

M2560BP10 2500 – 6000 MHz / 10 Watts

The M2560BP10 is suitable for broadband high power L & S Bands linear and Jamming applications. This compact module utilizes high power advanced GaN devices that provide excellent power density, high efficiency, wide dynamic range and low distortions. 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. Sungsan's ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

- Solid-state Class AB linear design
- Instantaneous ultra broadband
- Small and lightweight
- Suitable for all modulation standards
- 50 Ohm Input/Output impedance
- High reliability and ruggedness
- Built-in control, monitoring and protection circuits

ELECTRICAL SPECIFICATIONS @ +28 VDC, 25°C, 50 Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	2500		6000	MHz
Power Output CW	PSAT	10	12		Watt
Power Output @ 1dB G.C.P	P _{1dB}		8		Watt
Power Gain @ 1dB G.C.P	G _{1dB}	40			dB
Input Power for Rated Output	P _{IN}		0	5	dBm
Small Signal Gain Flatness	ΔG		±1.0	±2.0	dB
Gain Adjustment Range (Optional)	VVA		25		dB
Input Return Loss	S ₁₁			-10	dB
Third Order Intercept Point 2-Tones @ 28dBm/Tone, Δ = 100kHz	IP3		+48		dBm
Noise Figure	NF			10	dB
Harmonics @ rated P _{1dB} G.C.P	2 nd		-20	-15	dBc
	3 rd		-20		dBc
Spurious Signals	Spur		-70	-60	dBc
Switching Time, 1kHz TTL, P _{IN} = 0dBm	T _{ON/OFF}			5	μs
Gain @ Shutdown Condition, P _{IN} = 0dBm	G _{MUTE}			-30	dB
Operating Voltage	V _{DC}	26	28	30	Volt
Quiescent Current	I _{DQ}		2		Amp
Current Consumption @ P _{OUT} = 10W	I _{DD}		2.7		Amp

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit	Limits
Operating Case Temperature	T _c	-20		+75	°C	
Storage Temperature	T _{stg}	-40		+85	°C	
Relative humidity (non-condensing)	RH			95	%	
Altitude	ALT	15,000	30,000	40,000	Feet	
Shock & Vibration	SH / VI		Airborne			

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LIMITS

Parameter	Value	Limits
Input Overdrive	+10dBm	Max
Load VSWR @ rated Pout	∞ @ all load phase & amplitude	Nom
Thermal Overload	Graceful Degradation	Nom

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	6.0 X 3.0 X 1.0	Inch	Max
Weight	1.0	lb.	Max
RF Connectors In/Out	SMA female		
DC/Control Connector	D-Sub - 9 Pin		
Cooling	External Heatsink		

DC CONNECTOR- D-Sub, 9Pin, Male

Pin #	Description	Specifications
1	Not Assigned	Reserved
2	Not Assigned	Reserved
3	Temperature Sense	Analog voltage relative to Module's Temperature @ 10mV/°C
4	VVA (Optional)	Continuous Analog 0 - 5VDC levels Maximum Gain: 5VDC Minimum Gain: 0VDC
5	Shutdown	Enable: TTL "Low" or Open Blanked: TTL "High" (Default)
6, 7	VDD	+28V \pm 2.0VDC
8, 9	GND	Ground

OUTLINE DRAWING

