

Built for Satellite Communications Uplink Applications

Provides up to 200 watts of power in a 3 RU package, digital ready, for wideband, single- and multi-carrier satellite service in the 12.75 to 14.50 GHz or 13.75 to 14.50 GHz frequency band. Ideal for transportable and fixed earth station applications where space and prime power are at a premium.

Cost Effective and Efficient

Employs a high efficiency dual-depressed collector helix traveling wave tube backed by many years of field-proven experience in airborne and military applications.

Simple to Operate

User-friendly microprocessor-controlled logic with integrated Ethernet computer interface. Digital metering, pin diode attenuation and optional integrated linearizer for improved intermodulation performance.

Easy to Maintain

Modular design and built-in fault diagnostic capability with convenient and clearly visible indicators for easy maintainability in the field.



CPI 200 W Ku-band outdoor TWTA, Models VZU-6992EC and VZU-6992EB

OPTIONS:

- Remote control panel
- Integral linearizer
- Redundant and hybrid power combined systems
- External receive band reject filter (consult factory for details)
- Single LO Block Upconverter

Quality Management System - ISO 9001:2015



Meets Global Requirements

Meets International Safety Standard EN-60215, Electromagnetic Compatibility 2014/30/EU and Harmonic Standard EN-61000-3-2 to satisfy worldwide requirements. CE Marked.

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.

Specification	CPI Model VZU-6992EC/EB, 200 W Ku-Band Rack-Mount TWTA		
Output Power/Frequency Combinations	Model Number - Configuration	Output Power (min.)	Output Frequency
	VZU6992-EC	200 W TWT / 175 W HPA	13.75 to 14.50 GHz
	VZU6992-EB	200 W TWT / 175 W HPA	12.75 to 14.50 GHz
Bandwidth	6992EC: 750 MHz; 6992EB: 1750 MHz		
Gain	73 dB min. at rated power output; 75 dB min. at small signal		
Gain Stability	±0.25 dB/24hr max, at constant drive and temperature ± 1.0 dB typ, over oper. temp. range		
Small Signal Gain Slope	±0.02 dB/MHz max.		
Small Signal Gain Variation	1.0 dB pk-pk across any 80 MHz band; 2.5 dB pk-pk across the entire passband; 4.5 dB pk-pk across passband, with linearizer		
RF Level Adjust Range	0 to 20 dB		
Input/Output VSWR	1.3:1 max. / 1.3:1 max.		
Load VSWR	2.0:1 max. continuous operation; any value for operation without damage		
Phase Noise IESS Phase Noise Profile AC Fundamental Sum of All Spurs	-6 dBc -36 dBc -47 dBc		
AM/PM Conversion	2.0°/dB max. for a single carrier at 8 dB below rated power (at 4 dB below rated power with optional linearizer)		
Harmonic Output	-60 dBc at rated power, second and third harmonics		
Noise and Spurious	<-65 dBW/4 kHz in Passband to 18 GHz <-60 dBW/4 kHz in Passband with linearizer		
Intermodulation	6992EC -24 dBc max. with two equal carriers at total output power 7 dB below rated single-carrier output (at total output power 4 dB below rated single-carrier output) 6992EB -23 dBc max. with two equal carriers at total output power 7 dB below rated single-carrier output (at total output power 4 dB below rated single-carrier output)		
Group Delay	In any 80 MHz band: 0.01 ns/MHz linear max; 0.001 ns/MHz ² parabolic max; 0.5 ns pk-pk ripple max.		
Primary Power	100-240 VAC ±10%, single phase 47-63 Hz		
Power Consumption	0.85 kVA typ; 1.0 kVA max.		
Power Factor	0.95 min.		
Inrush Current	200% max.		
Ambient Temperature	-10°C to +50°C operating; -54°C to +71°C non-operating		
Relative Humidity	95% non-condensing		
Altitude	10,000 ft. (3,048 m) with standard adiabatic derating of 2°C/1000 ft. (305 m) operating; 40,000 ft. (12,192 m) non-operating		
Shock and Vibration	Designed for normal transportation environment per Section 514.4 MIL-STD-810E. Designed to withstand 20G at 11 ms (1/2 sine pulse) in non-operating configuration		
Acoustic Noise	65 dBA @ 3 ft. from amplifier		
Cooling (TWT)	Forced air with integral blower. Rear intake and exhaust.		
RF Input Connection	Type N Female		
RF Output Connection	WR75 waveguide flange grooved with UNC 2B 6-32 threaded holes		
RF Output Monitor	Type N Female		
Dimensions (W x H x D)	19 x 5.25 x 24 in. (483 x 133 x 610 mm)		
Weight	60 lbs (27.3 kg) max.		



SMP Division
Satcom Products
tel: +1 (669) 275-2744
email: satcommarketing@cpii.com
web: www.cpii.com/satcom

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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