



ETL Systems

New technologies
in RF distribution

Model Number: GNS-301-ODU/
GNS-301-ODU-A/GNS-301-ODU-H/
GNS-301-ODU-AH

Genus Outdoor Unit

Flexible & resilient RF signal management

The Genus outdoor unit (ODU) 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 space requirements.

The ODU chassis houses up to 19 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. 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, CPU and optional user replaceable internal and external 10MHz reference source & HMI.

Available with the additional option of air-conditioning units for higher operating temperature environments. (Model GNS-301-ODU-A) and with heating for lower temperature operation (Model GNS-301-ODU-H). See *Air Conditioning/Heating Model Numbers*

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 ODU chassis holding up to 19 RF modules, which can be mixed.



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



Resilience from dual redundant hot-swap power supplies & field serviceable RF modules & CPU
-Optional Air Conditioning units for higher operating temperature
-Optional hot swap HMI.



Partially populated ODU chassis



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



Secure Communications with SNMPv3, HTTPS



Flexible Signal Distribution

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

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General Specifications	
Capacity	Up to 19 RF modules Note: Actual number dependent upon module type fitted. (Can accommodate FALCON 4-slot modules in 2+1 configuration, please enquire if required).
Dimensions	500mm high x 500mm wide x 300mm (TBC for AC option) deep Please confirm size requirements with ETL prior to order.
Weight	<18 kg (TBC)
Colour	RAL9003 White (Semi-Matte)
AC Power	100-240 VAC (50/60Hz) 'A' aircon option is 220-240 VAC only 'A1' aircon option is 100-120 VAC only
AC Consumption	TBC
PSU	Dual redundant & alarmed, Diode OR, Hot-swap
RF Modules	Single, field replaceable & hot-swap
Heat Load	<145W, 495 BTU/Hour (for GNS-301-ODU-A)
Tech Spec Version	1.0

Reliability	
MTTR	15 minutes to replace. Assumes spares at hand. Applies to LRUs only and assumed in house stock.
MTBF	Chassis > 250 000
	CPU > 250 000
Hot-swap / Field serviceable components	Dual redundant power supplies, RF modules, CPU, internal 10MHz reference source & HMI (if fitted)

Air Conditioning/Heating Model Numbers			
Model number	Option	Operating Temperature	Comments
GNS-301-ODU	ODU no Air-conditioning or heater	-20°C to +45°C	-
GNS-301-ODU-H	ODU fitted with Heater	-40°C to +45 °C	-
GNS-301-ODU-A	ODU fitted with Air Conditioning	-20°C to +65°C	Max air ambient 55°C, spot temperature up to 65°C
GNS-301-ODU-AH	ODU fitted with Air Conditioning and Heater	-40°C to +65°C	

RF Module Options						
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.

For modules technical specifications, refer to product specific datasheet

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.

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

Environmental	
Operating temperature	-20°C to +45°C
	-40°C to +65°C with optional Air-Conditioning units -40°C requires optional heat pad Please see Air Conditioning/Heating Model Numbers for options
Location	Outdoor or Indoor use IP65 AC unit reduces IP rating to IP54
Storage temperature	-40°C to +80°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)

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