Ku-Band

30 W Ku-band GaN BUC

CPI-Built RF Brick Inside

With CPI-built RF brick inside and plenty of thermal margin, this SSPA is rock-solid and easy to maintain.

High Linearity

Excellent AM/PM, phase noise and spectral regrowth performance.

Simple to Operate

User-friendly microprocessor-controlled logic with serial interface. Also contains digitally controlled attenuator.

Extended Band Operation

Provides 20 watts of P1dB output power at the flange over the 13.75 to 14.50 GHz frequency range.

Global Applications

Perfect for Satcom on the Move, micro flyaway systems, VSATs, and antenna-mount applications. Meets Electromagnetic Compatibility Directive 2004/108/EC to satisfy worldwide requirements and is CE-marked.

Worldwide Support

Backed by over 35 years of satellite communications experience, and CPI's worldwide 24-hour customer support network that includes more than 20 regional factory service centers.

Model B2UO

30 watt Ku-band GaAs BUC
for **satellite uplink applications**

OPTIONS

- Higher Gain
- Custom Platforms
- Ethernet Interface

Communications & Power Industries
satcom products

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30 W Ku-band GaN BUC

Specification	Model B2UO
Frequency	14.00 to 14.50 GHz or 13.75 to 14.50 GHz
L-Band Input	950 to 1450 MHz or 950 to 1700 MHz
Output Power (min.)	30 W (44.8 dBm) nominal Psat; 20 W (43.0 dBm) p1dB
Local Oscillator Frequency	Select 13050 or 12800 MHz at purchase
External 10 MHz reference	2 dBm ±5 dB
Phase Noise, max. (for ext. ref.)	-140 dBc/Hz at 100 Hz -150 dBc/Hz at 1 kHz -155 dBc/Hz at 10 kHz
Internal 10 MHz reference	Auto or software select
Small Signal Gain	62 dB min.
Gain Stability	±1.5 dB over operating temperature range; ±0.25 dB over 24 hours, fixed temperature
Gain Slope	±0.04 dB/MHz max.
Small Signal Gain Variation	±0.4 dB pk-pk max. over any 80 MHz band; ±1.50 dB pk-pk max. across the full band
Gain Adjustment Range	20 dB min. software controlled
Input VSWR	1.5:1 max. (50 ohms)
Output VSWR	1.35:1 max.
Load VSWR	1.5:1 full spec. compliance
Residual AM	-80 dBc max. at more than 100 kHz from carrier
Phase Noise, max.	-63 dBc/Hz at 100 Hz -73 dBc/Hz at 1 kHz -83 dBc/Hz at 10 kHz -93 dBc/Hz at 100 kHz -103 dBc/Hz at 1 MHz
AM/PM Conversion	2.5˚/dB max. for a single carrier at 2.5 dB backoff from rated P1dB
Harmonic Output	-45 dBc max. at rated P1dB (-60 dBc max. with external harmonic filter)
Spurious Response at P1dB	-60 dBc max. in band
Noise Power Density	<-70 dBW/4 kHz, passband
Intermodulation Distortion	-25 dBc max. with respect to each of two equal carriers 5 MHz apart at 3.0 dB total backoff from rated P1dB
Primary Power	48 VDC ±20%
Power Consumption	260 W max.
Remote Control	RF Inhibit ON/OFF; Gain Control; Fault Reset; Reference Select
Computer/Network Interface	Serial RS-232C or 422/485 (Ethernet interface optional)
Remote Status	Transmit ON/OFF; Summary Fault; Temperature; Fault Indication; RF Inhibit (ON/OFF); Lock Detect; Web Interface Option; Forward Power Monitor
Ambient Temperature	-40˚C to +55˚C operating in direct sunlight; -40˚C to +60˚C operating out of direct sunlight; -50˚C to +85˚C non-operating
Relative Humidity	100% condensing
Altitude	12,000 feet with standard adiabatic derating of 2˚C/1,000 feet, operating; 50,000 feet, non-operating
Cooling	Integral forced air
Shock and Vibration	20 g peak, 11 msec, 1/2 sine; 2.1 g_{rms}, 5 to 500 Hz
RF Output Connection	Type N Female (optional: WR-75 waveguide flange with UNC 2B 6-32 threaded holes (M4 available, type SMA optional)
L-Band INput Connection	Type N female (type SMA optional)
Dimensions, L x W x H	10.7” x 5.0” x 4.1” (272 x 127 x 105 mm)
Weight	9 lbs (4 kg) typ.

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CE Quality Management System - ISO 9001:2008

For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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