

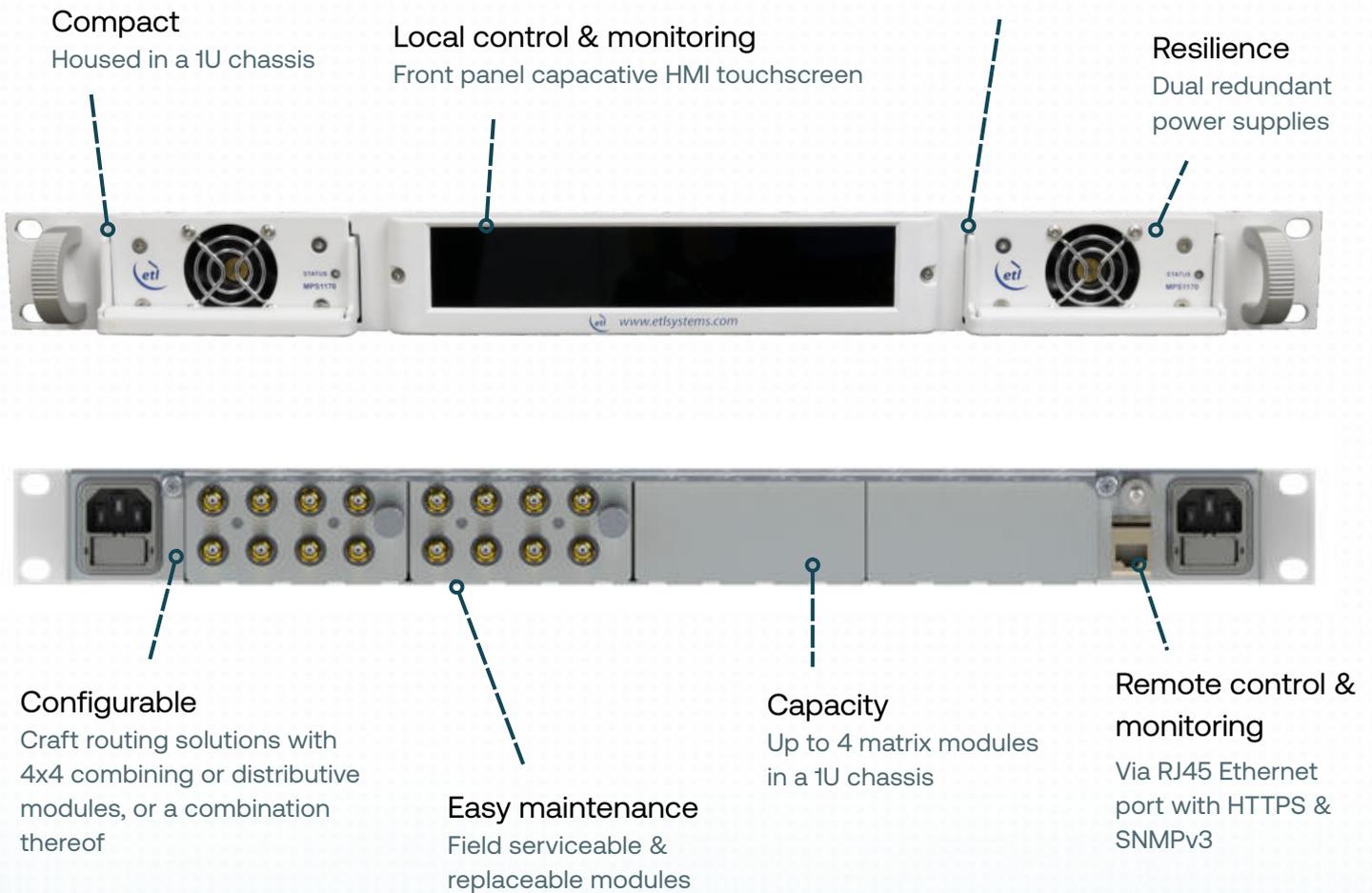
# Hawk Series 4x4 Extended L-band Matrix

## for 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) 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.

500 - 3150MHz

Operating frequency range for Ka-band & HTS applications





Routing		Distributive
Frequency Range		500 to 3150MHz (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 Ω SMA
Gain, Typ., mean across band		0±1 dB
Gain Flatness		850-2450MHz: ±0.75 dB    500-3150MHz: ±2.5 dB
Any 36MHz		850-2450MHz: ±0.15 dB    500-3150MHz: ±0.25 dB
Input Return Loss		Typ. 14 dB    Min. 10 dB
Output Return Loss		Typ. 14 dB    Min. 10 dB
Isolation Min. between any 2 ports	Input-Input	55 dB
	Output-Output	55 dB
	Input-Output	50 dB
Noise Figure	850 - 2450MHz	Typ. 7 dB, with one input routed to one output
	500 - 3150MHz	Typ. 9 dB, with one input routed to one output
1dB GCP Output power, Typ.	850 - 2450MHz	+0 dBm
	500 - 3150MHz	-3 dBm
OIP3, Typ.	850 - 2450MHz	+15 dBm
	500 - 3150MHz	+12 dBm
OIP2, Typ.		+22 dBm
Group Delay		<1.0 ns
PSU Redundancy		Dual redundant and alarmed. Diode OR.
Matrix Module		Distributive: Field replaceable
Remote Control & Monitoring		Ethernet via RJ45 with HTTPS & SNMPv3, 10BaseT/100 Base Tx. ETL TCP/IP, SNMP & Web browser interface. Via parent chassis.
Dimensions		4 x Genus 1U slots
Weight/Colour		<0.5 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		1.2

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.