



ETL Systems

New technologies
in RF distribution

HWK-G2S-20C-S5S5

Hawk Series 32 x 8 Combining Extended L-Band Matrix For Uplink applications

Typical applications:

- Small Ka/HTS gateway terminals
- LEO gateways
- Oil & Gas
- Deployable VSAT terminals

8x32 Combining extended L-Band Matrix. 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.



Local control & monitoring via HMI high resolution touchscreen



500 - 2450 MHz
operating frequency
range for Ka-band &
HTS applications



Field serviceable & replaceable RF Matrix modules, CPU & HMI



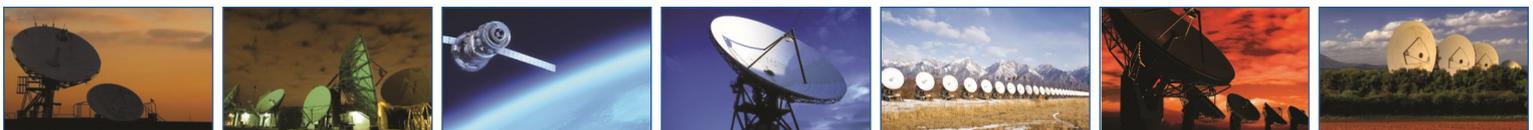
Resilience from dual redundant hot-swap power supplies and hot-swap fan module



Compact housed in a 2U high chassis



Remote control & monitoring via RJ45 Ethernet port, 10BaseT/100/1000BaseTx with SNMP & web browser interface





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RF Parameters		
Frequency Range	500 to 2450 MHz (Extended L-Band)	
Capacity	32 x 8 Combining	
Switching Time	< 50 ms (From receipt of a command to implementation of path change)	
AC Input	85-264Vac 50/60Hz	
AC Consumption	100W	
Input & Output Ports	50Ω SMA (All ports DC Blocked)	
Input RF Power (Absolute maximum)	+20 dBm	
Gain (typical, mean across band, at each output)	0±1 dB	
Gain Flatness	<2150MHz	±1.25 dB
	Full Band	±2.0 dB
Any 36MHz	<2150MHz	±0.25 dB
	Full Band	±0.5 dB
Input Return Loss	Typical: 18 dB, Minimum 2GHz: 14 dB, Minimum 2.45GHz: 12 dB	
Output Return Loss	Typical: 18 dB, Minimum 2GHz: 14 dB, Minimum 2.45GHz: 12 dB	
Isolation Minimum between any 2 ports	Input-Input	60 dB
	Output-Output	60 dB
	Input-Output	55 dB <2150MHz, 50 dB >2150MHz
Noise Figure	26 dB (Typical with one input routed to one output)	
1dB GCP (1dB Gain Compression point, output power)	+10 dBm	
OIP3 (3rd order intercept point)	Typical 25 dBm, Minimum 20 dBm	
Group Delay	<1.0 ns	
Spurious	<-80 dBm	
Spec Version	0.1	

Redundancy & Hot Swap		
PSU Redundancy	Dual redundant and alarmed	
CPU Redundancy	N/A	
Matrix card	Field replaceable	
Control & Monitoring		
Local Control & Monitoring	HMI	
Remote Control & Monitoring	Ethernet via RJ45, 10BaseT/100 Base Tx. ETL TCP/IP protocol, SNMP, Built-in Web server	
System Control & Reliability		
MTTR	20 minutes 15 minutes to retrieve spare part and 5 mins to replace.	
MTBF (hours)	Chassis	>250,000
	Matrix Card	>250,000
	CPU	>250,000
Environmental		
Operating Temperature	0 to 45°C	
Gain Variation vs Temperature	0.05dB/°C	
Storage Temperature	-20°C to +75°C	
Location	Indoor use only	
Humidity	20 to 90% non-condensing	
Altitude (operational)	2,000m AMSL	
Altitude (storage)	8,000m AMSL	
Physical		
Weight	<10 kg	
Dimensions	2U high x 550mm deep x 19" wide	
Front Panel Colour	RAL9003 – White (Semi-Matte)	

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.

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