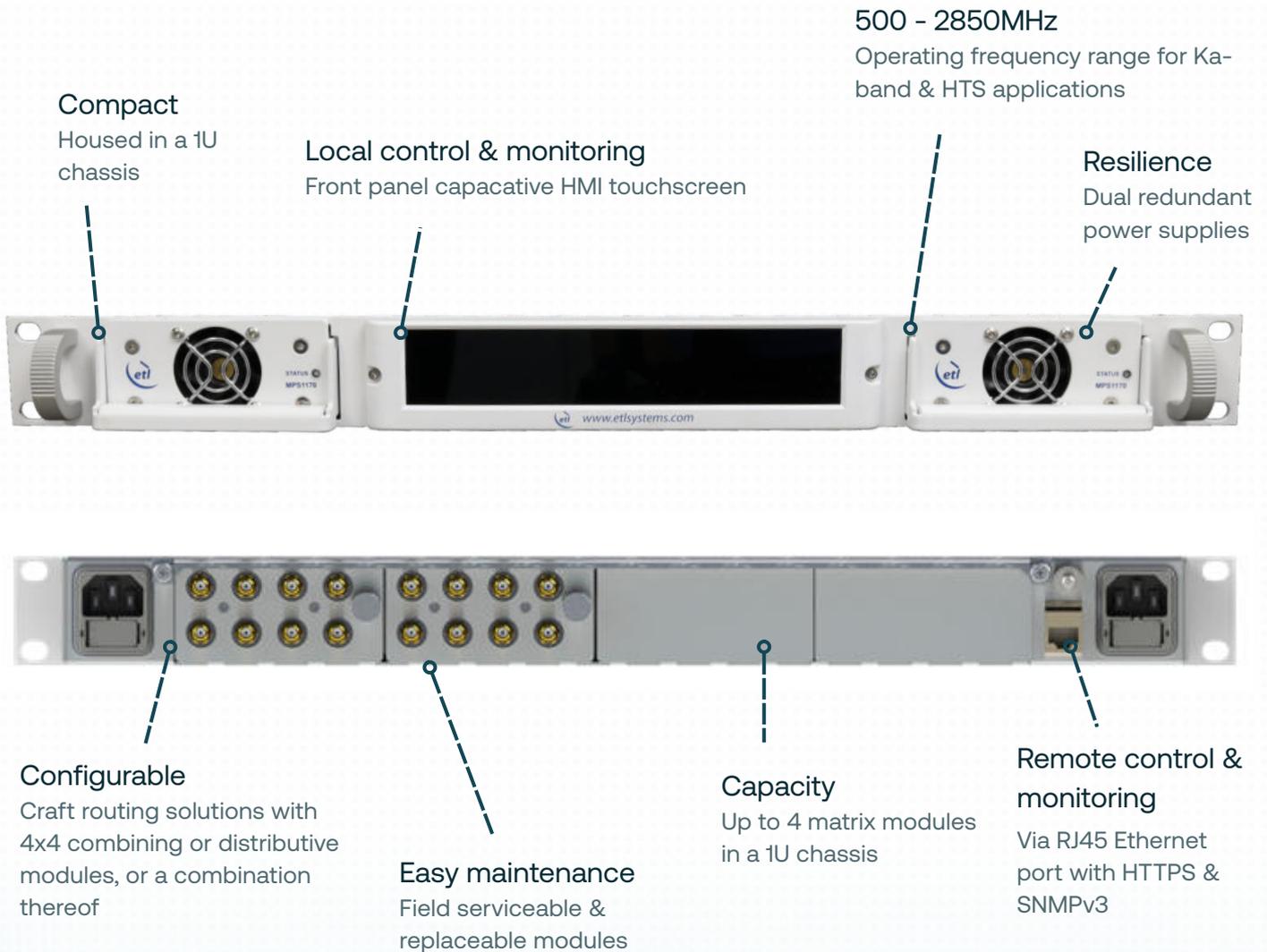


Hawk Series 4x4 Extended L-band Matrix

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 BNC	50Ω TNC	75Ω BNC	75Ω F-type	
Gain (dB) Typ., mean across band	0±1	0±1	0±1	0±1	0±1	
Gain Flatness (dB)	850 - 2450MHz	±1.5	±1.5	±1.6	±2.0	±2.0
	500 - 2850MHz	±1.75	±1.75	±1.75	±2.0	±2.0
Any 36MHz	500 - 2850MHz	±0.25	±0.25	±0.25	±0.5	±0.5
Input Return Loss (db)	Typ.	14	14	12	14	12
	Min.	10	10	7.5	10	8
Output Return Loss (dB)	Typ.	14	14	12	14	12
	Min.	10	10	7.5	10	8
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) Output power, Typ.	Minimum	+5 dBm, output power				
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) 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.