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KU-BAND · GAN

50W SSPA

50W L-to-Ku Band Block Up Converter is based on GaN technology. Its high-efficiency GaN solid-state design provides the highest performance for satellite uplink applications.



50W	GaN	8 kg	240W
OUTPUT POWER	TECHNOLOGY	WEIGHT	POWER DRAW

KEY FEATURES

- Output frequency 13.75 – 14.75 GHz (EXT) / 14.50 GHz (STD)
- Local oscillator: 12.80 GHz
- GaN technology: high efficiency, low power consumption and high reliability
- Power consumption: 240W max.
- Auto-ranging power supply: 220V 50Hz AC
- Internal high-stability 10 MHz reference (optional)
- RoHS compliant · For civil use only

Technical Specifications

GANSAT-50WKU

RF Frequency	13.75 – 14.50 GHz
Local Oscillator	12.80 GHz
Output Power	50W (+47 dBm)
IF Connector	N-type or F-type
Power Supply	220V 50Hz AC, 240W typ.
Output Interface	WR-75 G
Gain	68 dB min, 72 dB nominal
IMD3 (Two Tones)	-26 dBc max. 2 signals 5 MHz apart at P-LINEAR
L.O. Leakage	-45 dBm max
Spurious	-50 dBc max
Spectral Regrowth	-30 dBc (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off)
External Reference Requirement	Via IF cable — 10 MHz (sine-wave), -5 to +5 dBm @ input port
TX Gain Variation / Temperature Stability	± 0.5 dB over 40 MHz / ± 1.8 dB over full band / ± 1.5 dB typ., ± 1.8 dB max.

Phase Noise	-55 dBc/Hz @ 10 Hz · -65 @ 100 Hz · -75 @ 1 kHz · -85 @ 10 kHz · -95 @ 100 kHz · -115 @ 1 MHz
Noise Power Density TX / RX	-80 dBm/Hz (max) / -125 dBm/Hz (max)
Noise Figure	15 dB max
Input / Output V.S.W.R.	2:1 max
Mute	SSPA Shutdown on L.O. Unlock
Operating / Storage Temperature	-40°C to +55°C / -55°C to +85°C
Dimensions	250 (L) × 200 (W) × 185 (H) mm — 9.85" × 7.8" × 7.3"
Weight	8 kg (17.6 lbs) max

GANSAT-50WEXTKU

RF Frequency	13.75 – 14.75 GHz
Local Oscillator	12.80 GHz
Output Power	50W (+47 dBm)
IF Connector	N-type or F-type
Power Supply	220V 50Hz AC, 240W typ.
Output Interface	WR-75 G
Gain	68 dB min, 72 dB nominal
IMD3 (Two Tones)	-26 dBc max. 2 signals 5 MHz apart at P-LINEAR
L.O. Leakage	-45 dBm max
Spurious	-50 dBc max
Spectral Regrowth	-30 dBc (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off)
External Reference Requirement	Via IF cable — 10 MHz (sine-wave), -5 to +5 dBm @ input port
TX Gain Variation / Temperature Stability	± 0.5 dB over 40 MHz / ± 1.8 dB over full band / ± 1.5 dB typ., ± 1.8 dB max.
Phase Noise	-55 dBc/Hz @ 10 Hz · -65 @ 100 Hz · -75 @ 1 kHz · -85 @ 10 kHz · -95 @ 100 kHz · -115 @ 1 MHz
Noise Power Density TX / RX	-80 dBm/Hz (max) / -125 dBm/Hz (max)
Noise Figure	15 dB max
Input / Output V.S.W.R.	2:1 max
Mute	SSPA Shutdown on L.O. Unlock
Operating / Storage Temperature	-40°C to +55°C / -55°C to +85°C
Dimensions	250 (L) × 200 (W) × 185 (H) mm — 9.85" × 7.8" × 7.3"
Weight	8 kg (17.6 lbs) max