



Arkonia Systems Limited

ARK7083 Series V/UHF Switching Matrix

▲ *Fast Solid State Switching*

▲ *RS232/RS422/RS485/IEEE488/
Ethernet Control Options*

▲ *High Isolation*

▲ *Wide Dynamic Range*



The ARK7083 Series are active, non-blocking switching matrices covering the frequency range 20MHz to 1000MHz. The units can be provided with up to eight inputs and sixteen outputs, with each output having independent access to any input, irrespective of the number of outputs being connected to the same input (*'non-blocking'*).

The equipment is housed in a 19 inch rack mounting chassis, which contains the RF modules. The equipment can be controlled remotely via a standard data interface.

The matrix has been designed for use in a ground benign environment, typically being installed in a 19 inch rack cabinet as part of a large V/UHF Receiving System.

The matrix unit comprises high reliability solid state amplifier, power splitter and switch stages, constructed as easily identifiable and replaceable modules. This modular design approach results in excellent equipment maintainability.

The equipment operates from a standard 24 Vdc power supply. Other dc voltages as required are generated internally.

Variants of V/UHF switching matrices can be produced to operate with different numbers of input and outputs.

To accommodate larger System requirements, multiple units can be configured to achieve a larger capacity switching system.

Typical Specifications

Electrical

Number of Inputs	8
Number of Outputs	16
Frequency Range	20MHz to 1000MHz
Maximum Input Power Level	16dBm maximum
Input Impedance	50 ohm
Output Impedance	50 ohm
Input VSWR	2.0:1 maximum
Output VSWR	2.0:1 maximum
Noise Figure	11dB maximum
Average Gain	0dB ± 1dB
Gain Flatness	±3dB maximum
2 nd Order Output Intercept Point	+36dBm
3 rd Order Output Intercept Point	+20dBm
Isolation-	
input to input	60dBm minimum
input to output	40dBm minimum
output to input	45dB minimum
Output to output	25dB minimum
1dB Compression Point	+7dBm minimum (input)
Control	Control options available RS232/RS422/RS485/ IEEE488/Ethernet
Switching Speed	20ms maximum
Power Supply Requirements	24Vdc@4A

Mechanical

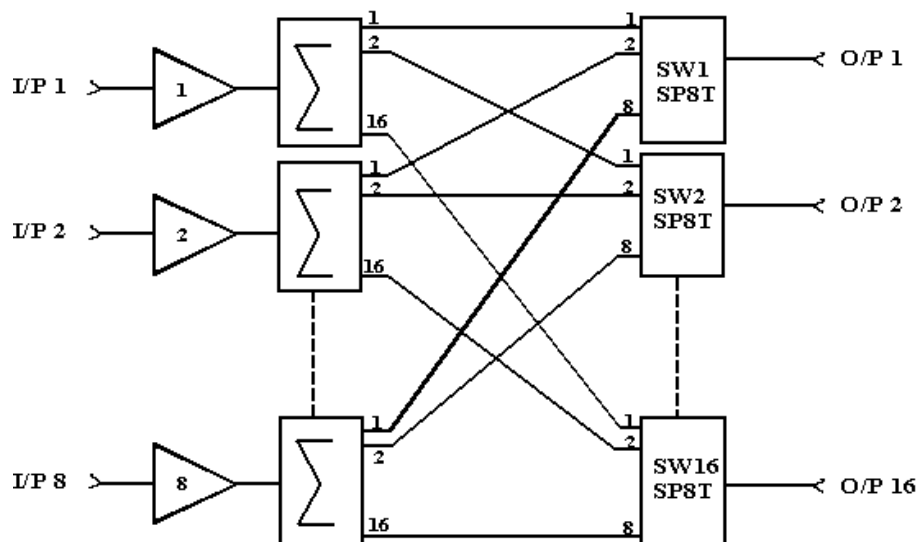
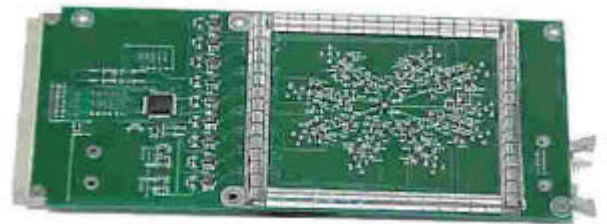
Dimensions:	
Height	266mm (6U)
Width	483mm
Depth	400mm
Weight	25kg nom

Connectors

RF Inputs	N type
RF Outputs	BNC Type
Power Supply	Trident 12 way
Control Input	25-way D-type plug

Environmental

Operating Temperature	0 to 50°C
Storage Temperature	-20 to 70°C
Humidity	90% R.H.



FOR FURTHER TECHNICAL INFORMATION REQUEST: PRODUCT SPECIFICATION



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