

Alto L-Band Redundant

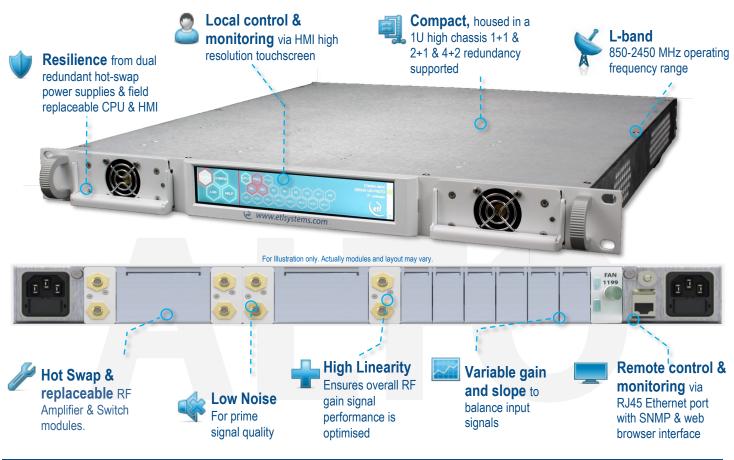
Amplifier with low noise, high linearity, variable gain and slope control

Model Number: ALT-G1R-S3-101

Typical applications:

- Teleports & Earth Stations
- Satellite Operations
- Government & Defence applications
- Telemetry, Tracking & Command
- High Resilience applications

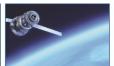
ALT-G1R-S3-101 is an L-band hot swap low noise & high linearity redundant amplifier, with variable gain and slope control designed to fit into the 1U Genus chassis. The 1U redundancy chassis has the capacity for 1+1. 2+1 and 4+2 hot-swap module configurations.



Chassis - Specification		
Dimensions / Weight / Colour	1U high x 550mm deep x 19" wide / <10 kg / RAL9003—White (Semi-matte)	
Capacity	Total of 17 module slots. Note that 1 slot may be used for fan (if required) and 1 slot may be used for 10 MHz EXT inject module (if required). 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 / 10,000 feet AMSL (Operational) 30,000 feet AMSL (Storage) Above Mean Sea Level	
Control & Monitoring	Local: HMI touch screen Remote: Ethernet via RJ45, 10BaseT/100 BaseTx. TCP/IP, SNMP V3 & HTTPS & Web browser interface HMI and CPU field replaceable. Each module independently monitored and reported.	
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 / 150W	
PSU Redundancy	Dual redundant and alarmed Diode OR. Hot swappable	
Input & Output ports	Dependant upon module fitted	















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Smart Amplifier Module
Compact form factor allowing multiple
modules to be housed in 1U chassis. Each module uses 1 slot in the chassis.

		Smart Amplifier Module - RF Parameters		
Model Numbers		ALT-G1R-S3-101 (The spec below is for ALT-G1R-S3-101 in 4+2 redundancy configuration with SWF-G1R-S5-103-S5S5)		
Frequency Range		850-2450 MHz		
RF ports		50Ω SMA		
Gain	Max.	36±2 dB		
	Min.	-13±2 dB		
Gain Flatness	850 to 2450 MHz	±1.2 dB		
	Any 36 MHz	±0.3 dB		
Gain Steps		0.25±0.15 dB		
Slope Control Range		0-5 dB (Pivot point at 2450 MHz)		
Slope Control Steps		1±0.25 dB		
Input Return Loss	;	14 dB typ. 10 dB min		
Output Return Loss		14 dB typ. 10 dB min		
Reverse Gain		< -60 dB Typical		
Noise Figure	Тур.	6.0 dB At max gain setting		
	Max.	8.0 dB At max gain setting		
1dB GCP	Тур.	18 dBm At max gain setting		
	Min.	15 dBm At max gain setting		
OIP3	Тур.	30 dBm At max gain setting		
	Min.	27 dBm At max gain setting		
OIP2	Тур.	40 dBm At max gain setting		
	Min.	36 dBm At max gain setting		
In band, signal independent spurii		<-85 dBm max. Very low level spuria from CPU clock, switch mode PSU and other control electronics inside the chassis		
Operating Temperature		0 to 50°C , for indoor use only		
Storage Temperature		-20°C to +75°C . Equipment not powered		
Altitude		10,000ft/3000m AMSL		
Humidity		20 to 90% non-condensing RH		
MTBF		>150,000 hrs. MTBF of each amp module. These are hot-swap		
Maximum Input Level		+20 dBm. For no damage. None operational.		
Module Weight		0.35 kg		
Spec Version		0.2		

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.













