



RR024 - 2-18 GHz Radar Electronic Support

The RR024 is designed for Radar Electronic Support (RES) and Radar Warning Receiver (RWR) applications where high performance and small size and are of prime importance, with filtering, amplification, detection and pulse parameter measurement being combined into one multi-function unit.

RADAR • AIR • SEA • LAND • MANPORTABLE

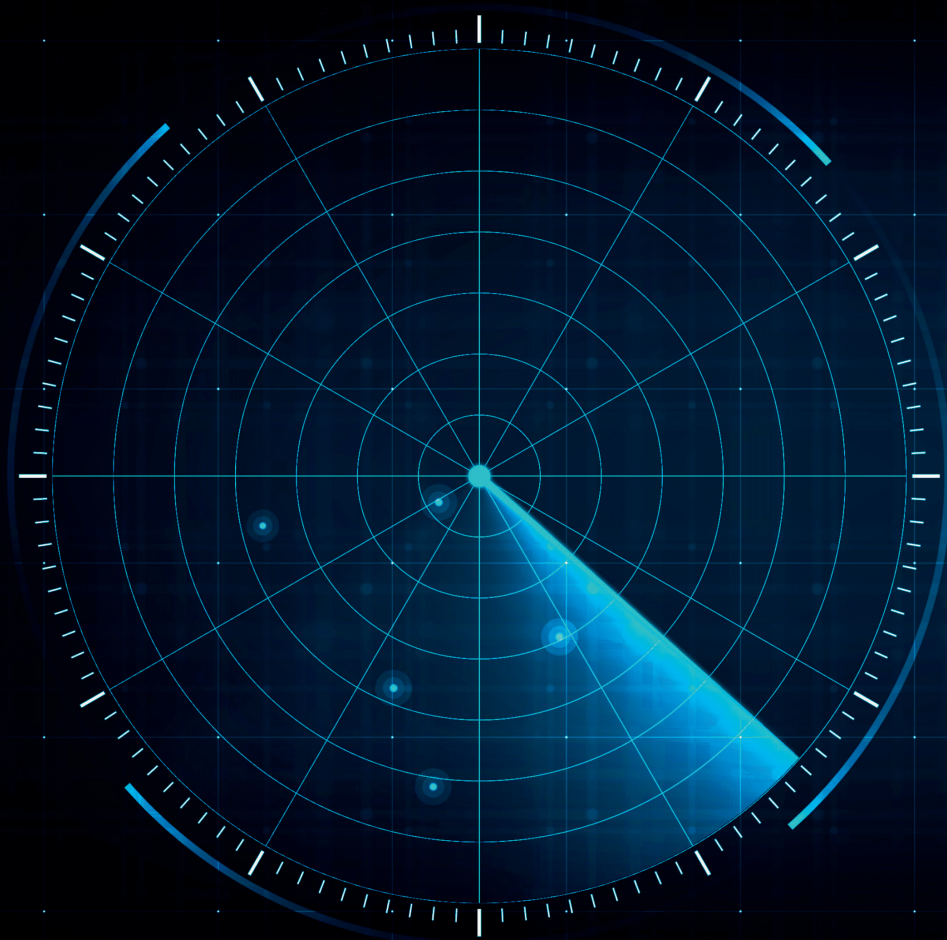
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FEATURES

- Comprehensive API for ease of integration with existing EW suites
- High speed data interface and control provided via GbE, SFP Fibre transceiver and USB3,0 (option)
- Pulse descriptor word output

BENEFITS

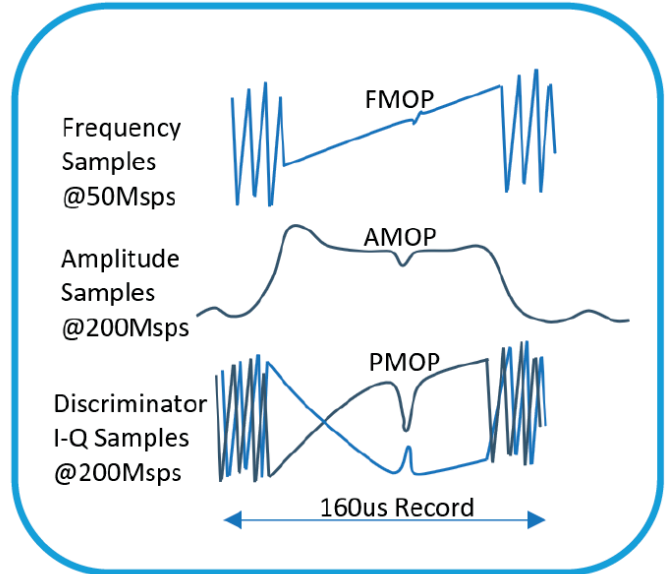
- Single high-performance frequency measurement channel providing 14-bit frequency measurement resolution
- Four independent 60dB dynamic range amplitude measurement channels to support amplitude comparison direction of arrival
- RF input switching provides pulse blanking and antenna polarisation diversity

IMPULSE DATA RECORDS (OPTION)

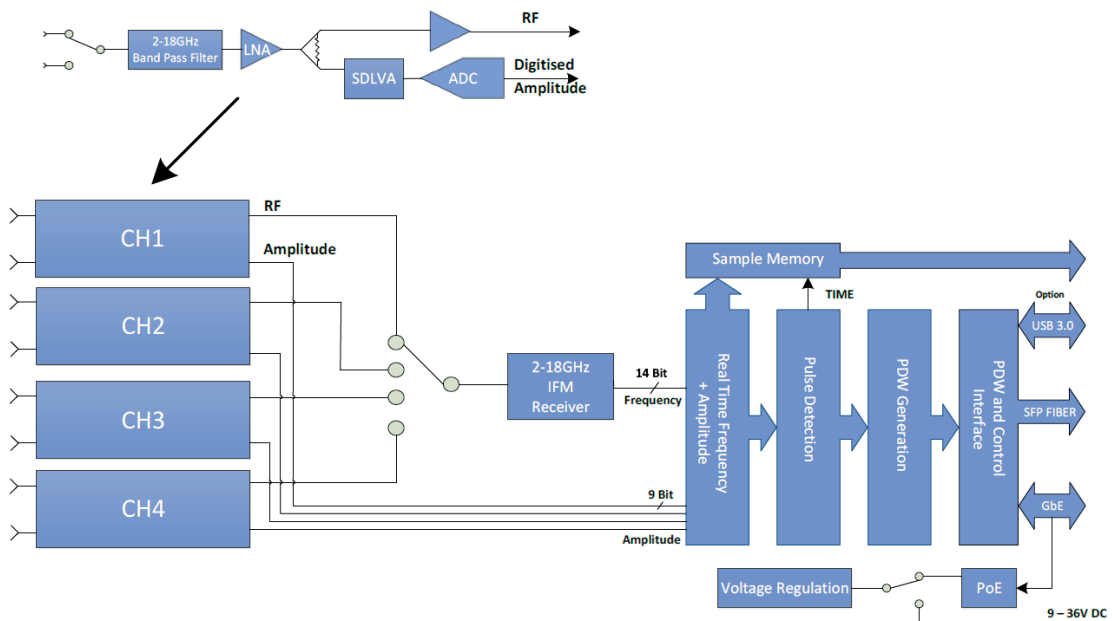
Sampled amplitude, frequency and discriminator phase data is captured for every intercepted pulse. This data is then transferred as an individual TOA timestamped pulse record of up to 32K samples to support Specific Emitter Identification.

Transfer of pulse record data can be enabled/ disabled dependant on measured frequency and pulse width to optimise POI vs data transfer and storage requirements

Frequency discriminator IQ sampled data provides detection of ultrafast wideband chirps (>1GHz/us) and phase modulation on pulse perturbations



BLOCK DIAGRAM



RR024 - 2-18 GHz Radar Electronic Support

Performance Parameter	Data
Operating frequency	2 - 18 GHz
Instantaneous bandwidth	16 GHz
Receiver sensitivity	-57dBm (at the Rx input port)
Instantaneous dynamic range	57dB
Types of detected signal	Pulse (70ns - 655.35us), Continuous Wave
Signal parameter measurement	Pulse width (PW), Pulse Amplitude (PA), Frequency (RF), Time Of Arrival (TOA) Intra Pulse Data (option)
Shadow time/ recovery	300ns max, <150ns typ
Frequency resolution; accuracy	1 MHz (nom), 14 bits; 4.5MHz RMS
Amplitude resolution; accuracy	0.1dB; 2.0dB RMS over dynamic range
Intrapulse data time resolution	5ns
Intrapulse data max record length	32K samples
RF pulse density	>1 Mpps
Microwave input connectors	SSMA Female
Power & control interface	GbE, SFP-Cage, USB3.0
Auxiliary control	10MHz ref in, 1pps ref in, RF Blanking LVDS in
Supply voltage	9 to 36 VDC
Power dissipation (operating)	<40W nom
Weight	2kg