Model Number: 26128-AMP101-xxxx

RF Engineering and Custom Build

L-band line amplifier with variable gain & variable slope compensation

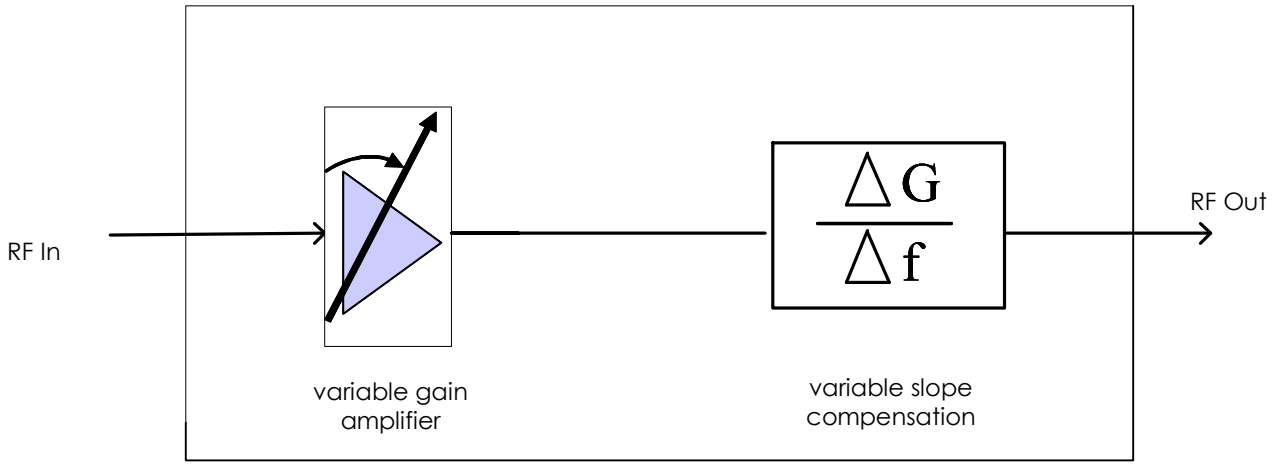
for ETL 26128 Modular System

RF Module 26128-AMP101: L-band line amplifier with variable gain and variable slope compensation. The RF modules are fully hot swappable.

Key Features

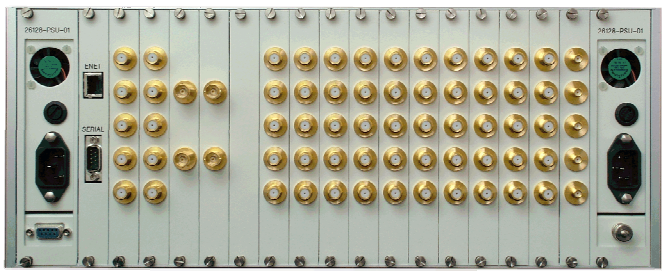
Function: Line Amplifier
Gain: Variable (range of 0-28dB)
Slope Compensation: Variable (0-9dB)
LNB Power: None

Slots: 1 (16 per chassis)
Other: local & remote control
Application Notes: RF Distribution and uplinks, low-cost high resilience application



26128-AMP101 RF Module schematic block diagram

Front view showing hot-swap RF Module



Rear view of chassis

Overview: ETL's model 26128 Modular System offers total flexibility in managing L-band signals. The modular design comprises a chassis with 16 RF slots, two hot swap dual redundant PSUs, and one CPU. Each chassis can hold up to 16 RF modules, which can be hot swapped or hot expanded. This provides excellent resilience and scale ability.

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Technical specifications and operating parameters

RF Parameters					
Capacity		Single Channel			
Module Slots Used		1			
Frequency Range		950-2150 MHz (L-band)			
RF Connectors		50Ω SMA	50Ω BNC	75Ω BNC	75Ω F-type
Flatness	850-2150MHz	±1.5 dB	±1.5 dB	±1.5 dB	±1.5 dB
	Any 36MHz	±0.5dB	±0.5dB	±0.5 dB	±0.5 dB
		0 dB slope selected			
Input Return Loss		15 dB typical	15 dB typical	15 dB typical	15 dB typical
Output Return Loss		15 dB typical	15 dB typical	15 dB typical	15 dB typical
Gain Control Range		28 dB typical			
Gain	Maximum	28 ± 2 dB			1 dB Steps
	Minimum	0 ± 2 dB			
Gain vs. Frequency Slope		0/+3/+6/+9 dB			Selectable locally or remotely
Linearity	1dB GCP	> + 15 dBm		At maximum gain setting, 0dB slope	
		> + 5 dBm		At minimum gain setting, 0dB slope	
	IP3	+ 22 dBm typical			
Crosstalk		40 dB		50 dB typical, spot frequencies 37 dB	
In band Spurii		< - 70 dBm			
Noise Figure		10 dB		At maximum gain setting and 20°C	
		30 dB		At minimum gain setting and 20°C	

Chassis Specifications	
Dimensions	4U high x 450mm deep x 19" wide
Weight	20 kg (fully populated)
Colour	White 00-E-55 semi-gloss (Front panel)
AC Power	85-264V AC (50/60Hz)
PSU	Dual redundant, hot-swap

Power	
LNB Power	None
Power Supply	Chassis is AC mains powered and provides 24V DC to each RF module (see chassis specifications)

System Control	
Local Control & Monitor	Push button & display, accessible via front door
Remote Control & Monitor	Via CPU as fitted, see chassis specifications

Environmental	
Operating temperature	0 to 45˚C
Location	Indoor use only
Storage temperature	-20˚C to +75˚C
Humidity	85% non-condensing

Key Features
Variable Gain
Variable Slope Compensation

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