

Specialists in RF techniques

Issue A  
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## RR1300 VLF/MF Multicoupler

The RR1300 is a series of VLF/MF multicouplers designed for use in communications receiving systems where broadband coverage combined with low noise figure and high intermodulation intercept point are essential. Optimum coupling is provided between a single antenna input to multiple outputs. This optimisation trades off noise figure against intermodulation performance for systems where the local signal environment requires that dynamic range of the RF front end be maximised. Either standard AC mains or +24V DC supply can be used to power the unit. The modular construction enables a compact design to be achieved with the unit occupying only 1.75" (1U) of vertical space used if the 8-way and 3.5" (2U) used in the 16 and 32-way units. The unit is suitable for mounting directly into a 19" rack.



Picture Shows the RR1300-8 Unit

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Specification	Parameter			
Frequency Range	10kHz to 1.5MHz			
Gain	0dB $\pm$ 1dB			
Noise Figure	10kHz	15dB maximum		
	100kHz	8dB maximum		
	1.5MHz	7dB maximum		
Number of Inputs	1			
Number of Outputs	8, 16 or 32. Others on request			
Output Intercept Point		8-way	16-way	32-way
	2 <sup>nd</sup> Order (OIP2)	77dBm	77dBm	77dBm
	3 <sup>rd</sup> Order (OIP3)	37dBm	33dBm	33dBm
VSWR Input/Output (50 $\Omega$ )		2.0:1 max	1.7:1 max	1.7:1 max
Isolation	O/P to I/P	28dB minimum		
Maximum Input Signal	CW	30dBm maximum		
	Pulse	2kV, 1.6 $\mu$ s rise-time, 50 $\mu$ s duration		
Power Supply	100 - 240V, 50-60Hz			
Connectors	RF Input	N-type socket		
	RF Output	BNC-type socket		
	Power (ac)	IEC Plug		
Dimensions	Width	483mm		
	Depth	350mm		
	Height	44mm (1U)	88mm (2U)	88mm (2U)
Temperature	Operating	-10°C to + 50°C		
	Storage	-40°C to +70°C		
Options	Alternative number of outputs			
	+24V DC power supply			
	Alternative Input/Output Connectors			