

Hawk Series Dual 8x8 Extended L-band Matrix

with gain control for Uplink and Downlink applications

The 1U Hawk Matrix has capacity for two 8x8 field replaceable matrix cards – which can be combining (fan-in) or distributive (fan-out) – for uplink and downlink applications. The Hawk can be fitted with any combination of cards depending on application, but is ideally suited for smaller gateways with multiple modems and one or two antennas. Model number is dependant upon full matrix module configuration.

Single 8x16 & 16x8 configurations are also available - please enquire.



Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.
Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

RF Parameters			
Routing		Distributive	Combining
Frequency Range		500 to 2450MHz (Extended L-band)	
Capacity		2 Matrix Cards – each 8 x Input and 8 x Output	
Configurations		2 x Distributive (D88D88) / 2 x Combining (C88C88) / 1 x Distributive & 1 x Combining (D88C88) / Single 8 x8 Module (D88 or C88)	
Switching Time		< 50ms (From receipt of a command to implementation of path change)	
Gain, mean across band		Min. 0±1 dB Max. 5±1 dB	Min. 0±1 dB Max. 5±1 dB
Gain Control Steps		0.5±0.15 dB	
Gain Flatness		Full band: ±1.5 dB Any 36MHz: ±0.25 dB	Full band: ±1.5 dB Any 36MHz: ±0.25 dB
Input Return Loss		Typ. 20 dB Min. 18 dB	Typ. 18 dB Min. 16 dB
Output Return Loss		Typ. 20 dB Min. 18 dB	Typ. 18 dB Min. 16 dB
Isolation (dB) Min. between any 2 ports	Input-Input	60 dB	
	Output-Output	60 dB	
	Input-Output	<2150 MHz 55dB, >2150 MHz 50dB	
Input RF Power		+20dBm absolute maximum	
Input & Output Ports		50Ω SMA (All ports DC blocked)	
Noise Figure	Max. at all gain settings	16 dB (one input routed to one output)	<850 MHz: 30 dB <1500 MHz: 26 dB >1500 MHz: 24 dB
1dB GCP Gain compression point, output power	<850MHz	-5 dBm	+12 dBm
	<1500MHz	0 dBm	+10 dBm
	>1500MHz	+4 dBm	+8 dBm
OIP3, at all gain settings	<850 MHz	8 dBm	32 dBm
	<1500 MHz	12 dBm	28 dBm
	>1500 MHz	16 dBm	22 dBm
Group Delay		<1.0 ns across operational bandwidth	
AC Input / AC Consumption		AC Input: 85-264Vac 50/60Hz, AC Consumption: 150W	
System Control & Reliability			
Remote Control & Monitoring		Ethernet via RJ45 with HTTPS & SNMPv3, 10BaseT/100 Base Tx. ETL TCP/IP, SNMP & Web browser interface.	
Local Control		HMI capacitive touch screen, field replaceable	
PSU Redundancy		Dual redundant and alarmed. Diode OR. Hot swappable	
CPU		Field replaceable	
Physical & Environmental			
Dimensions		1U high x 550mm deep x 19" wide	
Weight/Colour		<10 kg / RAL9003—White (Semi-matte)	
Temperature		Operating: 0 to 45°C / Storage: -20°C to +75°C	
Location / Humidity		Indoor use only / 20 to 90% non-condensing	
Altitude		2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level	
Spec. Version		1.2	