

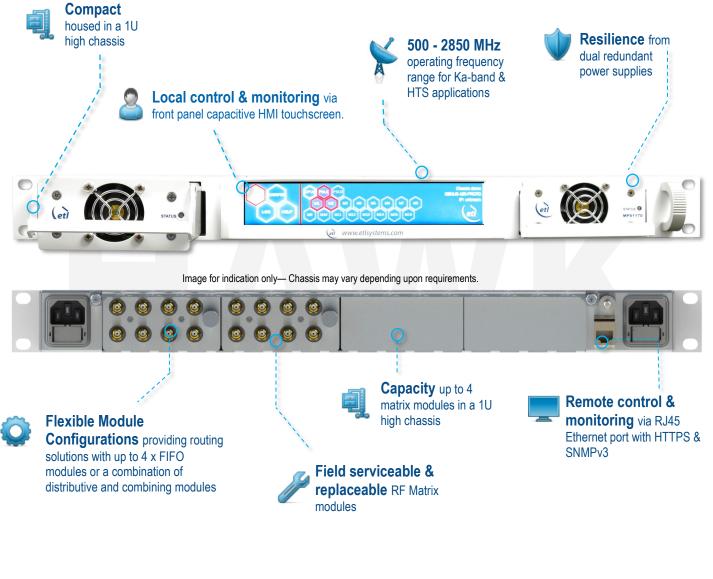
# Hawk Series 4 x 4 Extended L-band Matrix

### For Uplink & Downlink applications

The 1U Genus chassis has capacity for up to 4 off 4x4 Hawk matrix modules – which can be combining (fan-in) or distributive (fan-out) or FIFO (fan-in, fan-out) – for uplink and downlink applications. The Genus chassis can be fitted with any combination of modules depending on application, but is ideally suited for smaller LEO gateways with small number of modems, where modem redundancy is required, smaller number of modems and antennas and remotely accessed teleports. Other module types from the Genus range such as Frequency Converters or RF over Fibre can also be fitted into the chassis.

#### Typical applications:

- Ka/HTS gateway terminals
- LEO gateways
- Small teleports
- Uplink and downlink
  applications
- Oil & Gas
- Deployable VSAT terminals





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## ETL Systems

Excelling in RF Engineering

### Model Number: HWK-G1S-15-F44-x5x5

RF Parameters			ers
Routing		FIFO ( Fan-In Fan-out)	
Frequency Range		500 to 2850 MHz (Extended L-band)	
Capacity		Up to 4 matrix modules in 1U parent chassis – each 4 x Input and 4 x Output.	
Switching Time		< 50ms (From receipt of a command to implementation of path change)	
Power Consumption		<5W	
RF Connectors		50 $\Omega$ SMA (others available, please enquire with ETL)	50 Ω TNC
Gain (dB) Typ., mean across band		0±1	0±1
Gain Flatness (dB)	850-2450 MHz	±1	±1.6
	500-2850 MHz	±1.25	±1.6
	500-3150	±2.5	±2.5
Any 36 MHz	500-2850 MHz	±0.25	±0.25
	2850-3150 MHz	±0.5	±0.25
Input Return Loss (dB)	Тур.	14	12
	Min	10	7.5
Output Return Loss (dB)	Тур.	14	12
	Min	10	7.5
Isolation (dB)	Input-Input	<2150 MHz 60 dB, >2150 MHz 50dB	
Min. between any two ports	Output-Output	<2150 MHz 60 dB, >2150 MHz 50dB	
	Input-Output	<2150 MHz 55 dB, >2150 MHz 50dB	
Noise Figure (dB)	Maximum.	15 dB, with one input routed to one output	
1dB GCP (dBm)	Minimum.	+5 dBm , Output power,	
OIP3 (dBm), Minimum.	<2450 MHz	+ 20 dBm	
	>2450 MHz	+18 dBm	
OIP2 (dBm), Minimum.	<2450 MHz	+ 34 dBm	
	>2450 MHz	+26 dBm	
Group Delay		<1.0 ns	
PSU Redundancy		Dual redundant and alarmed Diode OR. (see parent chassis datasheet for more details)	
Matrix Module		FIFO: Field replaceable	
		System Control	
Remote Control & Monitoring		Ethernet via RJ45 with HTTPS & SNMPv3, 10BaseT/100 Base Tx. ETL TCP/IP, SNMP & Web browser interface. Via parent chassis	
		Physical & Environment	
Dimensions		4 Slot Genus 1U for SMA Connectors	6 Slot Genus 1U for TNC Connectors
Weight / Colour		<0.5 kg / RAL9003—White (Semi-matte)	
Temperature		Operating: 0 to 45°C / Storage: -20°C to +75°C	
Location		20 to 90% non-condensing	
Humidity Altitude			
		2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level	
Spec Version		1.2	

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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