

# **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)





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













## Technical specifications and operating parameters

| General Specifications |   |  |  |  |  |
|------------------------|---|--|--|--|--|
| Capacity               | Up to 17 RF modules <b>Note</b> : 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   |  |  |  |  |

| 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 ser           |         | RF modules, CPU & HMI. [Optional] internal & external 10MHz reference source.  |  |  |  |
| Hot-swap components |         | Dual redundant power supplies  |  |  |  |

| Control & Monitoring        |  |  |  |  |
|-----------------------------|--|--|--|--|
| Local Control               | HMI, capacitive touchscreen  |  |  |  |
| Remote Control & Monitoring | Ethernet via RJ45, 10BaseT/100BaseTx<br>ETL TCP/IP protocol<br>SNMPv3 & HTTPS<br>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 |  |  |  |  |
| A ltitudo             | Operational | 10,000 ft AMSL (Above Mean Sea Level)      |  |  |  |  |
| Altitude              | Storage     | 30,000 ft 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.

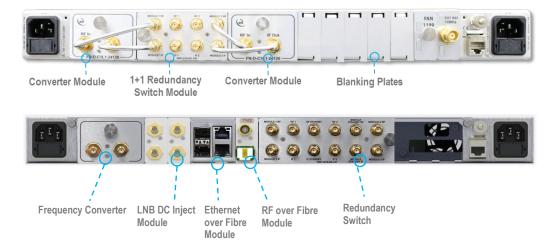
Note 2: Operation beyond the quoted limits stated above may cause instantaneous and

| A sample of available RF modules |                         |                        |          |                   |               |                               |  |  |
|----------------------------------|-------------------------|------------------------|----------|-------------------|---------------|-------------------------------|--|--|
| Amplifier                        | BUC/LNB Power<br>Supply | Frequency<br>Converter | Matrices | Redundancy Switch | RF Over Fibre | Test Loop<br>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





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