Radio Z

Real-time radio link analysis tool

Radio Z is a configurable real-time analysis tool for SDH/PDH radio links. It demodulates the link blindly at up to 35 MBaud, synchronises to a user-defined radio frame, removes overhead bits, demultiplexes in several levels and applies a configurable stack of decoding operations. E1 frames are extracted from multiplexed STM-1 or PDH frames and the N × E1 output is sent to a remote host over TCP or UDP.

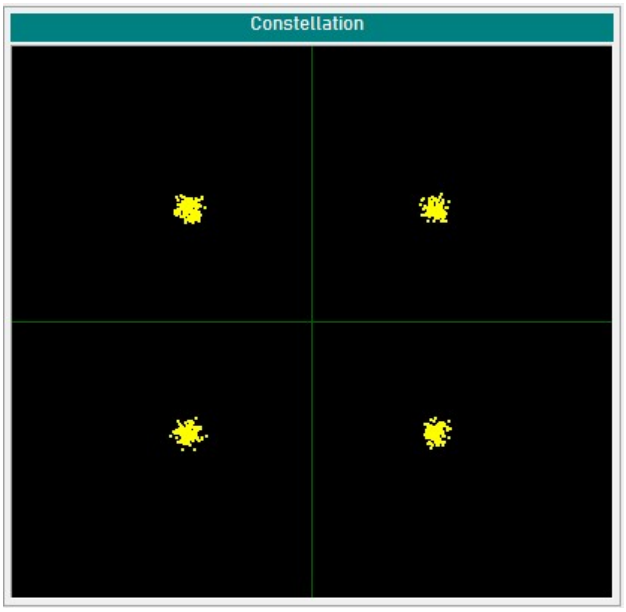


Figure 1. Radio Z constellation view of a QPSK signal

AT A GLANCE

SYMBOL RATE
Up to 35 MBaud

MODULATIONS
BPSK, QPSK, DQPSK, π/4-DQPSK, OQPSK, 8PSK, QAM-16, QAM-32, QAM-64, QAM-128, QAM-256

FRAME FORMATS
SDH (STM-1), PDH

OUTPUT
N × E1 over TCP or UDP

APPLICATIONS

- Analysis of SDH/PDH microwave radio links
- Extraction of E1 traffic for COMINT processing

Key Features

- Blind demodulation up to 35 MBaud
- Configurable frame decoding
- Distributed operation

Capabilities

Blind demodulation up to 35 MBaud

BPSK, QPSK, DQPSK, π/4-DQPSK, OQPSK, 8PSK and QAM-16 to QAM-256 signals are demodulated without prior knowledge of the link.

Configurable frame decoding

The decoder synchronises to a user-defined frame with sync bits at any position, removes overhead, demultiplexes with user-defined control and justification bits and extracts E1 frames from STM-1 or PDH.

Distributed operation

The demodulator and decoder connect over TCP or UDP, so the demodulator runs on a remote host, and the N × E1 output is delivered the same way.

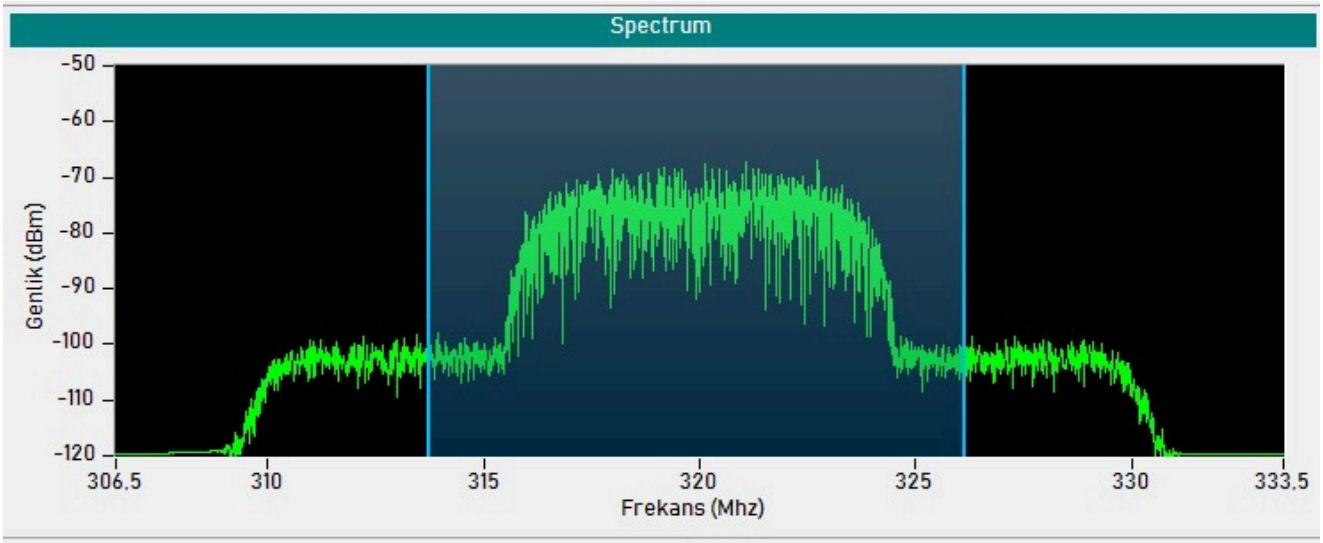


Figure 2. Radio Z spectrum view of a demodulated radio link

Specifications

General	
Symbol rate	Up to 35 MBaud
Modulations	BPSK, QPSK, DQPSK, π/4-DQPSK, OQPSK, 8PSK, QAM-16, QAM-32, QAM-64, QAM-128, QAM-256
Frame formats	SDH (STM-1), PDH
Output	N × E1 over TCP or UDP

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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