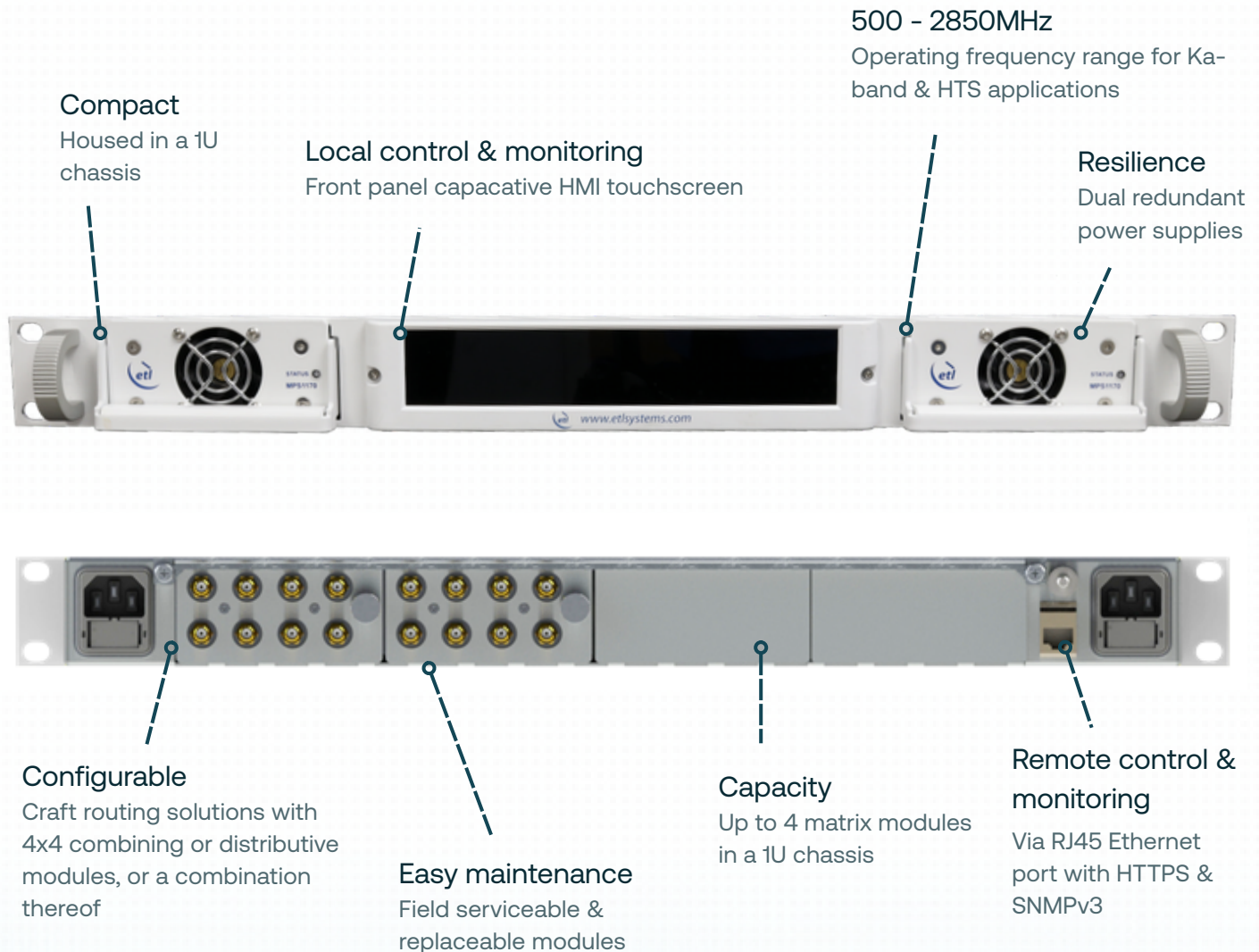


Hawk Series 4x4 Extended L-band Matrix

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	75Ω BNC	75Ω F-type
Gain (dB) Typ., mean across band		0±1	0±1	0±1	0±1
Gain Flatness (dB)	850 - 2450MHz	±1.5	±1.5	±2.0	±2.0
	500 - 2850MHz	±1.75	±1.75	±2.0	±2.0
Any 36MHz	500 - 2850MHz	±0.25	±0.25	±0.5	±0.5
Input Return Loss (db)	Typ.	14	14	14	12
	Min.	10	10	10	8
Output Return Loss (dB)	Typ.	14	14	14	12
	Min.	10	10	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			
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		10,000 feet AMSL (Operational) / 30,000 feet AMSL (Storage)			
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.