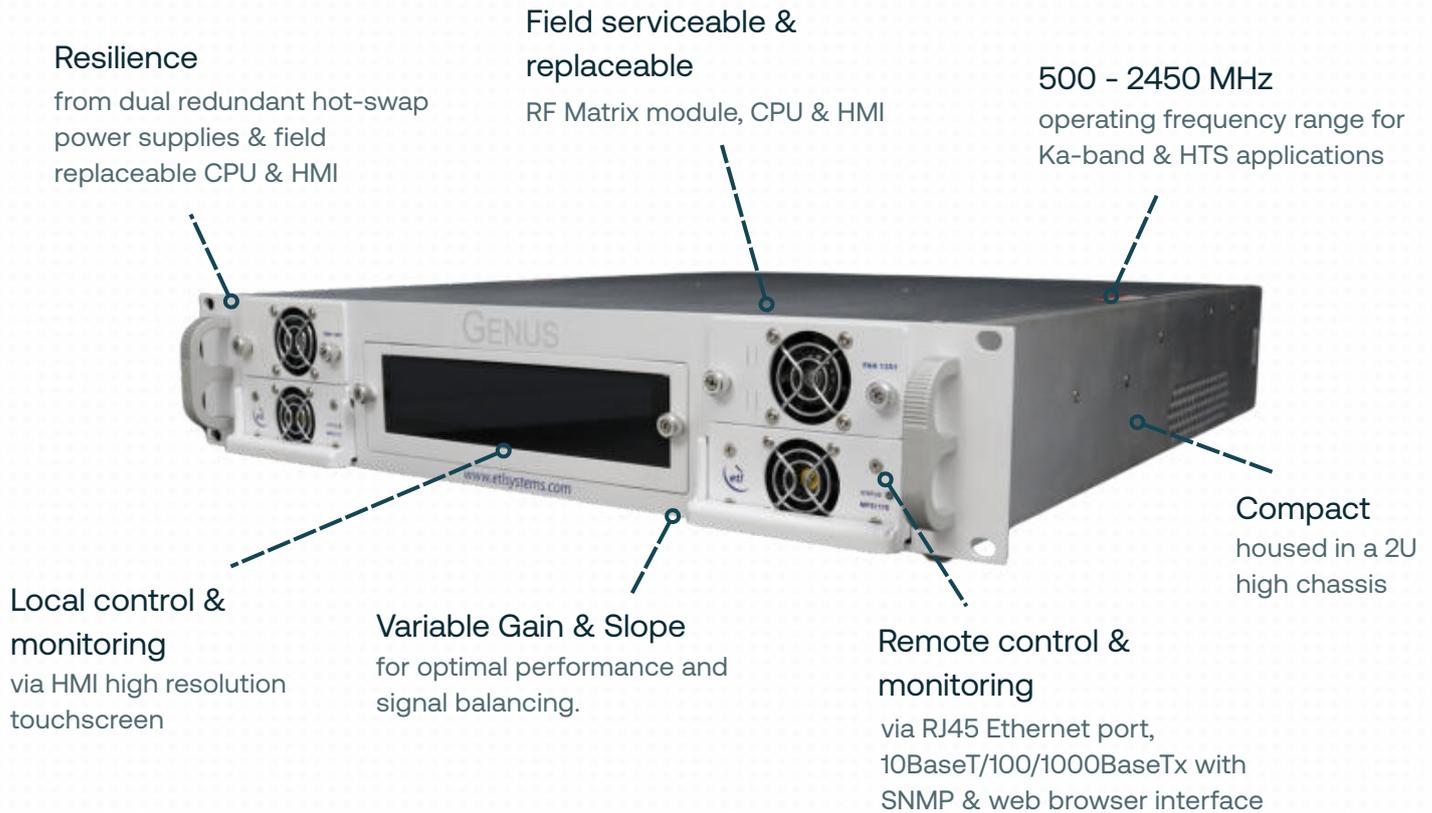


# Hawk Series 32x8 Extended L-band Combining Matrix

## for Uplink applications

32x8 Combining extended L-Band Matrix with output variable gain/slope/RF detection. Ideally suited to for smaller to mid-size gateways with multiple modems and a smaller numbers of antennas, where modem redundancy is required, or remotely accessed teleports / gateways.



Chassis Specification	
Dimensions/Weight/Colour	2U high x 550mm deep x 19" wide / <10kg / RAL9003 - white (semi-matte)
Capacity	17 module slots. Note: Actual modules may require >1 slot. Refer to required module spec table.
Temperature	Operating: 0°C to +45°C    Storage: -20°C to +75°C
Location/Humidity/Altitude	Indoor use only / 20 to 90% non-condensing / 2,000m AMSL (Operational) 8,000m AMSL (Storage) Above Mean Sea Level
Control & Monitoring	Local: HMI, capacitive touch screen Remote: Ethernet via RJ45, 10BaseT/100 BaseTx. ETL TCP/IP, SNMPv2/3, HTTPS & built-in web server. HMI and CPU field replaceable.
MTTR	20 minutes (15 minutes to retrieve spare part and 5 mins to replace). Applies to LRUs only and assumed in-house stock.
AC Input/Consumption	85-264Vac 50/60Hz / 275W max. consumption at steady state
PSU Redundancy	Dual redundant and alarmed. Diode OR. Hot swappable.
Input & Output Ports	Dependant upon module fitted



RF Parameters		
Frequency Range	500 to 2450 MHz (Extended L-band)	
Capacity	32 x 8 Combining	
Switching Time	< 50ms (From receipt of a command to implementation of path change)	
RF Input Power Sensing Range	0 to -50 dBm	
AC Input / AC Consumption	85-264Vac 50/60Hz / 100W	
Input & Output Ports	50Ω SMA (All ports DC Blocked)	
Input RF Power (Absolute maximum)	+24 dBm	
Gain (typical, mean across band)	Max	15±1 dB
	Min	-10±1 dB
Gain Flatness	850-2150MHZ	±1.5 dB
	500-2450MHZ	±2.5 dB
	Any 36MHz	±0.25 dB
Slope Control	0-6 in 1dB steps ±0.5dB	
Gain Step Resolution	0.5±0.25 dB	
Gain Variation vs Temperature	0.05dB/°C	
Input Return Loss	Typical: 18 dB, Minimum 2GHz: 14 dB, Minimum 2.45GHz: 12dB	
Output Return Loss	Typical: 18 dB, Minimum 2GHz: 14 dB, Minimum 2.45GHz: 12dB	
Isolation Min. between any 2 ports	Input-Input	60 dB
	Output-Output	60 dB
	Input-Output	55 dB <2150MHz, 50 dB >2150MHz
Noise Figure	Min gain: 28 dB, Unity gain: 28 dB, Max gain: 28 dB	
1dB GCP (1dB Gain Compression point, output power @ 0dB slope setting)	Min gain -5 dBm, Unity gain +5 dBm, Max gain +15 dBm	
OIP3 (3rd order intercept point @ 0dB slope setting)	Min gain: Typical 10 dBm, Minimum 7 dBm Unity gain: Typical 20 dBm, Minimum 17 dBm Max gain: Typical 30 dBm, Minimum 27 dBm	
Group Delay	<1.0 ns across operational bandwidth	
Spurious	<80 dBm (In-band)	
Spec Version	0.1	

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.