

TESTEM BSU

- RF power amplifier -

e.g. for applications in telemetry and data link systems, avionics and marine

- wide frequency range: 130 – 180 MHz / 320 – 410 MHz / 380 – 480 MHz
- fully programmable via serial Interface
- ruggedized (shock proof) for harsh environments
- software controlled protection against overtemperatur and antenna mismatch (infinite short / open output)
- industrial temperature range
- altitude unlimited

SPECIFICATIONS:

GENERAL

Description	RF power amplifier
Device type	BSU

RF SECTION

Frequency range (version U)	380 ... 470 MHz
Usable range (@ decreased rf power)	380 ... 480 MHz
Frequency range (version P2)	320 ... 410 MHz
Frequency range (version K)	130 ... 180 MHz
RF impedance	50 Ω
VSWR	2:1 (maximum)
Reference oscillator stability	5 ppm (1 ppm typical)
RF power input	10 mW (10 dBm)
RF power output (vers. P10)	10 W (40 dBm)
RF power output (vers. P20)	20 W (43 dBm)
Harmonic & spurious rejection	- 70 dBc (minimum)

SYSTEM CHARACTERISTICS

Isolation	non isolated power supply Input (rf ground & digital return & DC power return connected to case)
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Protection system

Antenna mismatch protection	infinite
Overtemperature protection	automatic derating

POWER SUPPLY

Supply voltage	11.6 ... 14.0 V DC (10 V @ decreased rf power)
Supply current (Version P10)	max 3.5 A @ 10W
Supply current (Version P20)	max 4 A @ 10W Max 6 A @20 W
Overvoltage protection	+15 / -17 V DC
Reverse polarity protection	max.-17VDC (no time limit)

ESD PROTECTION

Peak voltage (IEC 1000-4-2)	±8 kV (contact discharge)
Peak voltage (MIL 833-3015.7)	±15 kV
Peak current (Supply Voltage)	100 A (8/20µs)
Peak current (all other I/O pins)	20 A (8/20µs)



ENVIRONMENTAL

Operating temperature	-40 °C ... +85 °C (case temp.)
Humidity	95% RH
Altitude	unlimited
Vibration (random)	0.1 g ² /Hz (20Hz-2kHz)
Vibration (sine)	20g (20Hz-2kHz)
Shock (½ sine)	100 g peak (11ms)

PHYSICAL CHARACTERISTICS

Dimensions(excl. connectors)	140 x 80 x 20 mm
Supply/signal connector	DSUB-15-HighDensity male AMP AMPLIMITE HD-20
Antenna connector	SMA female, opt. BNC/TNC