200W Outdoor TWT Amplifier

for Satellite Communications

The T02UO-2G

200 Watt TWT Power
Amplifier — higher
efficiency in an
environmentally sealed
compact package
designed for outdoor
operation



note: photo is not necessarily representative of your desired configuration

Less Prime Power, More Efficient

CPI's environmentally sealed 200 W Ku-band hubmount TWTA is the most efficient amplifier in its class. Consuming only 650 W prime power to achieve 175 W at the flange, the Mini-Ku is at least 24% more efficient than any similar product.

Reliable

Designed and built to survive in extremely adverse environmental conditions. Operates in ambient temperatures up to 60°C.

Digital Ready, Simple to Operate

User-friendly microprocessor-controlled logic. Integrated Ethernet computer interface and forward power detection over CIF are now standard. A variety of optional configurations, including integral linearizers and BUCs, is available.

Highly Compact

10% smaller and 25% lighter than any other 200 W TWTA.

Easy to Maintain

Modular design and built-in fault diagnostic capability via remote monitor and control.

Global Applications

Meets International Safety Standard EN-60215, Electromagnetic Compatibility 2004/108/EC and Harmonic Standard EN-61000-3-2 to satisfy worldwide requirements.

Worldwide Support

Backed by over three decades of satellite communications experience and CPI's worldwide 24-hour customer support network that includes sixteen regional factory service centers.



811 Hansen Way P.O. Box 51625, Palo Alto, CA 94303

tel: +1 (650) 846-3803 *fax:* +1 (650) 424-1744

e-mail: satcommarketing@cpii.com www.cpii.com/satcom

SPECIFICATIONS, T02UO-2G

to 14.50 GHz (output, eband option 12.75 to 14.50 GHz)
bband option 12.75 to 14.50 anz)
/ min. (53.01 dBm) / min. (52.43 dBm)
Hz (1750 MHz with wideband option)
min. at rated power output dB min. with SSIPA option); min. at small signal dB min. with SSIPA option) dB min. with SSIPA and linearizer)
dB/24hr max. stant drive and temp.)
dB/MHz max.
pk-pk across any 80 MHz band; pk-pk across the 750 MHz band pk-pk across 1750 MHz leband option)
typ. (not available with low gain version)
max.
max. (1.3:1 max. with optional al output isolator)
max. continuous operation; any value for ion without damage
3c below 10 kHz .5 + log F(kHz)] dBc z to 500 kHz
below IESS-308 continuous mask 3c AC fundamental 3c sum of all spurs

Electrical ((continued)	١
Electrical (Commuca	,

Intermodulation	-24 dBc max. with respect to the
	sum of both carriers at total output
	power 7 dB OBO (4 dB OBO with
	at the transfer

optional linearizer)

Primary Power 100-240 VAC ±10% single phase,

47-63 Hz

Power Consumption 700 VA max;

600 VA typ. at 100 W output power

Power Factor 0.95 min.

Environmental (Operating)
Ambient Temperature -40°C to +60°C operating,

including solar loading; -40°C to +71°C non-operating

Relative Humidity 100% condensing

Ititude 10,000 ft. with standard adiabatic derating of 2°C/1000 ft., operating;

50,000 ft., non-operating

Shock 20 g pk, 11 mS, 1/2 sine

'ibration 3 grms

Acoustic Noise 65 dBA @ 3 ft. from amplifier

Mechanical

Cooling Forced air with integral blower

Computer Interface Ethernet (serial interface optional)

RF Input Connection Type N female (standard)

RF Output Connection WR-75 waveguide flange, grooved with UNC 2B 6-32

threaded holes

RF Output Monitor Type N female, 44 dB nom.

Dimensions (W x H x D) 8.5 x 8.5 x 15.0 in. max.

(216 x 216 x 381 mm)

Weight 24.25 lbs (11.0 kg) with no options;

25.41 lbs (11.5 kg) with BUC

OPTIONS:

- Remote Control Panel
- Redundant Subsystems
- Integrated 1:1 switch control and drive
- Integral Linearizer
- Extended Frequency --- 12.75 14.50 GHz
- Attenuated Solid State IPA
- Serial Interface
- Integral L-Band Block Upconverter (BUC --- option is available over 12.75 to 13.25 GHz OR 13.75 to 14.50 GHz frequency ranges only). This data sheet does not provide amplifier specifications for when the BUC is included. Consult CPI for details.

AM/PM Conversion

Harmonic Output

Noise Power Density

Group Delay

in any 80 MHz band

Spurious

Noise Power Density (at maximum gain)

<-66 c

-60 dBc max. at rated power <-130 dBW/4 kHz, below 12.7 GHz <-70 dBW/4 kHz, passband

-60 dBc max. at 175 W flange output

2.0°/dB max. for a single carrier up to 7 dB

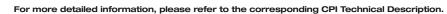
OBO (up to 4 dB OBO with linearizer option)

<-66 dBW/4 kHz, passband with linearizer

0.02 ns/MHz linear 0.003 ns/MHz² parabolic max. 0.75 ns pk-pk ripple max.







Note: Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.



Communications & Power Industries