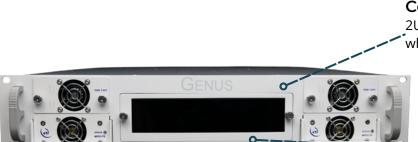


# Genus 2U Chassis

With Internal 10 MHz reference source.

The Genus is a new generation of equipment for the ground segment to meet today's and future ground segment V/HTS requirements.

The 2U 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.



## Compact & Flexible

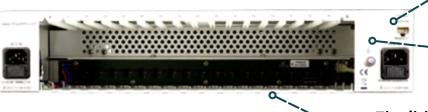
2U chassis holding up to 17 RF modules, which can be mixed.

# Local control & monitoring

via front panel capacitive HMI touchscreen.

# Remote control & monitoring

via RJ45 Ethernet via RJ45, 10BaseT/100BaseTx, ETL TCP/IP protocol, 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.



#### 10MHz reference source

User replaceable internal 10MHz reference & distribution module. External 10MHz input card also available.

### Resillience

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

V1.3 E&OE



		General Specifications		
Capacity		Up to 17 modules		
Dimensions		2U high x 550mm deep x 19" wide		
Weight		<10 kg		
Colour		RAL9003 White (Semi-Matte)		
AC Power		85-264V AC (50/60Hz)		
AC Consumption		275W 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		
IVIIDF	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 SNMPv3 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		
Altitudo	Operational	2,000m AMSL (Above Mean Sea Level)		
Altitude	Storage	8,000m AMSL (Above Mean Sea Level)		

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.



### Internal 10MHz reference and distribution module for 2U Genus chassis.

The integrated 10MHz card has full control and monitoring via the parent chassis HMI or RJ45. The 10MHz reference source is switchable between this on-board ovenised 10MHz oscillator or the customer supplied external reference, connected to slot 17 EXT input module (if fitted). See separate datasheet for external 10MHz reference source inject card options.

Internal 10MHz - High Stability Ovenised Os	scillator			
10±0.000001 MHz				
Sinewave				
-10dBm to +2dBm	±2dBm			
1dB±0.5				
>40dBc				
>50dBc	At 0dBm power out			
>60dBc				
>60dBc				
0dBm 10MHz src				
<-124				
<-143				
<-147	Typical			
<-149				
<-152				
<±5 x 10 <sup>-9</sup>				
< 5 x 10 <sup>-12</sup>				
< ±5 x 10 <sup>-10</sup>				
$< \pm 2 \times 10^{-8}$				
±5 x 10 <sup>-10</sup>				
±5 x 10 <sup>-8</sup>				
10MHz source RF power level. Card operational status	User settable auto switchover for reference source (Int/Ext)			
Field replaceable per year.				
	Sines -10dBm to +2dBm  1dB±0.5  >40dBc >50dBc >60dBc >60dBc  -124 <-143 <-147 <-149 <-152 <table border="1"> <table <="" border="1" td=""></table></table>			

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.