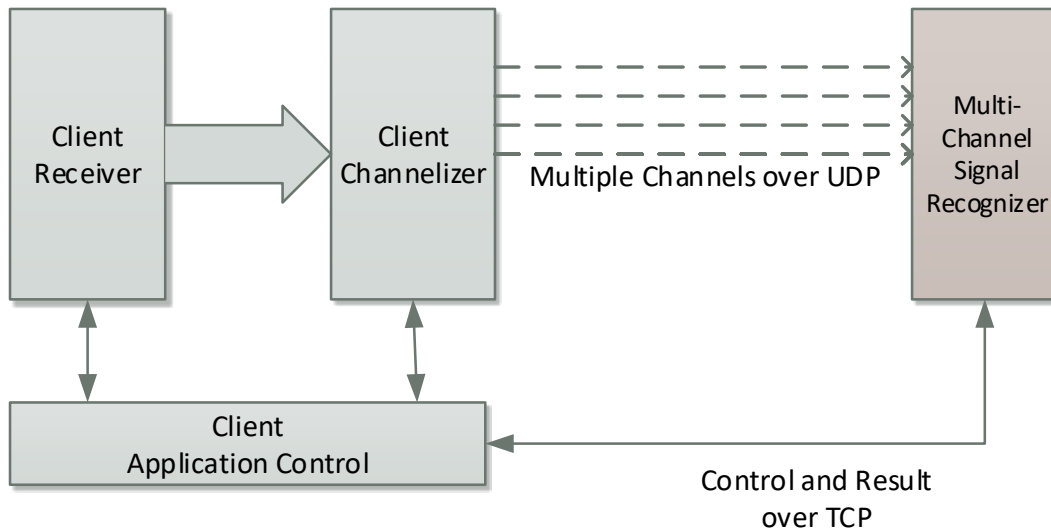# Signal Z

Multi-Channel Signal Recognizer

Signal Z from Zeta Defense is a highly scalable signal recognizer for integration with external applications and networked operation. Software exploits the unique characteristics of each signal type instead of recognizing the modulation type. Robust algorithms handle low SNR and severe multipath conditions, as well.

True Signal Classification

Signal Z directly recognizes the signal type and does not use modulation recognition. Efficient exploitation of unique characteristics (cyclic prefix, chip rate etc...) of the underlying protocol allows directly recognizing the signal type.

Seamless Integration

Signal Z accepts streams over UDP and returns results over TCP. Networked architecture minimizes integration efforts and also enables offloading the processing to another node if necessary.

High Performance

Signal Z is able to recognize multiple signals at the same time with maximum processing duration of 1 sec.

Flexible Licensing Options

Licensing options for both application and library levels are possible.

Wideband Channelizer Option

Zeta's GPGPU based channelizer – **Channel Z** can be jointly used with Signal Z for simultaneous signal recognition within wideband data.

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Specifications

Signal Types

Ready	Planned
NXDN	DVB T/T2
dPMR	DAB
DMR	LTE-TDD
TETRA	WiMax
DSTAR	Wifi/802.11
APCO P25	GSM
Yaessu Fusion	3G
Analog Voice (FM, AM, LSB, USB, CW)	

Performance

Required SNR	7 dB min
Duration	1 sec for digital signals, max
	1 sec for analog signals (assuming voice activity present)
Bandwidth for Analog Signals	50 kHz max

Warranty

All hardware and software procured from Zeta is under warranty against manufacturing or design failures for 2 years. Customers specific demands for warranty may also be arranged.

Disclaimer

Due to ongoing R&D, Zeta reserves the right to change the product specification without notice.

Custom Services & Solutions

Zeta Defense provides customers with solutions optimized to their specific needs. This includes feasibility reports; customized training sessions on SIGINT related issues and complete turnkey solutions.

About Zeta Defense

Zeta Defense is a young company developing solutions for RF Spectrum Monitoring & Management, ELINT, COMINT fields. Our capabilities include digital signal processing, highly parallel computation architectures (FPGAs and GPUs), high and low level software development, client-server architectures based on high performance reliable messaging structures, RF hardware simulation and design and systems engineering,

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