and monitoring User manual

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Physical Characteristics	
Size and Weight	model dependent
Mount	BlueSky Master
Connectors	Ethernet (RJ-45)Fiber (Optional)
Environmental	
Temperature Range	Full specification: -30° to +60° C (-22° to 140° F) Ambient
Storage	-40° to +80° C (104° to 176° F)
Humidity	0 to 95% non-condensing
Ingress	IP-65 (by design)

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