ETL Systems

Excelling in RF Engineering

Model Number: GNS-103-3U

Genus Chassis

Flexible & resilient RF signal management

The Genus is a new generation of equipment for the ground segment to meet today's and future ground segment V/HTS requirements.
The 3U Genus chassis accommodates up to 17 RF modules. These can be inserted whilst the shelf is in service giving excellent levels of flexibility and resilience.

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.
- Signal distribution – 4-way high performance active splitters and combiners are available.

Compact & flexible 3U chassis holding up to 17 RF modules, which can be mixed.

Local control & monitoring via front panel capacitive HMI touchscreen.

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

Secure Communications with SNMPv3, HTTPS

Splitters & combiners 4-way high performance active splitter and combiner RF modules. With fixed / variable gain & slope options, optional dual redundant amplifiers & LNB

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
Dimensions	3U high x 500mm 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

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
Hot-swap components		Dual redundant power supplies

Control & Monitoring	
Local Control	HMI, capacitive touchscreen
Remote Control & Monitoring	Ethernet via RJ45, 10BaseT/100BaseTx ETL TCP/IP protocol SNMP 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	2,000m AMSL (Above Mean Sea Level)
	Storage	8,000m AMSL (Above Mean Sea Level)

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.

RF Module Options								
Module Functionality Options	Operating Frequency	Active	Gain	Slope Compensation	LNB Powering	Dual redundant amplifiers	RF level detection	RF Power Limiting
	L-band		Variable	Variable				
4-way splitter modules	✓	✓	✓	✓	✓	✓	✓	
4-way combiner modules	✓	✓	✓	✓		✓	✓	✓

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

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