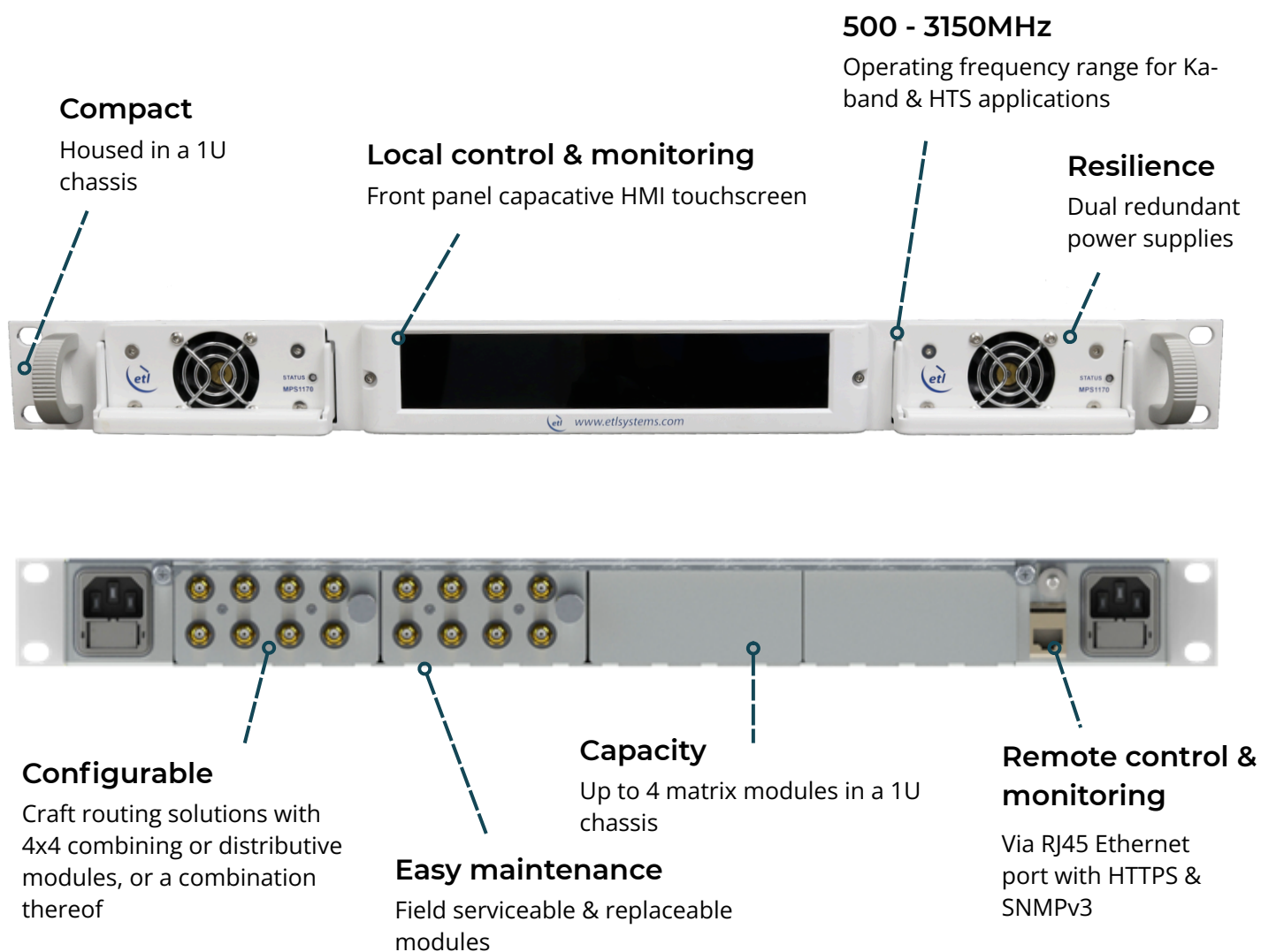


## Hawk Series 4x4 Extended L-band Matrix

for Uplink and 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.



RF Parameters			
Routing		FIFO (fan-in fan-out)	
Frequency Range		500 to 2850MHz (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		50Ω SMA	50Ω TNC
Gain (dB) Typ., mean across band		0±1	0±1
Gain Flatness (dB)	850 - 2450MHz	±1.0	±1.6
	500 - 3150MHz	±1.25	±1.6
Any 36MHz	850 - 2450MHz	±0.25	±0.25
	500 - 3150MHz	±0.5	±0.25
Input Return Loss (db)	Typ.	14	12
	Min.	10	7.5
Output Return Loss (dB)	Typ.	14	12
	Min.	10	7.5
Isolation (dB) Min. between any 2 ports	Input-Input	<2150 MHz 60 dB, >2150 MHz 50dB	
	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	
Output power, Typ.			
OIP3 (dBm), Typ.	<2450 MHz	+20 dBm	
	>2450 MHz	+18 dBm	
OIP2 (dBm), Min.	<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 & Environmental			
Dimensions		4 x Genus 1U slots for SMA Connectors	6 x Genus 1U slots 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		Indoor use only	
Humidity		20 to 90% non-condensing	
Altitude		2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) <i>Above Mean Sea Level</i>	
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.