

VSTAR 30 Millimeter TWT Amplifier

for Testing and Measurement Applications

Ka-Band

VZA-6902J1

40 Watt split mount millimeter wave TWT power amplifier—environmentally sealed compact design for indoor or outdoor operation



Split Mount

The split mount configuration provides for direct feed mounting to minimize waveguide RF losses. The power supply maintains the convenience of a rack mounted unit with built-in monitors and controls located up to 12 meters away.

Versatile

Ultra wide-band, automatic fault recycle, user friendly microprocessor-controlled logic with integrated RS-422/485 computer interface. IEEE interface and other options available.

Easy to Maintain

Automatic sequencing of voltages and filament time delay. The power supply HV outputs to the appropriate TWT label voltages are automatically set with an integrated, individualized TWT personality interface module.

Global Applications

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

Worldwide Support

Backed by over three decades of satellite communications experience, and CPI's worldwide 24-hour customer support network that includes more than twenty 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: marketing@satcom.cpii.com
www.cpii.com/emc

Ka-Band

30 Millimeter CW TWT Power Amplifier

SPECIFICATIONS, 40 W Ka-band Outdoor LPA

Electrical

| | |
|--|--|
| Model Number | VZA-6902J1 |
| Frequency | 26.5 - 40.0 GHz |
| Output Power | |
| TWT | 40 W min. |
| Flange | 39 W min. |
| Bandwidth | 13.5 GHz, instantaneous |
| RF Level Adjust Range | 0 to 20 dB |
| Attenuator Step Size | 0.1 dB typ. |
| Gain at rated power | 46 dBm min. |
| Gain Variation | ±5.0 dB over 13.5 GHz, typ. at 6 dB backoff |
| Gain Stability (at constant drive and temperature) | ±0.25 dB/24 hours max. (after 30 minute warm-up) ±1.0 dB over temperature range |
| VSWR | |
| Input | 1.7:1 typ, 2.4:1 max. |
| Output | 1.35:1 typ, 1.50:1 max. |
| Load | 2.0:1 max.; no degradation, infinite VSWR without damage |
| Phase Noise | -120 dBc/Hz max. from 1 to 350 MHz, -6 dB below IESS-308 below 1 MHz (-21 dBc/Hz typ.) |
| Noise and Spurious | -50 dBc |
| Noise Power Out | +23 dBm max. total |
| Primary Power | Single phase, 100-264 VAC ± 10%, 47-63 Hz |
| Power Consumption | 700 VA typ, 1200 VA max. |
| Power Factor | 0.95 min. |

Environmental (operating)

| | |
|---------------------|---|
| Ambient Temperature | RF Unit: -10°C to +50°C (+65°C with solar loading); Power Supply: -10°C to +50° |
| Relative Humidity | RF Unit: 100% condensing; Power Supply: 95% non-condensing standard |
| Altitude | 10,000 ft with standard adiabatic derating of 2°C/1000 ft |
| Shock and Vibration | As encountered in normal transportation |

Mechanical

| | |
|----------------------|--|
| Cooling | Forced air with integral blower |
| RF Input Connection | WR-28 waveguide flange |
| RF Output Connection | WR-28 waveguide flange |
| RF Output Monitor | Type K Female |
| Dimensions (WxHxD) | RF unit 8.5 x 12.83 x 20 in. (216 x 324 x 508 mm.); PS unit 19 x 5.25 x 24 in. (483 x 133 x 610 mm.) |
| Weight | RF unit 40 lbs max. (18.2 kg); PS unit 50 lbs max. (22.7 kg) |
| HV Cables/LV Cables | 2.5 meters - 0 cm/+30 cm |

Heat and Acoustic

| | |
|------------------|-------------|
| Heat Dissipation | 450 W typ. |
| Acoustic | 65 dBA typ. |

OPTIONS :

- *Input Isolator*
- *IEEE-488 Interface*
- *RS-232 Interface*
- *Interconnect cable to 12 meters*