



# Piranha LNB DC Power Inserter Module with 10MHz injection, Custom VDC & 22kHz tone

### Typical applications:

- Teleports & Earth Stations
- Satellite Operations
- Government & Defence applications
- Telemetry, Tracking & Command
- High Resilience applications

LNB DC power inserter module (Bias-T) to fit Genus 1U chassis series. Provides selectable 13VDC/18VDC//24VDC, custom voltage & 22kHz tone to LNBS or similar and RF power in monitoring. 10MHz injection onto port 1 is switchable on/off when fitted to Genus chassis with 10MHz card fitted. Full control and monitoring of the module is possible locally through the parent chassis HMI (if fitted), or remotely via Ethernet.

## DC Inserter Module



**DC Inserter Module**  
Compact form factor allowing multiple modules to be housed in the Genus chassis. Each module occupies 1 slot in the



**10MHz injection** onto port 1 is switchable on/off (when fitted with 10MHz option).



**Variable voltage**  
selectable 13/18/24VDC, custom VDC and 22 kHz tone to LNBS



**Hot Swap & replaceable**  
DC Inserter module

## Chassis Options



**Local control & monitoring** via HMI high resolution touchscreen



**Flexible Module Configurations** choose from a mixture of DC inserter modules.



**Resilience** from dual redundant hot -swap power supplies & field replaceable CPU & HMI



**Remote control & monitoring** via RJ45 Ethernet port with SNMP & web browser interface



**Compact indoor & outdoor** chassis options, which can be part populated



**Field replaceable Internal 10MHz reference source** and external reference inject port with auto detection (optional)



**Secure protocols** with SNMPv3 and HTTPS



Indoor Chassis



Outdoor Unit





PRN LNB DC Power Inserter Module - RF Parameters				
Model Numbers	PRN-G1S-LS2-106			
Size	1 slot wide			
Capacity	Single path			
Frequency Range	850-2500 MHz			
RF Connectors	50Ω SMA	50Ω BNC	75Ω BNC	75Ω F-type
Insertion Loss (dB)	<1.5dB across full band			
Flatness (dB)	Full band	±0.40 dB		
	Any 36MHz	±0.15 dB		
Return Loss (dB)	Typ.	17 dB		
	Min.	14 dB		
Isolation	80 dB min between any two modules			
LNB Voltage	Off, 13V, 18V, 24V Custom—13V to 24V in 1V steps. 22kHz Tone on/off Via port 1. Tolerance ±5% typ.			
LNB Load	Up to 1A Maximum. Overcurrent protection: Current limited to ~1.5A			
10MHz	Switchable on/off to port 1			
Input RF Power	+10dBm. Absolute total maximum			
Module DC Power	12 VDC. Dual redundant 12V bus, module hot swappable			
DC Consumption	34W Full Load. 3W No Load. Max consumption at a steady state.			
RF Power Detect	Range -50dBm to -10dBm total power across band. For indication only			
User Alarms	Via Chassis Ethernet/HMI/Web Interface (upper and lower limits user settable) LNB Current RF Power In			
Remote Control & Monitoring	This module provides monitoring and control via connection with parent chassis. See parent chassis spec for specific details. Voltage/tone/10MHz selection and current monitoring of LNB, and Alarms status monitoring.			
Module Weight	0.18kg			
Module Dimensions	256mm x 42mm x 22mm maximum. PRN-G1x chassis or Genus 1U series mountable.			
Module Finish	Machined Aluminium			
MTBF	>250,000 hours			
Spec Version	1.1			

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.

Note 3: All specs are for 50 Ohm connectors unless detailed otherwise.

ETL SYSTEMS LIMITED  
Coldwell Radio Station  
Madley  
Hereford  
England HR2 9NE

TELEPHONE  
+44 (0)1981 259020

WEB  
[www.etsystems.com](http://www.etsystems.com)

EMAIL  
[info@etsystems.com](mailto:info@etsystems.com)

