Ka Band Solid State or GaN Linear Amplifier

SAGE SatCom

- Industry's most compact and lightest linear Ka Band amplifier
- Directly mounts to antenna feed arm
- Single frequency agile model covers complete frequency band from 29 GHz to 31 GHz
- Solid State or GaN technology provides highest reliability and lowest power consumption

The SAGE SatCom Ka Band amplifier provides linear power in the most compact package available in the industry. The compactness and light weight of the Solid State or GaN Ka power amplifier allows for direct mounting to the antenna feed arm resulting in a superior end solution to larger competing products that require pedestal mounting. Simplifying system planning and logistics, a single frequency agile model covers the complete frequency band from 29GHz to 31GHz. Command and Monitoring is supported through RS-485 and Ethernet interfaces.

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Key Benefits

- Compact and energy efficient
- Solid State or GaN Reliability
- Easy System Integration
- Thermally Efficient
- High Linearity
- Superior Harmonic and Spurious Suppression

Ka Band Linear Power Amplifier Specification

RF Characteristics	
Frequency	27.5 - 31.0GHz
Plinear	5, 12, 20 and 50Watts
Input VSWR	1.5:1 Max
Gain	40 dB +/-2 dB
Gain Flatness @ Maximum Gain	Over RF Output band: ± 2 dB. Max. Over any 125 MHz segment ±0.50 dB Max. Over any 40 MHz segment ±0.3 dB Max.
Mute	-60 dB relative to P-Linear
Gain Variation over operational temp	±2.0 dB max.
Third Order IMD at Plinear combined power of two equal CW carriers	-25 dBc relative to the combined power of two carriers at Plinear
Spurious	-60 dBc max in-band @ P –linear (ETSI EN 301 390 compliant out-of-band)
Harmonics	-60 dBc max. measured at P-Linear
Spectral Regrowth at Plinear	-30 dBc measured at QPSK, 30% Alpha and 1.0 SR
Output VSWR	1.3:1 Max
Max Load VSWR (no damage)	Infinite @ Plinear -3dB
Power Requirement:	
Input voltage	+48VDC (prime), +28VDC, 90 - 264VAC @50/60Hz
Power consumption (typical)	Output power level dependent
Interface:	
RF Input/Output	WR 28 or 2.9mm
Monitor & Control I/0	RS-485 or Ethernet (SNMP/HTTP)
Ethernet Connector	Weatherproof RJ-45
Serial Monitor & Control Connector	Mil-Circ- Bayonet
Power Connector	Mil-Circ- Bayonet
Environmental:	
Operating Temperature Range	-40°C to +60°C
Storage Temperature Range	-40°C to + 85°C
Humidity	100% Condensing
Altitude	10K ft.
Vibration	MIL-STD-810G
Shock	MIL-STD-810G
EMC	Comply with CE EMC directives
Physical:	
Size	Output power level dependent
Weight	Output power level dependent
Fans	Field Replaceable

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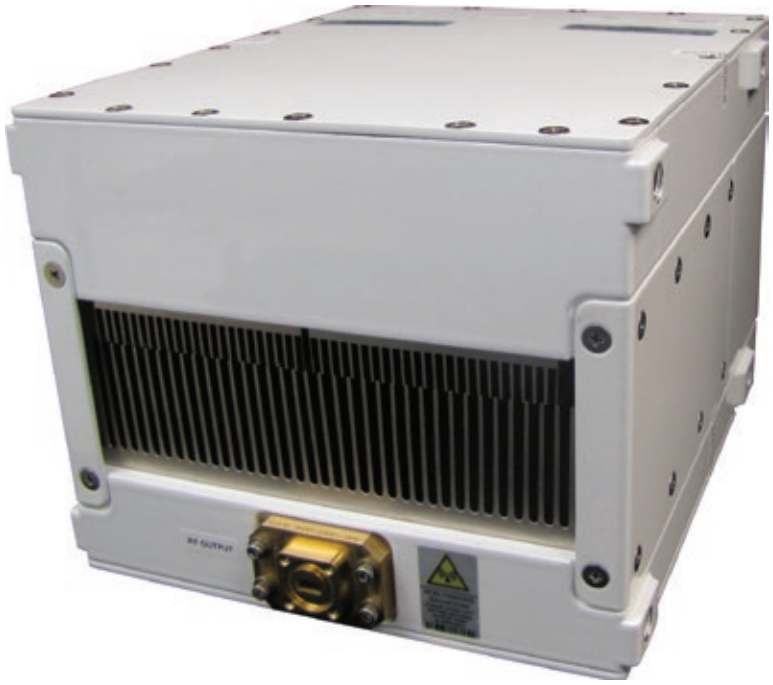

SAGE SatCom's Ka Band amplifiers offer the highest energy density and best power efficiency

SAGE SatCom is a unique supplier of integrated RF, microwave and millimeter wave solutions for the commercial and military satellite communications market. The SAGE SatCom team has vast experience in design and integration of RF products including wideband frequency up/down converters, wideband low and high solid state power amplifiers, transceivers, LNBs, wideband driver modules, line driver modules, low power BUCs for TWTA drive, and various waveguide power combining technologies.

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