25/50/75W Linear Ka-Band Antenna Mount High Power Amplifier

FEATURES

- Variable Gain Control
- Complete RS-232/ 422/485 Interface
- Ethernet Interface
- Lightweight Package

The **XTLIN-25/50/75KaM** High Power Amplifiers are compact, fully integrated antenna mount units designed for low cost operation and longevity.

Intended for outdoor operation, these increase the amount of RF power reaching the feed. The construction and light weight allows for direct mount to the antenna. This eliminates long waveguide runs and associated RF losses.

Forced air cooling is implemented in the package to allow reliable operation over extended temperature ranges. The monitor and control (M&C) interface provides a component system status.

COMTECH
XICOM TECHNOLOGY

PERFORMANCE SPECIFICATION

Parameters	XTLIN-25KaM	XTLIN-50KaM	XTLIN-75KaM
FREQUENCY RANGE, extended frequency coverage available		30.0 to 31.0 GHz	
Reference Input Impedance		50 Ohms	
LINEAR OUTPUT POWER	25W	50W	75W
GAIN			
Large Signal (minimum)		70 dB	
Attenuator Range (continuous)		30 dB ± 0.1 dB step size	
Maximum SSG Variation Over			
Any Narrow Band		0.80 dB maximum per 60 MHz	
Full Band		2.5 dB	
Slope (maximum)		± 0.04 dB/MHz	
Stability, 24 hr. (maximum)		± 0.25 dB	
Stability, Temperature (maximum)		± 1.0 dB over temperature range at any frequency	
INTERMODULATION with two equal carriers @ linear power		-25 dBc relative to the sum of all carriers	
SPECTRAL REGROWTH, 1 SR offset @ linear power (maximum) (QPSK)		-30dBc	
HARMONIC OUTPUT (maximum)		-60 dBc	
AM/PM CONVERSION (maximum)		2.0 deg/dB at or below linear power	
NOISE POWER (maximum)			
Transmit Band		-70 dBW/4 kHz	
Receive Band		-150 dBW/4 kHz	
GROUP DELAY (maximum)			
Bandwidth		Any 60 MHz	
Linear		± 0.01 nS/MHz	
Parabolic		± 0.005 nS/MHz^2	
Ripple		0.5 nS/Pk-Pk	
RESIDUAL AM NOISE (maximum)		-50 dBc to 10 kHz -20 (1.5 + logf) dBc 10 to 500 kHz -85 dBc above 500 kHz	
PHASE NOISE (maximum)		10 Hz 100 Hz 1 kHz 10 kHz 100 kHz 1 MHz 10 MHz 100 MHz	-42 dBc/Hz -72 dBc/Hz -82 dBc/Hz -102 dBc/Hz -112 dBc/Hz -122 dBc/Hz -122 dBc/Hz -122 dBc/Hz
VSWR			
Input (maximum)		1.3:1	
Output (maximum)		1.3:1	