

# 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)

#### 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. -17 V DC (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<sup>2</sup>/Hz (20Hz-2kHz)  
Vibration (sine) 20g (20Hz-2kHz)  
Shock (½ sine) 100 g peak (11ms)

#### PHYSICAL CHARACTERISTICS

Dimensions(exclusive 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

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