

Intended for either indoor or outdoor environments, CPI Satcom designed the UB61000 X-Band BUC for use in commercial and military satellite uplink systems. This compact unit can be mounted on the antenna for maximum efficiency of operation.

### Worldwide Support

Backed by over 40 years of satellite communications experience, and CPI's worldwide 24-hour customer support network that includes more than 20 regional factory service centers.



CPI 30/50 W GaAs X-band BUCs,  
Models UB61x45 and UB61x47

### FEATURES:

- 30 or 50 W output power
- L-band IF input
- Outdoor package
- Serial I/O package
- Internal image filtering included
- Integral monitor/alarm
- Sample port
- 48 V or AC power

Quality Management  
System - ISO 9001:2015



Specifications	CPI 30/50 W GaAs X-band Outdoor BUCs
IF Input Frequency	950 to 1450 MHz
RF Output Frequency	7.90 to 8.40 GHz
External Reference Frequency Level	10 MHz 0 dBm ±5 dB
Phase Noise (SSB) @ 1 kHz offset @ 10 kHz offset @ 100 kHz offset	-73 max. dBc/Hz -83 max. dBc/Hz -93 max. dBc/Hz
Gain	60 or 70 dB min.
Gain Flatness	±1.25 dB max. full band
Gain Slope	±0.4 dB max. per 40 MHz
Gain Stability vs Temp.	±2.0 dB
P <sub>1dB</sub> / P <sub>SAT</sub> 30 W amplifier 50 W amplifier	+44.0 dBm min; +45.5 dBm typ. +46.0 dBm min; +47.2 dBm typ.
Spectral Regrowth	-30 dBc max.
Intermodulation	-25 dBc at 3 dB backoff from P <sub>1dB</sub> , with respect to the sum of two carriers
Output Noise Power Density 7.9 - 8.4 GHz 7.25 - 7.75 GHz	-75 dBm/Hz max. -125 dBm/Hz max.
VSWR (Input/Output)	1.70:1 typ, 2.00:1 max. / 1.25:1 typ, 1.40:1 max.
Overdrive	0 dBm max, max. input level (no damage)
Noise Figure	12 dB nom.
Spurious, Signal Related	-60 dBc max, at rated output power in rated band
Spurious, Signal Independent	-60 dBm max, outside rated band
LO Leakage	-20 dBm max. at rated output power
DC Power Option Input Voltage	+48 VDC
AC Power Option Input Voltage	90-264 VAC (47-63 Hz)
Power Consumption	30 W version: 300 W typ. / 50 W version: 320 W typ.
M&C Interface	Serial Network RS232/485 (Mute, Temp, Monitor, Fault)
Size and Weight	Refer to outline drawing on page 3; 11" x 6.8" x 5.13" (L x W x H); 16 lbs nom.
Finish	White epoxy paint (NATO green or desert tan optional)
Connectors IF Input/Ext Ref, RF Sample RF Output Power Control/Alarm Power Control/Alarm	Type N female CPR112G or UG-138/U flange MS3474W14-4P MS3114E14-18S MS3114E14-12P
Operating Temperature	-40°C to +60°C
Humidity	100% Condensing



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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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