



ETL Systems

New technologies
in RF distribution

Model Number: GNS-106-1U

Genus 1U Chassis

Flexible & resilient RF signal management

The Genus chassis has a modular design which can house any combination of compatible modules within the unit. Supplying operators with a flexible and scalable solution, that reduces spare parts and rack space requirements.

The 1U chassis houses up to 17 RF modules including Amplifiers, BUC/LNB Power Supply's, Frequency Converters, Matrices, RF over Fibre, Redundancy Switches and Test Loop Translators, which can be mixed. Providing a compact 1U system that is smaller in comparison with traditional 19" solutions, which could require 2U, 3U, 4U or more to achieve the same functionality. The Genus chassis provides a cost-efficient solution with field-replaceable components.

The RF modules are field-serviceable and can be inserted whilst the shelf is in service, giving excellent levels of flexibility and resilience. With additional reliability from dual redundant hot-swap power supplies & field serviceable RF modules, HMI, CPU and optional user replaceable internal and external 10MHz reference source.

Typical applications:

- Teleports, ground stations, maritime high resilience applications and unmanned sites.
- High resilience RF distribution where single points of failure can be minimised.
- Redundancy applications for remote satellite teleports.
- V/HTS gateways
- Signal distribution – Amplifiers, BUC/LNB Power Supply's, Frequency Converters, Matrices, RF over Fibre, Redundancy Switches, Test Loop Translators are available.



Compact & flexible 1U chassis holding up to 17 RF modules, which can be mixed.



Local control & monitoring via front panel capacitive HMI touchscreen.



10MHz reference source Optional user replaceable internal and external 10MHz reference & distribution source. (refer to separate datasheet)



Remote control & monitoring via RJ45 Ethernet via RJ45, 10BaseT/100BaseTx, ETL TCP/IP protocol, SNMPv3 & Web Browser Interface



Secure Communications with SNMPv3, HTTPS



Flexible Signal Distribution
Frequency converters, Redundancy Switches (N+1), RF Over Fibre, Matrices and Power Supply Modules are available.



Resilience from dual redundant hot-swap power supplies & field serviceable RF modules, HMI & CPU



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Technical specifications and operating parameters

General Specifications	
Capacity	Up to 17 RF modules Note: Actual number dependent upon module type fitted
Dimensions	1U high x 550mm deep x 19" wide
Weight	<10 kg
Colour	RAL9003 White (Semi-Matte)
AC Power	85-264V AC (50/60Hz)
AC Consumption	150W Max. consumption at steady state
PSU	Dual redundant & alarmed, Diode OR, Hot-swap
RF Modules	Single, field replaceable

Control & Monitoring	
Local Control	HMI, capacitive touchscreen
Remote Control & Monitoring	Ethernet via RJ45, 10BaseT/100BaseTx ETL TCP/IP protocol SNMPv3 & HTTPS Built-in Web Server

Environmental		
Operating temperature	0 to 45°C	
Location	Indoor use only	
Storage temperature	-20°C to +75°C Not Powered	
Humidity	20% - 90% non-condensing Relative Humidity	
Altitude	Operational	10,000 ft AMSL (Above Mean Sea Level)
	Storage	30,000 ft AMSL (Above Mean Sea Level)

Reliability		
MTTR	20 minutes 15 minutes to retrieve spare part and 5 mins to replace. Applies to LRUs only and assumed in house stock.	
MTBF	Chassis	>250,000
	CPU	>250,000
Field serviceable components	RF modules, CPU & HMI. [Optional] internal & external 10MHz reference source.	
Hot-swap components	Dual redundant power supplies	

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.

A sample of available RF modules						
Amplifier	BUC/LNB Power Supply	Frequency Converter	Matrices	Redundancy Switch	RF Over Fibre	Test Loop Translator (TLT)

Custom RF modules may be available - If you have a requirement which isn't listed in the RF module options table please contact us.

Example of multiple module configuration

For modules technical specifications, refer to product specific datasheet

