OCR-1911

Wideband SDR receiver for signal intelligence

OCR-1911 is a wideband software-defined receiver for radio monitoring and communications surveillance. It covers 75 MHz to 6 GHz with up to 200 MHz instantaneous bandwidth and two independent channels. Digitised data is streamed in VITA 49 format over four 10 GbE fibre interfaces, so the receiver works with ZETA Oculus Z or with third-party signal processing software. Optional dependent channels extend it to four phase-synchronous channels.



Figure 1. OCR-1911 receiver, front and rear panels

Key Features

- 75 MHz to 6 GHz coverage
- Platform-independent data streaming
- Phase-synchronous expansion

AT A GLANCE

FREQUENCY RANGE
75 MHz – 6 GHz (20–75 MHz supported, RF specifications not guaranteed)

INSTANTANEOUS BANDWIDTH
Up to 200 MHz

DIGITISED BANDWIDTHS
200, 100, 80, 50, 40, 25, 12.5, 6.25, 3.125, 1.5625 MHz

NOISE FIGURE
11.5 dB – 15.2 dB

TUNING STEP
< 10 Hz

APPLICATIONS

- Radio monitoring
- Communications surveillance and COMINT
- Front end for the Oculus Z spectrum monitoring system

Capabilities

75 MHz to 6 GHz coverage

Two independent channels tune across 75 MHz to 6 GHz in steps of less than 10 Hz, with digitised bandwidths from 1.5625 MHz up to 200 MHz.

Platform-independent data streaming

IQ data is streamed in VITA 49 format over four 10 GbE SFP+ ports, so any signal processing suite that reads the stream can use the receiver.

Phase-synchronous expansion

Optional dependent channels extend the receiver to four phase-synchronous channels.



Figure 2. OCR-1911 front panel, 1U 19-inch chassis



Figure 3. OCR-1911 rear panel with RF, reference and LO inputs, control port and four data ports



Figure 4. OCR-1911 rear panel RF connectors

Specifications

General	
Frequency range	75 MHz – 6 GHz (20–75 MHz supported, RF specifications not guaranteed)
Instantaneous bandwidth	Up to 200 MHz
Digitised bandwidths	200, 100, 80, 50, 40, 25, 12.5, 6.25, 3.125, 1.5625 MHz
Noise figure	11.5 dB – 15.2 dB
Tuning step	< 10 Hz
Independent channels	2 (up to 4 phase-synchronous channels with optional dependent channels)
RF input impedance	50 Ω
Control	TCP/IP, 1 GbE, RJ45
Data interface	4 × 10 GbE, SFP+, VITA 49
Temperature	0 °C to +45 °C operating, −25 °C to +60 °C storage
Form factor	1U, 19-inch rack

Warranty

All hardware and software procured from Zeta is under warranty against manufacturing or design failures for 2 years. Customer-specific warranty terms may be arranged.

Disclaimer

Due to ongoing research and development, Zeta reserves the right to change product specifications without notice.

About Zeta

Zeta Defence develops electronic intelligence (ELINT) and communication intelligence (COMINT) equipment and radar / electronic warfare simulators. Its capabilities include RF transceiver system design, digital design and large-scale software development.

Contact

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