Hawk Series Dual 8x8 Extended L-band Matrix

for Uplink and Downlink applications

The 1U Hawk Matrix has capacity for two 8x8 field replaceable matrix cards – which can be the combining or distributive 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.

500 - 2450MHz

Operating frequency range for Ka-band & HTS applications

Resilience

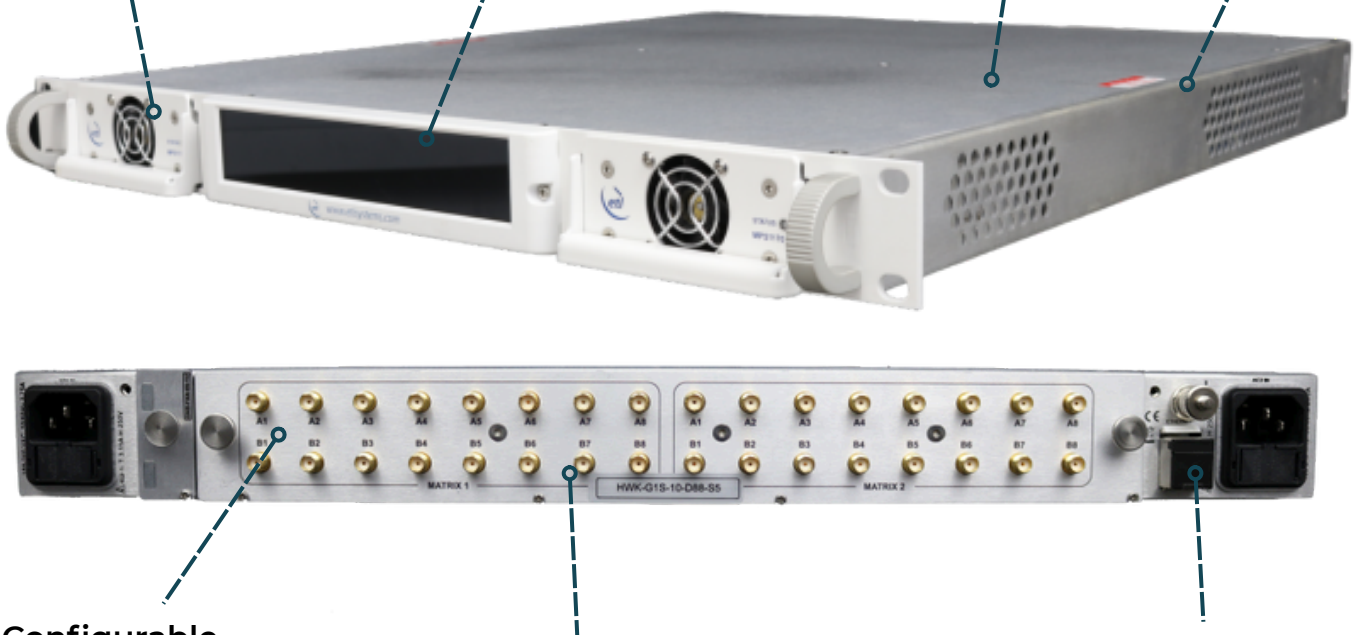
Dual redundant hot swap power supplies

Local control & monitoring

Front panel capacative HMI touchscreen

Compact

Housed in a 1U chassis



Configurable

Providing routing solutions including single or dual 8x8 distribution modules, dual 8x8 combining modules or a combination of distributive and combining modules

Easy maintenance

Field serviceable & replaceable modules, CPU & HMI

Remote control & monitoring

Via RJ45 Ethernet port with HTTPS & SNMPv3

RF Parameters			
Routing		HWK-10 Distributive	HWK-10 Combining
Frequency Range		500 to 2450MHz (Extended L-band)	
Capacity		2 Matrix Cards – each 8 x Input and 8 x Output	
Switching Time		< 50ms (From receipt of a command to implementation of path change)	
Input & Output Ports		50Ω SMA (All ports DC blocked)	
Gain (dB) Typ., mean across band		0±1	0±1
Gain Flatness (dB)		±1.5	±1.5
Any 36MHz		±0.25	±0.25
Input Return Loss (db)	Typ.	18	18
	Min.	14	14
Output Return Loss (dB)	Typ.	18	18
	Min.	14	14
Isolation (dB) Min. between any 2 ports	Input-Input	60	
	Output-Output	60	
	Input-Output	<2150 MHz 55dB, >2150 MHz 50dB	
Noise Figure (dB)	Typical	16 (one input routed to one output)	24 (one input routed to one output)
1dB GCP (dBm) Gain compression point, output power	<850MHz	+0	+12
	<1500MHz	+3	+10
	>1500MHz	+5	+6
OIP3, 3rd order intercept point	<1500 MHz	Typ. +18 dBm, Min. 16dBm	Typ. +28 dBm, Min. 25dBm
	>1500 MHz	Typ. +22 dBm, Min. 20dBm	Typ. +25 dBm, Min. 20dBm
Group Delay		<1.0 ns across operational bandwidth	
AC Input / AC Consumption		AC Input: 85-264Vac 50/60Hz, AC Consumption: 150W	
Input RF Power		+20dBm absolute maximum	
System Control & Reliability			
Remote Control & Monitoring		Ethernet via RJ45 with HTTPS & SNMPv3, 10BaseT/100 Base Tx. ETL TCP/IP, SNMP & Web browser interface. Via parent chassis.	
Local Control		HMI capacitive touch screen, field replaceable	
PSU Redundancy		Dual redundant and alarmed. Diode OR. Hot swappable	
Matrix Card		Field replaceable	
CPU		Field replaceable	
MTTR		20 minutes (15 minutes to retrieve spare part and 5 mins to replace) Applies to LRUs only and assumed in-house stock	
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		Indoor use only	
Humidity		20 to 90% non-condensing	
Altitude		2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) *Above Mean Sea Level*	
Spec. Version		1.1	

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.

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