

MU210BP5 20 – 1000 MHz / 5 Watts

The MU210BP5 is suitable for multi-octave bandwidth high power CW, modulated, and pulse applications. This amplifier utilizes high power GaN devices that provide wide frequency response and dynamic range, high gain, high efficiency, and good linearity. Exceptional performance, long-term reliability, and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, built in high quality power supply, EMI/RFI filters, machined housing, and qualified components. Sungsan's ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

- Solid-state Class AB design
- Instantaneous ultra broadband
- Standard Digital Control front panel manual gain adjust
- Suitable for CW, AM, and FM
- 50 ohm input/output impedance
- High reliability and ruggedness

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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	20		1000	Mhz
Output Power CW	P _{SAT}	5			W
Small Signal Gain	G		40		dB
Small Signal Gain Flatness	ΔG		±1.0		dB
Output Power P _{1dB}	P _{1dB}		2		Watt
Output Power Psat	P _{SAT}	5			Watt
Input Return Loss	S ₁₁	-10			dB
Third Order Intercept Point 2-Tones, P _{OUT} = 37dBm/tone, 1 MHz spacing	OIP3		-25		dBc
Harmonics	2 nd		-15		dBc
	3 rd		-10		dBc
Spurious Signals	Spur			-70	dBc
Consumption Current	I _{DD}		2.0		A
Operating Voltage	V _{DC}	27	28	29	V

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit	Limits
Operating Case Temperature	T _c	-20		+70	°C	
Storage Temperature	T _{stg}	-40		+85	°C	
Relative humidity w/o condensation	RH			95	%	
Altitude	ALT		20,000		Feet	
Shock & Vibration	SH / VI		Airborne			

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LIMITS

Parameter	Value	Limits
Input RF drive level without damage	+10dBm	Max
Load VSWR @ Pout = 20W	∞ @ 5:1 load phase & amplitude & Temp 70°C	Nom
Thermal Overload	85°C ±5°C shutdown Auto Recovery : +75°C ±5°C	Max

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions (excluding heatsink)	TBD	Inch	Max
Weight without HS / with HS	TBD	lb.	Max
RF Connectors In/Out	SMA 2 Hole, Female		
Interface Connector	D sub 9pin, Male		
Cooling	External Heatsink		

DC CONNECTOR- D-Sub, 9Pin, Male

Pin #	Description	Specifications
1	N/C	N/C
2	Current Monitor	Analog voltage relative to I _{DD} @ 50mV/100mA
3	Temp Monitor	Analog voltage relative to module's temperature @ 10mV/°C (+500mV)
4	VVA Control	+2.5V: Max. Attenuation 0V : Max. Gain VVA Control Range : > 25dB
5	Shutdown	Enable : TTL "Low" (Logic 0) or Open Disable : TTL "High" (Logic 1)
6,7	VDD	+28VDC ± 1VDC
8,9	GND	Ground

OUTLINE DRAWING

