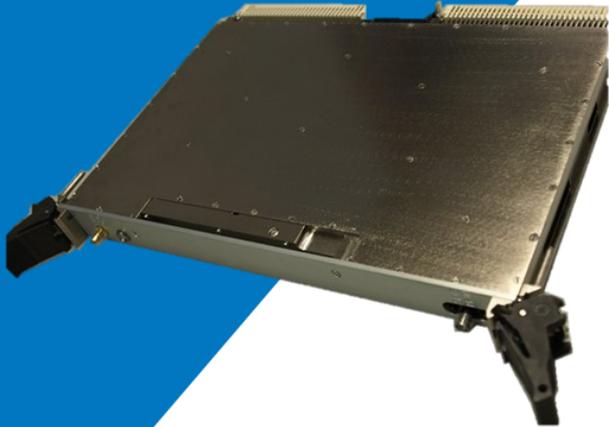


Multi-Channel 4 to 18GHz Threat Warning Receiver

RR025



Model	Number of simultaneous channels
RR025-F2	2
RR025-F3	3
RR025-F4	4
RR025-F5	5
RR025-F6	6

Multi-Channel 4 to 18GHz Threat Warning Receiver

Teledyne Defence & Space (TDS) latest digitising receiver builds on the strong tradition of TDS digital frequency discriminators (DFD). This new receiver, configurable from 2 to 6 channels per unit, takes key performance elements from existing DFDs and successive detection log video amplifier (SDLVA) product lines, integrating them into a complete solution suitable for military environments.

The RR025 offers the benefits of TDS' field-proven proprietary SSS discriminator tiers coupled with the latest digital technology to produce a receiver that provides high accuracy frequency data. In addition, TDS' latest family of SDLVAs provides high dynamic range, fast recovery time,

and excellent linearity across the entire 4-18GHz frequency range.

Frequency and Amplitude data is output as a clocked data words via the industry standard VPX (Multigig RT) backplane connector. Control and status information use serial interfaces on the same VME backplane.

The DFD is packaged in an industry standard dual slot (8HP) width plug-in format suitable for most EW suite equipment racks.

Performance in dense signal environments may be enhanced by the addition of TDS' SA219 Broad Band Switched Multiplexer (BBSwMux), an ultra fast switching (<100ns) channelised 'Front End' filter bank, optimized for use with the RR025.

APPLICATIONS

- Electronic Support Measures (ESM)
- Radar Warning Receivers (RWR)
- Direction Finding (DF)
- ECM Set-on
- Airborne, Fixed Wing & Rotary
- Land
- Naval

FEATURES

- Full 4.0 – 18GHz broadband operation
- High Probability of Intercept (POI)
- 2 to 6 independent synchronised channels per unit
- Multiple RR025's can be synchronised for Direction Finding (DF)
- High Speed Serial Output
- 8-BIT output (62.5 MHz Resolution)
- 100 MHz Clocking rate
- 60 dB Dynamic range
- Digitised Frequency & Amplitude
- VPX 6u Form Factor
- Compact in size

Please refer to Technical Article 6972 for more information

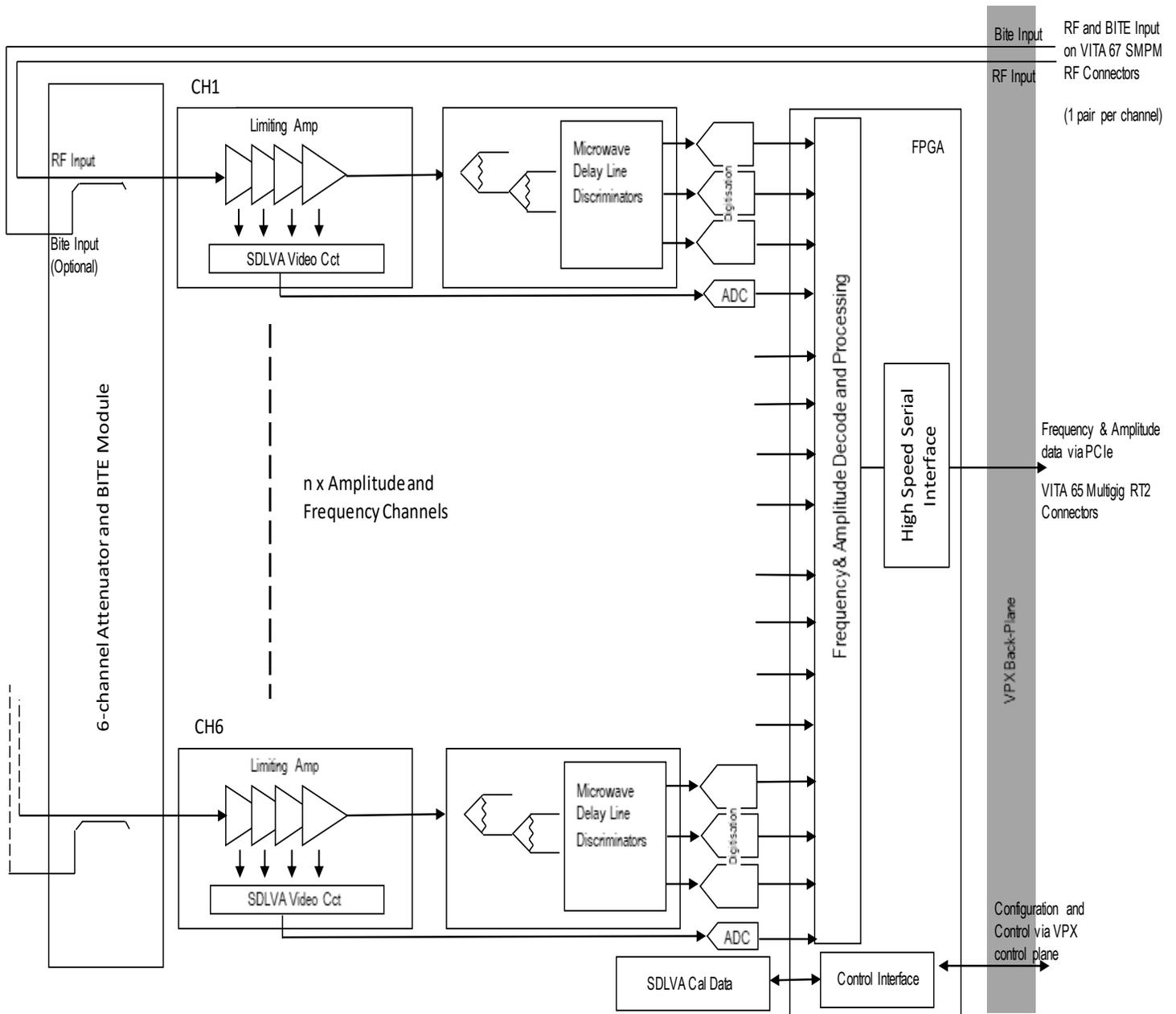
Electrical Specification

Parameter	UOM	Min	Nom	Max
Operating frequency range	GHz	4.0		18.0
Frequency resolution	MHz		62.5	
Digital frequency resolution	Bits		8	
Frequency error (RMS)	MHz			60
Frequency & Amplitude measurement range	dBm	-55		+5
Log video linearity (over frequency and temperature range)	dB		±2.0	±2.5
Log video rise time	ns		20	25
Log video recovery time	ns		35	75
RF input pulse width	ns	50		CW
RF overload power	dBm			20
RF input VSWR				2.1:1
Temperature range	°C	-20		+85
Amplitude measurement resolution	dB	0.25		
Recovery time	ns		150	300
Amplitude RMS accuracy	dB	2.0		
Supply current: +12V	A			1.0
Supply current: +3.3V	A			2.0
Supply current: +5V	A			1.5
Supply current: -12V	A			0.2
Boot time	sec			5
Data interfaces	RF input: Data output, Control, status, power:		Rear panel VITA 67 VPX VITA 65	
Data output format		8-BIT frequency, 2 frequency bad data flags, 8-BIT amplitude		
Weight	kg			4.00
Size			6U x 8HP 262mm x 40.64mm	

Please refer to Technical Article 6972 for more information

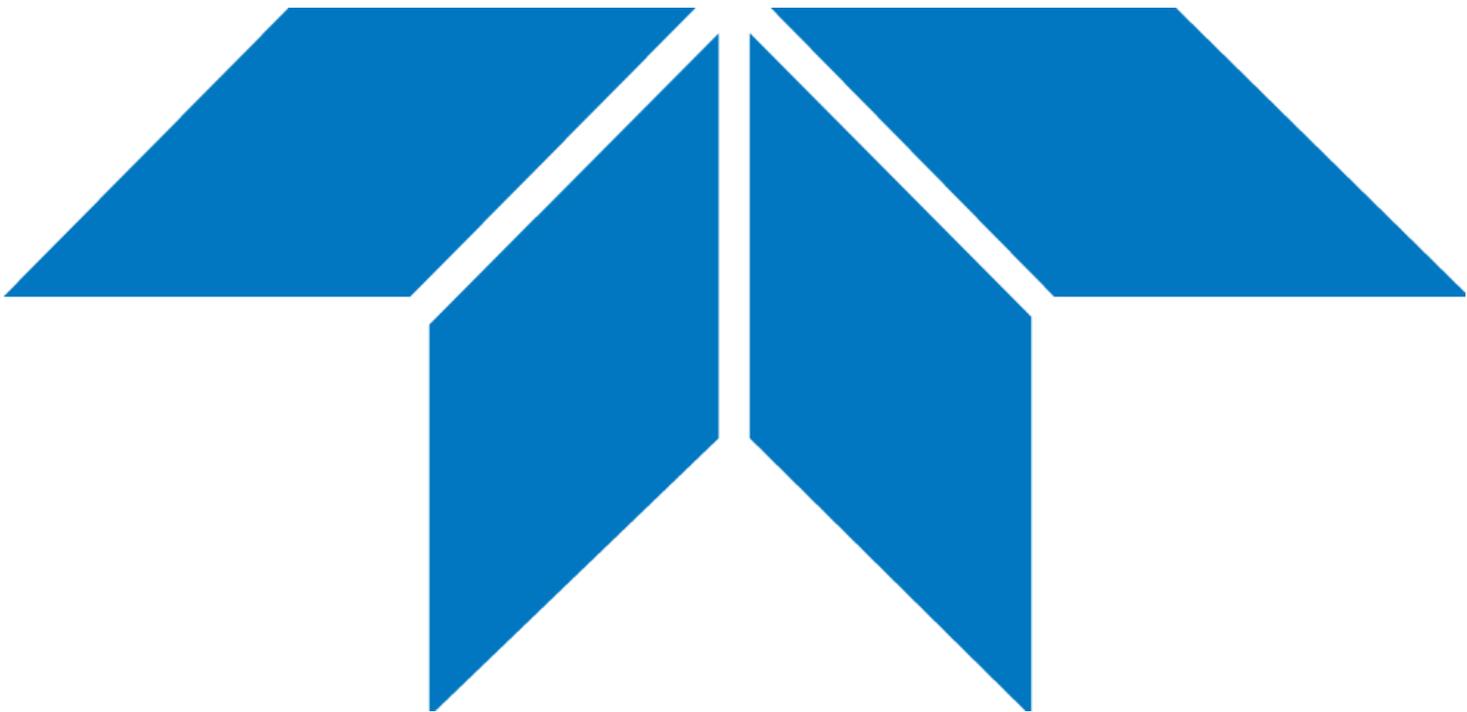
See restrictions on published datasheets at www.teledynedefence.co.uk/

Block Diagram



Please refer to Technical Article 6972 for more information

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