

100 W X-Band GaAs Block Upconverter

Reliable, Flexible, Durable

The CPI UB61050 is designed for indoor or outdoor environments. Its exceptional design and performance has been undertaken with emphasis on facilitating issue-free WGS terminal certification while providing a cost-competitive solution with a history of field-proven reliability. Specifications included here are for standard product. Please contact CPI for custom or specific performance needs.

Reference Documents

- LMI Drawing 11495
- Operation Manual, 11496 MAN
- Outline Drawings 11128, 11229, 11374

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.



UB-61050 Series

100 watt BUC for indoor, outdoor or hubmount **satellite uplink applications**

OPTIONS

- AC power
- CPR112G flange
- 70 dB gain



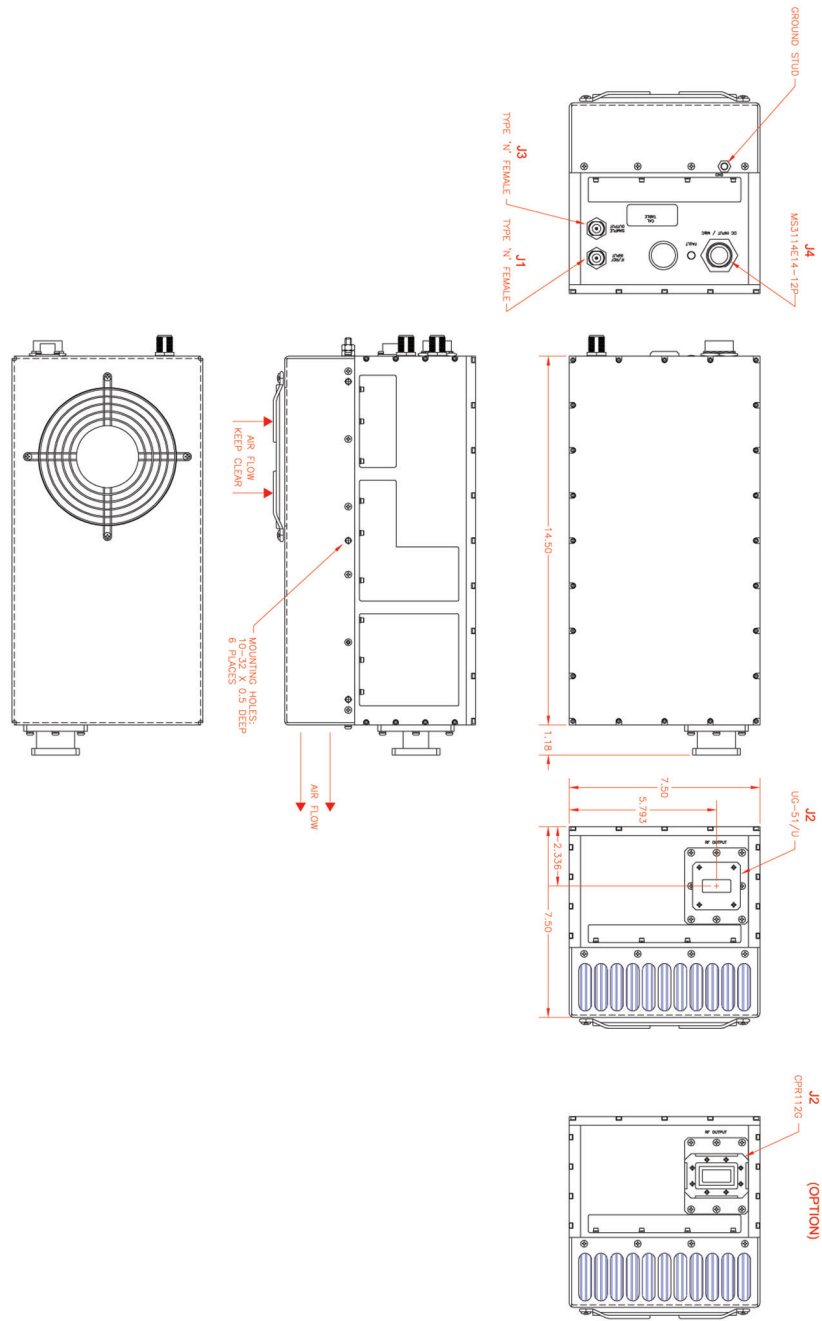
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Output Power (Psat)	50.5 dBm (112 W)
Output Power (P1dB)	50 dB (100 W) typ, 49.5 dB (89 W) min.
Linear Output Power (Plin)	47.5 dBm typ. (56 W) --- <i>Measurement per WGS X-Band and Ka-Band Terminal Performance Certification Test Procedures, Version 1.01, 09 April 2008, Para. 5.6.2.1</i>
Input Frequency	950 to 1450 MHz
Output Frequency	7.9 to 8.4 GHz (6.95 GHz LO)
External Reference Frequency	10 MHz @ 0 dBm \pm 5 dB
Phase Noise (SSB)	-72 dBc/Hz max. @ 1 kHz offset -83 dBc/Hz max. @ 10 kHz offset -93 dBc/Hz max. @ 100 kHz offset
Gain	60 dB min, 64 dB typ.
Gain Flatness	\pm 1.25 dB max, per full band
Gain Slope	\pm 0.4 dB max. per 40 MHz
Gain Stability Over Temperature	\pm 2.0 dB
Gain Adjustment Range	31.5 dB, in 0.5 dB steps
Third Order Intermodulation Distortion	-25 dBc @ 3 dB backoff from P1dB
Spurious, Signal Related	-60 dBc max. at rated P1dB
Spurious, Signal Independent	-60 dBc max. outside of band at rated P1dB
AM-PM Conversion	2°/dB max, at rated linear output power
Input VSWR	2.0:1 max, 1.50:1 typ.
Output VSWR	1.30:1 max./1.25:1 typ. (output isolator included)
Overdrive	+0 dBm max, non-damaging
Power Requirement	DC operation: +40 min. to +56 VDC at 460 W nom, small signal; AC operation (optional): 90 to 264 VAC, 47 to 63 Hz, small signal
Operating Temperature	-40°C to +60°C
Humidity	100% condensing
M&C Function	Mute, Temperature Monitor, Fault, Gain Adjust, with RS-232 or RS-422/485 serial interface
Size (see outline drawing 11151)	14.5 L x 7.5 W x 7.5 H inches (369 x 191 x 191 mm)
Weight	21 lbs. (9.5 kg) nom.
Finish	Epoxy paint, white standard (NATO green or desert tan available)
IF/External Reference Connector	Type N Female
RF Output Connector	UG-138/U flange (CPR112G optional)
Mains Power Connector	C016 20C003-100-12
M&C Connector	MS3112E12-14P

Note: Mating Connectors available as option.

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Note: This product's outline can change based on the number of connectors required for any given configuration, and may not be representative of your desired configuration. Please contact CPI before using this drawing for system design.

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Construct Model Number

Base No. **1 2 3 4 5 6 7 8 9**
 UB 6 1 x 50 - x x x x - x x x

1 Package Type

0 = Standard
 1 = Lightweight

2 Output Power (dBm)

50 = 100 W

3 Gain

0 = 60 dB
 1 = 70 dB

4 Voltage

0 = 48 V DC
 1 = AC

5 Output

0 = UG-138/U
 1 = CPR112G

6 Input Panel

1 = 1 Connector (DC Only)
 2 = 2 Connector (AC Only)
 3 = 3 Connector (AC or DC)

7 Comms Type

0 = RS-232
 1 = RS-422/485
 2 = Ethernet

8 Accessories

0 = No Mating Connectors
 1 = Mating Connectors

9 Finish Color (FED-STD)

0 = White (37925)
 1 = Dark Green (34094)
 2 = Desert Tan (33446)
 3 = Beige (37722)
 4 = Sand (33303)
 5 = Forest Green (34083)
 6 = Metalast