

QR013



2-18GHz VME Form Factor Channelised Receiver

The QR013 Channelised Receiver is an 8 channel parallel processing IFM architecture providing instantaneous 2-18GHz frequency coverage in a VME Form Factor unit. Extension to the frequency coverage down to 0.5GHz is readily achievable as an option.

A low loss broadband multiplexer structure channelises the 2-18GHz band into 8 channels of nominally 2GHz width. The output of each channel is amplified and downconverted to a common IF of 0.5GHz to 3GHz and presented to an array of identical digital IFM units implemented using FPGA techniques. Amplitude

measurement is combined with the frequency measurement in each channel, resulting in a full descriptor word being available simultaneously from each 2GHz segment of the RF spectrum. This high POI architecture offers exceptional quality of signal measurement in complex emitter scenarios containing multiple simultaneous signals of interest when unwanted interfering signals are also present.

For further information, please contact the Sales Dept.

FEATURES

- 2-18GHz Coverage (optional down to 0.5GHz)
- VME Form Factor
- 8 Channel Pre-selector
- Digital IFM Frequency Measurement
- Full Pulse Descriptor Outputs
- High POI in complex environments
- Simultaneous Signal Measurement

APPLICATIONS

- Electronic Support Measures (ESM)
- Radar Warning Receiver (RWR)
- Electronic Intelligence (ELINT)
- Defensive Aids (DAS)
- Ground, Airborne, Naval Applications

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ELECTRICAL SPECIFICATIONS

RF input frequency range	2.0 - 18GHz Optional extension to 0.5GHz
No. of channel	8x 2Ghz B/W
Maximum input CW	+10dBm
Lo re-radiation	-70 dBm max
Tuning Speed	Instantaneous coverage
Adjacent channel rejection	30dBc min @ 1 GHz from band edge (50dBc typ)
Dynamic range	60 dB
Frequency resolution	0.5 MHz (15 Bit)
Pulse width resolution	5ns
Pulse width range	50ns to CW
Time of arrival resolution	5ns (32 Bit)
Amplitude Resolution	0.5 dBm
Internal clock frequency	50MHz
Variable Pw mode	Offers higher sensitivity and accuracy for longer pulses in a programmable high sensitivity mode
Power saving mode	Offers low quiescent power consumption
Power consumption	Less than 30 watt
Size	VME 6u x 2 slot (8Hp)

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