RAVEN RESEARCH

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RR1401A HF/VHF Switching Unit

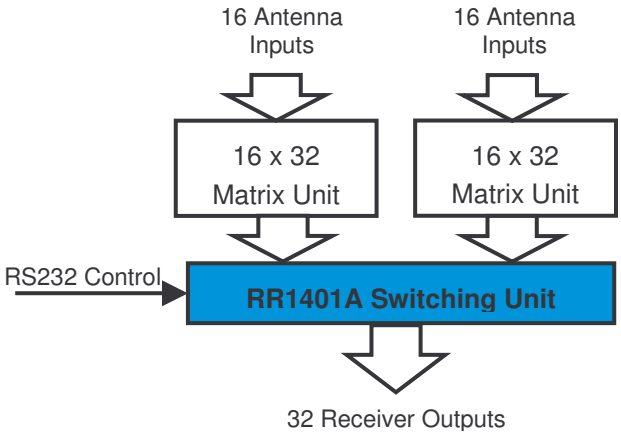
Features

The RR1401A is one of a series of high performance, extended frequency, HF switching units. They are designed to compliment the RR1003 series of HF signal exchange units, in matrix switching system applications where the number of inputs to the matrix is larger than sixteen.

The unit is designed for two basic options. The basic unit provides up to 32 independent outputs (in sets of 4) each selected from one of 2 inputs. This configuration can be changed from 32 x SP2T to16 x SP4T, depending on the configuration of the customer's system.

The switches incorporate 50-Ohm terminations on the un-switched ports to ensure that the deselected input is correctly matched for optimum system performance.

Control of the unit is by a standard RS232C or RS485 serial interface, with commands echoed back to confirm satisfactory operation. Faster switching is possible using a parallel data bus option.



RR1401A Switching Unit – Typical Usage in 32 x 32 Matrix Systems - Block Diagram

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A modular form of construction has been used to facilitate maintenance. The unit is 19”rack mounting, occupying 3U of front panel height.

Specification		Parameter
Frequency Range		DC-40MHz
Switching Function		32 x SP2T or 16 x SP4T
Number of Inputs		64
Number of Outputs		32/16 dependant on option
Insertion Loss		0.3dB max
VSWR Input/Output (50Ω)		1.3: 1 maximum
Isolation	I/P to I/P	70dB minimum
	I/P to O/P	70dB minimum
Maximum Input Signal	CW	+30dBm
Control Protocol		RS232C or RS485 (option)
Power Supply		24Vdc @0.8A
Power Supply Option		85 – 264Vac, 50-60Hz
Connectors	RF Input	BNC socket
	RF Output	BNC socket
	Power (ac)	3-pin AXR or IEC Plug (mains)
	Control (RS232C)	25-way D-type plug
	Control (RS485)	9-way D-type plug
Dimensions	Width	483mm
	Depth	360mm
	Height	133mm (3U)
Temperature	Operating	-10°C to + 55°C
	Storage	-20°C to +70°C
Options		Partial fitments in multiples of 4 x 2
		AC power supply

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