ETL Systems
New technologies
in RF distribution

Model Number:
ALT-G1S-C5-114-xxxx

Alto C-Band Smart Amplifier Module with low noise, high linearity, and variable gain

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

The C-Band low noise amplifier module is designed to work in the Genus 1U chassis series, operating over 850-4200 MHz. The module has low noise, high linearity, and +38 to 0 dB variable gain. The chassis has the capacity for up to 16 amplifier modules, or can house a mixture of other hot-swap module types.

Amplifier Module

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

Hot Swap & replaceable RF Amplifier module

Variable Gain For signal optimisation.

C-Band 850-4200 MHz operating frequency range

Low Noise
For prime signal quality

High Linearity
Ensures overall RF gain signal performance is optimised

Chassis Options

Local control & monitoring via HMI high resolution touchscreen

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

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

Secure protocols with SNMPv3 and HTTPS

Flexible Module Configurations choose from a mixture of amplifier modules with different operating frequencies.

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

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

Indoor Chassis

Outdoor Unit

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Smart Amplifier Module - RF Parameters			
Model Numbers		ALT-G1S-C5-114-xxxx	
Frequency Range		850-4200 MHz	
RF Ports		50 ohm SMA	
Gain (dB)	Max.	38±2	
	Min.	0±2	
Gain Flatness (dB)	Full band	±1.75	
	850 to 2450 MHz	±1.25	
	3400 to 4200 MHz	±1.25	
	Any 36 MHz	±0.25	
Gain Steps (dB)		0.25±0.15	
Input Return Loss (dB)		18 typ., 12 min	
Output Return Loss (dB)		18 typ., 12 min	
Isolation (dB)	Typ.	60	With amplifiers set at the same gain level. Worst case isolation is between adjacent amps, isolation degrades dB-to-dB for different gain levels.
	Min.	50	
Reverse Gain (dB)		< -60 typ.	
Noise Figure (dB)	Typ.	6.0 At max gain setting	
	Min.	9.0 At max gain setting	
1dB GCP (dBm)	Typ.	16 At max gain setting	
	Min.	13 At max gain setting	
OIP3 (dBm)	Typ.	26 At max gain setting	
	Min.	23 At max gain setting	
OIP2 (dBm)	Typ.	38	
	Min.	35	
In band, signal independent spurii		<-85 dBm max. Very low level spuria from CPU clock, switch mode PSU and other control electronics inside the chassis	
Operating Temperature/Location		0 to 50°C	
Humidity		20 to 90% non-condensing RH	
MTBF		>150,000 hrs. MTBF of each amp module. These are hot-swap	
Maximum Input Level		+20 dBm. For no damage. None operational.	
Module Weight		0.35 kg	
Spec Version		0.1	

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.