

## Solid State Matched Band High Power Amplifier

**5010 - MBM3537DL**
**3.5 – 3.7 GHz / 20 Watts**

### WLL AMPLIFIER FOR WIDE BAND CDMA MINIBASE STATIONS AND REPEATERS

#### PRELIMINARY DATA

The MBM3537DL (SKU # 5010) is suitable for high power W-CDMA and other S-Band linear applications. This amplifier utilizes GaAsFET power devices that provide high gain, wide dynamic range, low distortions and excellent linearity. Exceptional performance, long term reliability and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, EMI/RFI filters, machined housings and qualified components. Empower RF's ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.



- Solid-state Linear design
- Instantaneous broadband
- Small and lightweight
- Suitable for W-CDMA CW/FM/PM/AM/Pulse/Digital
- 50 Ohm Input/Output impedance
- High reliability and ruggedness

#### ELECTRICAL SPECIFICATIONS @ T=25°C, VDD=+12VDC, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	3.5		3.7	GHz
Power Output CW	P <sub>Sat</sub>	25			Watt
Power Output @ 1dB comp.	P <sub>1dB</sub>	20			Watt
Power Output @ W-CDMA	P <sub>CDMA</sub>		35		dBm
Power Gain @ 1dB G.C.P	G <sub>1dB</sub>	44			dB
Input Power for Rated W-CDMA	P <sub>in</sub>		-9		dBm
Small Signal Gain Flatness	ΔG			±1.0	dB
Input/Output VSWR @ 50Ω	S11/S22			2:1	
Noise Figure	NF		7	10	dB
Third Order Intercept Point	IP3		+44		dBm
Harmonics @ P1dB G.C.P	H		-40		dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	VDC	11	12	13	Volt
Current Consumption	ID		6.6		Amp

#### MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	9 x 3.35 x 0.8	Inch	Max
Weight	1.0	lb.	Max
RF Connectors In/Out	SMA female		
DC / Shutdown Connectors	Feed-Thru terminal		
Cooling	External Heatsink		

#### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	T <sub>c</sub>	0		+50	°C
Non-operating Temperature	T <sub>stg</sub>	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000	30,000		Feet
Shock & Vibration	SH / VI		Airborne		

## Solid State Matched Band High Power Amplifier

5010 - MBM3537DL

3.5 – 3.7 GHz / 20 Watts

### PROTECTIONS

Input Overdrive	0dBm	Max
Load VSWR @ nominal output	<b>Output Isolator</b>	Nom
Thermal Overload	85°C shutdown	Max

### OUTLINE DRAWING

