RADITEK

SATCOM
Ka Band TWTA

RoHS COMPLIANT

Ka-Band
Travelling Wave Tube Amplifier
18.0-26.5GHz, WR42, 40Watts

RF Specifications	
Frequency Range:	18.0 – 26.5 GHz
Output Power at Flange:	40 Watts minimum
TWT:	Teledyne Model MEC-5493
Duty:	Continuous Wave
Amplifier Gain:	46 dB minimum at maximum setting (Includes solid state pre-amplifier to obtain given output power with input of 0 dBm or less over entire frequency range)
Gain Adjustment:	External gain adjustment is standard with built-in SSPA. Allows gain adjustment from 0 to 35 dB
Gain Variation:	+/-8 dB at rated power
Spurious Output:	-40 dBc (excluding harmonics)
Harmonic Output:	-20 dBc worst case
VSWR: Input	2.0:1
VSWR: Output	2.5:1
VSWR: Load	2.0:1

Mechanical Specifications	
Dimensions:	19” wide x 5.25” high x 25” deep (rack mount)
Weight:	65 pounds (29 kg) maximum
RF Connectors:	Input: Type-K, female, rear panel
	Output: WR-42, rear panel
	Sample Port: Type-K, female, rear panel
Cooling:	Built-in forced air, rear intake and rear exhaust.

Electrical Specifications	
Prime Power:	190-260 VAC, single-phase, 50/60 Hz
Power Consumption:	1.0 kVA maximum

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Ka-Band, Travelling Wave Tube Amplifier

code-M6

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Environmental Specifications	
Altitude:	Up to 10,000 feet operating, de-rate 2oC per 1,000 feet above 3,000 ft
Temperature:	Operating Temperature: -20o to +40oC
	Storage Temperature: -40o to +70oC
Humidity:	Operating Humidity: Up to 95% (including condensation)
	Non Operating Humidity: Up to 100% (including condensation)
Shock and Vibration:	Equal to Mobile Van or Antenna Pedestal

Computer Interface

- • Controlled via ETM's standard control head utilizing a 80186 microprocessor
- • IEEE-488
- • Remote monitoring and control of all listed parameters

Display

- • 4-line, 20-character per line, vacuum luminescent display

Displayed Protection Features

- • Input Line Over Voltage/Under Voltage
- • Over Reverse Power (High Reflected Power)
- • Body (Helix) Over Current
- • TWT Over Temperature
- • Cabinet Over Temperature
- • Cathode Over Voltage/Under Voltage
- • Filament Over Voltage
- • Filament Over Current/Under Current
- • Collector Under Voltage
- • Inverter Fault
- • Tube (High Voltage) Arc
- • Grid Over Voltage
- • Interlock Open
- • Panel Open
- • External Inhibit
- • Emergency Mode
- • Over/Under Forward Power

User-Settable Warnings

- • Over/Under Forward Power (dBm or Watts)
- • Over Reverse Power (dBm or Watts)
- • Cabinet Over Temperature (0C or 0F)
- • TWT Over Temperature (0C or 0F)
- • Helix Over Current (mA

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