

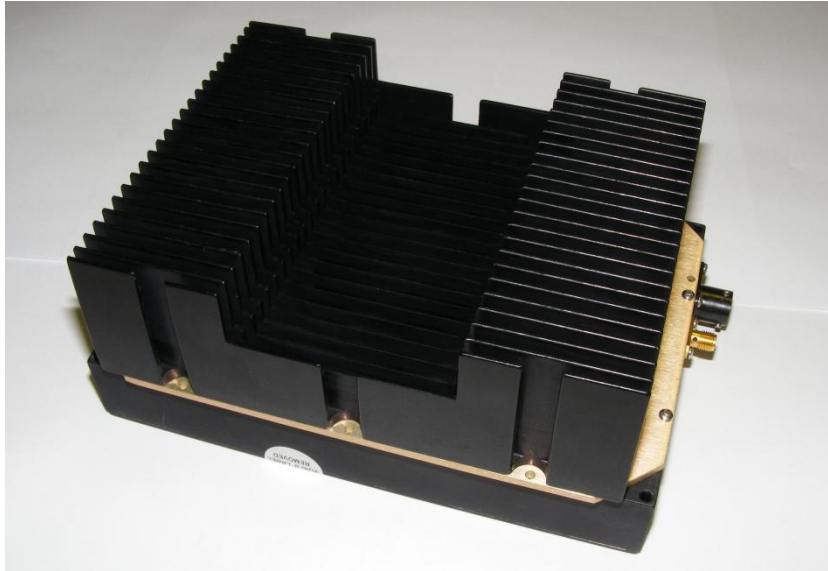
SOLAMP Robust 5W Amplifier

COFDM – Video, Audio Telemetry and IP Products

COBHAM

October 2011 Data Sheet

The most important thing we build is trust



Cobham SOLAMP Robust 5W amplifiers bring a new level of performance and reliability to microwave transmission of digitally modulated signals. Linearization technology is used to minimize distortion and provide superior signal quality for complex multi-carrier modulations while minimizing the DC power consumption.

This amplifier is designed to meet the stringent requirements of the DVB-T spectral mask and may be used for COFDM, QPSK, QAM, CW and similar applications. The RF input and output ports provide excellent return loss for filter matching. In addition, reverse polarity protection, short/open circuit protection are standard features, and low RF output power warning is also available. An optional, small, fanned heat sink is available for cooling the amplifier to desired levels. Fan power is available from the PA.

Chassis connectors may be optionally sealed for airborne applications. The Cobham 5W amplifier line is ideal for digital transmission applications in surveillance, law enforcement, military UAV and UGV, airborne data/telemetry and television broadcasting.

Features:

- Designed for Digital Modulation - COFDM, QPSK, BPSK
- Ultra linear or saturated operation
- High efficiency
- Operating gain - 17 dB typical
- RF ports are open and short protected
- Short circuit/over-voltage protection
- Reverse polarity protection
- 12 - 30 Vdc Power Supply range
- Low output Power warning on L and C band Amplifiers
- Robust packaging
- Status indicator light (red/green)

Options:

- Integrated Heat Sink and Fan
- RF Output Automatic Level Control
- Water Resistant, Sealed Enclosure
- Type N or TNC RF connectors, DB-9 for DC
- Custom Feed Lines and other Accessories

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Specification:

Electrical

Frequency range	1.15 to 1.45 GHz 1.65 to 1.90 GHz 2.00 to 2.50 GHz 3.10 to 3.50 GHz 4.40 to 5.00 GHz
Input/output protection	Open and short circuit
I/O Impedance	50ohm, >10dB return loss
Non-harmonic spurious output	> 60 dBc Typ (L Band >65dBc Typ)
Input Power capability)	+20 dBm (+3dBm overdrive)
Modulation formats	COFDM, QAM,BPSK, QPSK
Reverse polarity protection	
Gain flatness	±0.5 dB across operating band
Operating gain	5W: (17 dB typ.)
Output power Band)	+39 dBm typ (+40dBm typ for S Band)
ACPR	-32 dBc typ
OIP3 @ Pop (typ)	5W: 39 dBm
EVM	2.5% typ
PA mute on PTO	
Status LED	ON/STBY
Supply voltage	+12 Vdc to +30 Vdc
Supply current Band)	5W output: 3.8 A (typ.) @ 12 Vdc (S-

Environmental

Operating temperature	-15 to +65 °C, Baseplate
Relative humidity	0 to 95%, non-condensing
Environmentally protected sealed	Water resistant not hermetically sealed

Mechanical

DC input connector	Amphenol PTO 4 pin
	- A Pin - V+
	- B Pin - Low Power Warning (some models) (normal high, goes low if o/p is 6 dB less than 37 dBm)
	- C Pin - Ground
	- D Pin – RF output control (input, low=RF power off)
Housing black anodized)	Milled aluminium (nickel plated or

Dimensions (with heat sink);

SOLAMP5W-115140/200250	H 76.2mm x W 122mm x L 170.2mm
SOLAMP5W-165190/310350	H 81.3mm x W 122mm x L 170.2mm
SOLAMP5W-440500	H 88.9mm x W 134.6mm x L 45.7mm
Weight	Approx 1.3kg
RF input	SMA female (sealed)
RF output	TNC female (sealed)
User camera type	PAL or NTSC

Product Code:

SOLAMP5W-115140
SOLAMP5W-165190
SOLAMP5W-200250
SOLAMP5W-310350
SOLAMP5W-440500
Built-in fan available in selected models

For further information please contact:

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