The Cobham Digital RF amplifiers bring a new level of performance and reliability to microwave transmission of digitally modulated video. The linear RF power amplifier provides 5 watts of RF power into any load.

The linear amplifier features domo technology at its core and is ideal for digital transmission applications in surveillance, law enforcement, military UAV and UGV, airborne data/telemetry and television broadcasting. It is designed to amplify COFDM digitally modulated signals (QPSK, 16-QAM) and features broadband operation, while requiring a minimum of DC current.

Only minimum heat sinking is required for the high output models in normal operation. Packaged in a rugged aluminium housing, the amplifier construction lends itself to applications where extreme environmental conditions are the norm. Chassis connectors are environmentally protected, making the amplifier ideal for airborne operations where it can be mounted on a helicopter skid.

The integral lineariser minimises distortions typically associated with conventional RF amplification techniques. The amplifier is designed to meet the stringent requirements of the DVB-T spectral mask and may be used for COFDM, QPSK, QAM and CW applications.

Input and output port protection is provided with a VSWR better than 2.0:1 across the frequency band providing excellent matching into filters. Reverse polarity protection and short circuit protection are standard features.

Features:
- Designed for Digital Modulation
  - COFDM, QPSK, BPSK
- Ultra linear
- High efficiency
- Operating gain
  - 5W: 17 dB typical
- RF ports are open and short protected
- Short circuit/over-voltage protection
- Reverse polarity protection
- 11 - 28 Vdc input
- Rugged packaging
- Mute function

**Specification:**

**Electrical**
- Frequency range: L band: 1.15 to 1.4GHz
- Input/output protection: Open and short circuit
- VSWR: ≥ -14 dB input and output return loss
- Non-harmonic spurious output: > -65 dBc Typ.
- Nominal drive: +20 dBm
- Overdrive capability: Pin (nom) + 3 dBm (typ.)
- Modulation formats: COFDM, QAM, CW
- Reverse polarity protection
- Short circuit protection
- Gain flatness: ±0.5 dB across operating band
- Operating gain: 5W: (17 dB typ.)
- Output power: +37 dBm
- ACPR: -30 dBc (typ.)
- OIP3 @ Pop (typ): 5W: 37 dBm
- Power added efficiency: 15% typical
- PA mute on PTO
- Status LED: ONSTBY
- Supply voltage: +11 Vdc to +28 Vdc
- Supply current: SW output: 3.8 A (typ.) @ 12 Vdc

**Environmental**
- Operating temperature: -15 to +60 °C, Baseplate
- Relative humidity: 0 to 95%, non-condensing
- Environmentally protected

**Mechanical**
- DC input connector: PTO 4 pin
  - A Pin - V+
  - B Pin - forward power (normal high, goes low if o/p is 6 dB less than 37 dBm)
  - C Pin - GND
  - D Pin - Mute - pull low to mute
- Housing: Milled aluminium (nickel plated)
- Dimensions: H 35.5mm, W 121.5mm, L 169.5mm
- Weight: Approx 1.5kg
- RF input: SMA female (sealed)
- RF output: TNC female (sealed)

**Product Code:**
- SOLAMP5W-115140

For further information please contact:

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