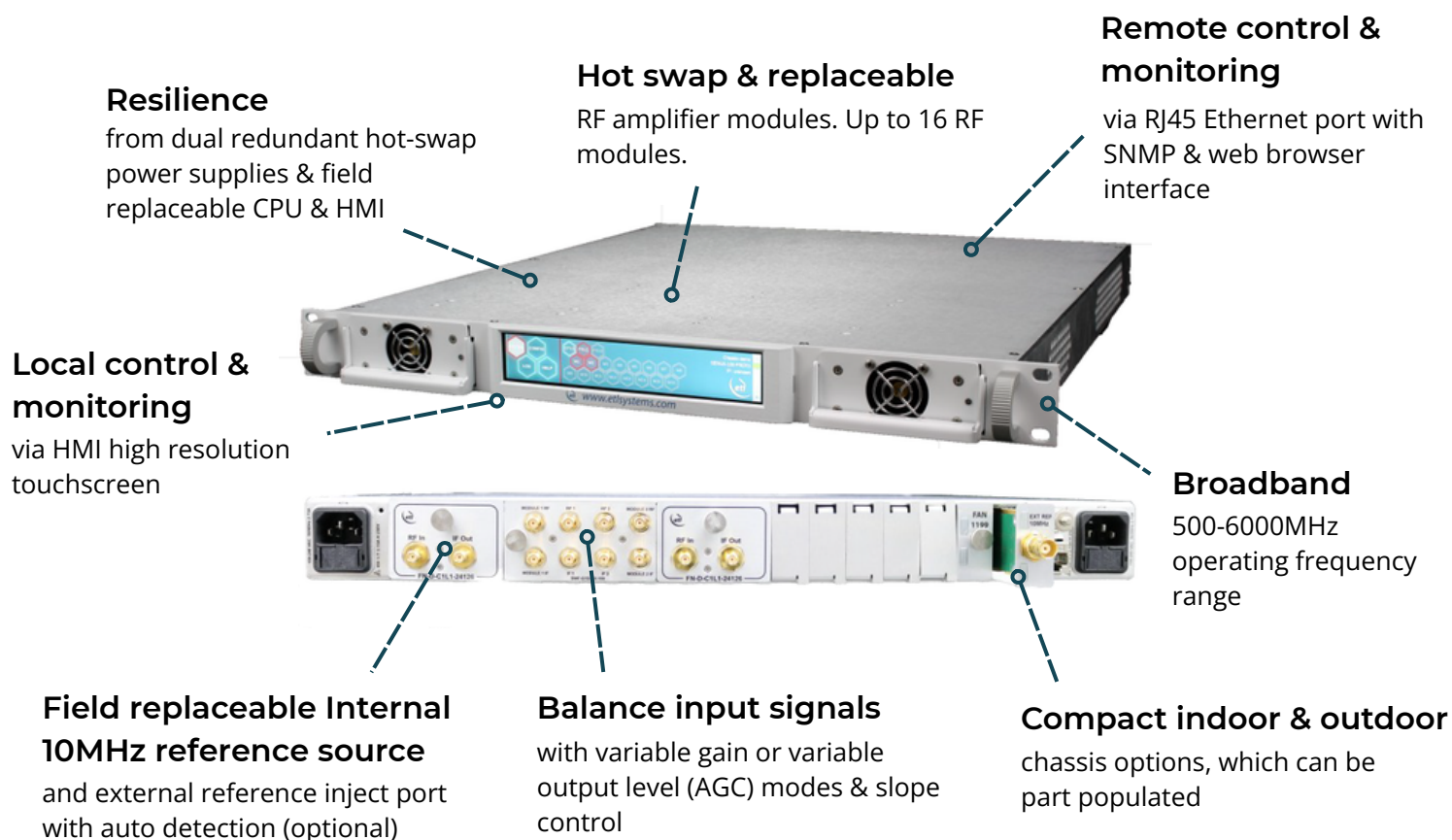


Alto Broadband Attenuator Module

with variable gain

The broadband hot swap variable attenuation module is designed to work in the Genus 1U chassis series, operating over 500 to 6000MHz. The module has -5 to -55dB variable gain range, and the chassis has the capacity to house up to 16 amplifier modules.

Other modules types are also available, these can be mixed and housed in the Genus chassis.



Chassis Specification	
Dimensions/Weight/Colour	1U 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



Attenuator Module

Compact form factor allows multiple modules to be housed in the 1U GENUS chassis. Each module occupies 1 slot in the chassis.

Variable gain for signal optimisation.

Smart Attenuator Module - RF Parameters			
Model Numbers		ALT-G1S-B3-170	
Frequency Range		500 - 6000 MHz	
Size		1 slot wide	
MTBF		>150,000 hrs. MTBF of each amp module. These are hot-swap	
RF Connectors		50Ω SMA	
Gain		-5 ± 2.0 dB max. -55 ± 2.0 dB min.	
Gain Flatness	500 - 6000MHz	±1.75 dB	When set to 0dB slope. In manual gain control mode, not AGC.
	Any 36MHz	±0.25 dB	
Gain Steps		0.25 ± 0.15 dB in manual gain mode	
Input Return Loss		18 dB typ. 14 dB min.	
Output Return Loss		18 dB typ. 14 dB min.	
Input 1dB GCP		28 dBm min.	
IIP3		50 dBm min.	
In band, signal independent spurii		<-85 dBm max.	Very low level spurii from CPU clock, switch mode PSU and other control electronics inside the chassis.
Maximum Input Level		+20 dBm	For no damage. Non-operational.

Interface, Monitoring & Alarms		
Control Method	Local and remote as provided by selected chassis	
LNB Power	None	
Environmental		
Operating Temperature	-0°C to +50°C	Up to 8 modules in a chassis.
	-0°C to +45°C	Up to 16 modules in a chassis.
Storage Temperature	-20°C to +75°C	
Location	Indoor use only, within parent GENUS chassis	
Humidity	20 to 90% non-condensing, relative humidity	
Altitude	10,000ft / 3,000m above mean sea level	
Physical Dimensions & Parameters		
Weight	<0.35kg typ.	

The performance quoted above is for a standalone amplifier. For in-chassis performance, see relevant spec. tables.

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.