

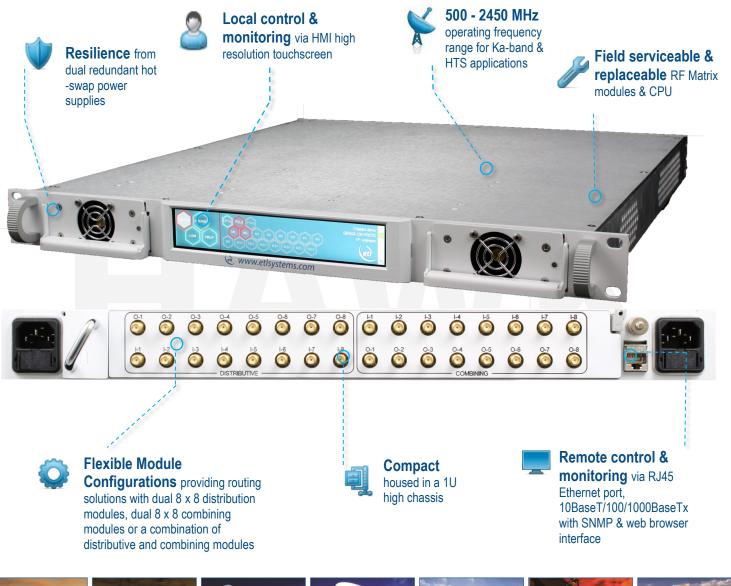
Model Number: HWK-10 & HWK-10C

Hawk Series Dual 8 x 8 Extended L-band Matrix For Uplink & Downlink applications

Typical applications:

- Small Ka/HTS gateway terminals
- LEO gateways
- Oil & Gas
- Deployable VSAT terminals

The 1U Hawk Matrix has capacity for two 8x8 field replaceable matrix cards – which can be the combining HWK-10C (fan-in) or distributive HWK-10 (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. Single 8x16 & 16x8 configurations are also available - please enguire.





www.etlsystems.com

V 1.2 E&OE



Model Number: HWK-10 & HWK-10C

Technical specifications and operating parameters

		RF Parameters	RF Parameters	
Routing		HWK-10 - Distributive Any input can be connected to any number of outputs	HWK-10C - Combining Many inputs can be routed to each outputs	
Frequency Range		500 to 2450 MHz (Extended L-band)		
Capacity		2 Matrix Cards – each 8 x Input and 8 x Output.		
Configurations		2 x Distributive / 2 x Combining	/ 1 x Distributive & 1 x Combining	
Switching Time		< 50ms (From receipt of a command to implementation of path change)		
Input & Output Ports		50Ω SMA (All ports DC Blocked)		
Gain		0±1 dB typical, mean across band	0±1 dB typical, mean across band	
Gain Flatness		±1.5 dB	±1.0 dB	
Any 36MHz		±0.25 dB	±0.25 dB	
Input Return Loss		Typical: 20 dB, Minimum: 18 dB	Typical: 18 dB, Minimum: 16 dB	
Output Return Loss		Typical: 20 dB, Minimum: 18 dB	Typical: 18 dB, Minimum: 16 dB	
Isolation Minimum between any 2 ports	Input-Input	60 dB	60 dB	
	Output-Output	60 dB	60 dB	
	Input-Output	55 dB <2150MHz, 50 dB >2150MHz	55 dB <2150MHz, 50 dB >2150MHz	
Noise Figure		16 dB typical	24 dB typical, with one input routed to one output	
1dB GCP Gain Compression Point, output power	<850 MHz	+0 dBm	+12 dBm	
	<1500 MHz	+3 dBm	+10 dBm	
	>1500 MHz	+5 dBm	+6 dBm	
OIP3 3rd order intercept point	<1500MHz	Typical 18 dBm, Minimum 16 dBm	Typical 28 dBm, Minimum 25 dBm	
	>1500MHz	Typical 22 dBm, Minimum 20 dBm	Typical 25 dBm, Minimum 20 dBm	
Group Delay		<1.0 ns across operational bandwidth	<1.0 ns across operational bandwidth	
AC Input / AC Consumption		AC Input: 85-264Vac 50/60Hz AC Consumption: 150W		
Input RF Power		+20 dBm Absolute Maximum.		
		System Control & Reliability		
Local Control		HMI capacitive touch screen: Field replaceable		
Remote Control & Monitoring		Ethernet via RJ45, 10BaseT/100/1000BaseTx. ETL TCP/IP, SNMP & Web browser interface.		
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		
MTBF		Chassis, Switch Card & CPU: >250,000		
		Physical & Environment		
Dimensions		1U high x 600mm 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		2,000m AMSL (Operational) 8,000m AMSL (Storage) Above Mean Sea Level		

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.

ETL SYSTEMS LIMITED Coldwell Radio Station Madley Hereford England HR2 9NE TELEPHONE +44 (0)1981 259020

EMAIL info@etlsystems.com FACSIMILE +44 (0)1981 259021

WEB www.etlsystems.com





