PMDI
Microwave Components

2000-6000MHz/30WATT/SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Model Number: EL2060M45A

BROADBAND HIGH POWER AMPLIFIER MODULE

2000-6000MHZ/30WATT/MODULE
The model EL2060M43A is a multi-octave high power amplifier operating between 2000 MHz and 6000 MHz and offering a wide dynamic Range with 30 Watts typical saturated power. The employment of advanced high-power devices in manufacturing ensures this module exceptional power performance, long term reliability and high efficiency. It is ideal for multi octave broadband high-power S/C Band applications.

FEATURES:				
1. Broadband & High power.	**2.** High Efficiency.	**3.** Great Linearity.	**4.** Small Size & Light Weight.	**5.** Low Distortion

ELECTRICAL SPECIFICATIONS: @ +28.0VDC, 25°C, 50Ω

NO.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	BW	2000		6000	MHz
2	RF Output Power	Pout		30		Watt
3	Power Gain	G P		45		dB
4	Power Gain Flatness	Δ Gp		±3		dB
5	Input Return Loss	S11			-10	dB
6	Harmonics @20W	H		-15		dBc
7	Spurious Signals	Spur		-55		dBc
8	Switch On/Off@10-90% Time	TON/OFF		2	5	µs
9	In/Output Impedance	Impedance		50		Ω
10	Operating Voltage	VDC	24	28	30	Volt
11	DC Current @40W	IDD		8		Amp

MECHANICAL SPECIFICATIONS

NO.	PARAMETER	VALUE	UNIT	MAX
1	Dimensions	150x69x25 [5.9x2.7x0.98]	mm [inch]	Maximum
2	Weight	1.5[3.3]	kg [lbs.]	Maximum
3	RF Connectors Input	SMA, Female		
4	RF Connectors Output	SMA, Female		
5	DC Interface Connector	D-Sub 9-Pin, Male		
6	Cooling	External Heatsink Required (Not Supplied)		

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2000-6000MHz/30WATT/SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Model Number: EL2060M45A

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

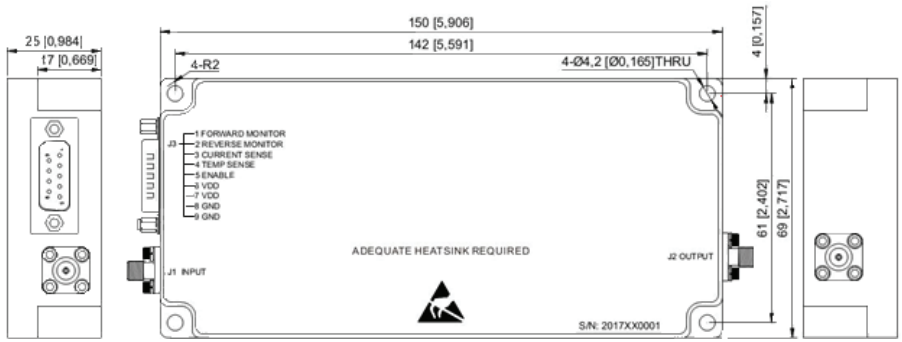
N0.	PARAMETER	MIN.	TYP.	MAX.	UNIT	NOTES
1	Operating Temperature	-20		55	°C	
2	Non-operating Temperature	-30		60	°C	Storage
3	Relative Humidity (non-condensing)			95	%	

N0.	ABSOLUTE MAXIMUM RATING	
1	Input RF drive level without damage	+10 dBm (Max)
2	Load VSWR @ POUT =30W	∞ @ all load phase & amplitude for duration of 1 minutes.10:1 @ all load phase & amplitude continuous
3	Over Temperature	85°C @ heatsink [restored @ 60°C]

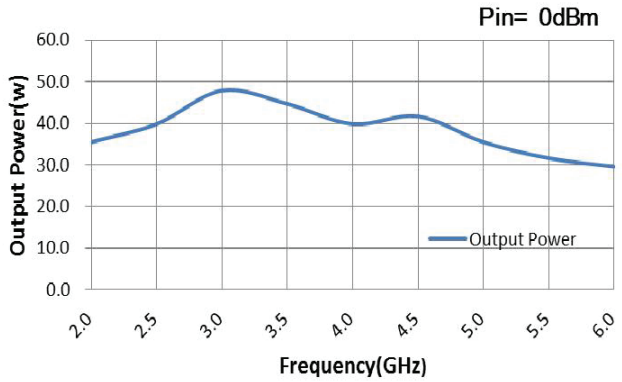
ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

PIN #	DESCRIPTION	SPECIFICATIONS
1	FWD	RMS Forward power detector
2	REV	RMS Reverse power detector
3	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
4	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
5	TEMP SENSE	Amplifier Enable: = TTL "0" = 0V or open; Disable= TTL/CMOS "1"
6	VDD	28VDC
7	VDD	28VDC
8	GND	Ground
9	GND	Ground

OUTLINE DRAWING (All dimensions in mm [inch])



TYPICAL PERFORMANCE PLOTS (For reference only)



Note:
dequate heatsink required.

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2-6GHZ, 400W, SOLID STATE POWER AMPLIFIER

Part Number: PA-020G060 - 400C

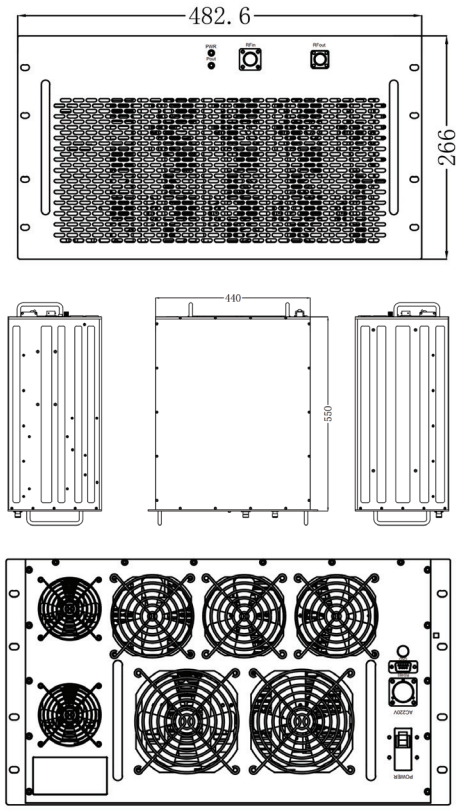
ELECTRICAL SPECIFICATIONS:

N0.	PARAMETER	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	2		6	GHz
2	Output Power CW @ Psat		400		W
3	Output Power after coaxial switch Over temperature and frequency	330			W
4	Power Gain	56			dB
5	Power Gain Flatness			±7	dB
6	Gain Adjustment Range	20dB, 0.5 step			
7	Input / Output VSWR		1.5	2:1	
8	Harmonics	15	20		dBc
9	Spurious	60	65		dBc
10	Maximum Input Power			10	dBm
11	Operating Voltage		28		VDC
12	Current Consumption			110	A

ENVIRONMENTAL SPECIFICATIONS

N0.	PARAMETER	MIN.	TYP.	MAX.	UNIT
1	Operating Temp.	-20		+60	°C
2	Storage Temp.	-40		+85	°C
3	Relative Humidity			95	%

Unit: mm **OUTLINE DRAWING** (Reference only)



Communication interface and power supply in the drawing will be changed in the final design stage.

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2-6GHZ, 400W, SOLID STATE POWER AMPLIFIER

Part Number: PA-020G060 - 400C

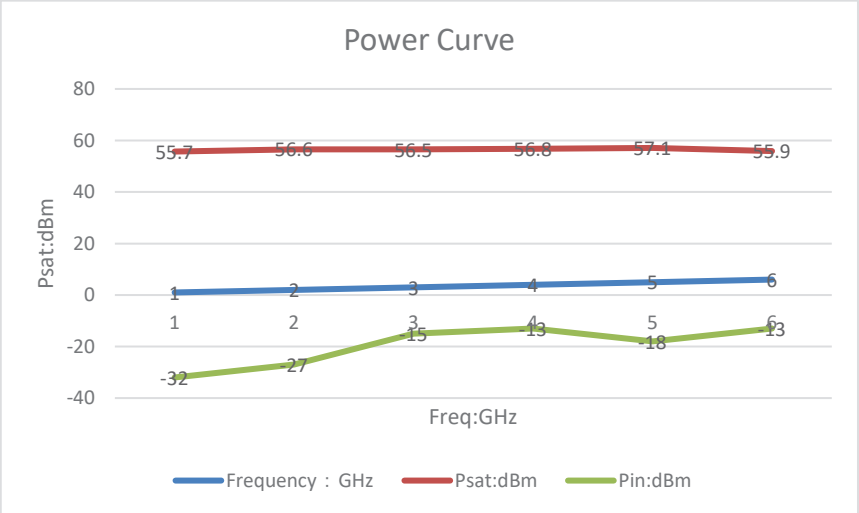
MECHANICAL SPECIFICATIONS

N0.	PARAMETER	VALUE
1	Dimension	19” Rack, 6U Height
2	Weight	60Kg
3	RF Input Connector	N-Female
4	RF Output Connector	N-Female
5	Power Connector	H45J4Z
6	Communication Interface	LAN
7	Cooling	Built-in Forced-air Cooling System

PROTECTION & MONITOR

N0.	PARAMETER	VALUE
1	Protections	Thermal Overload, VSWR Overload
2	Monitors	Forward Power, Reverse Power, Voltage, Current, Temperature

POWER TEST PLOT OF A SIMILAR UNIT



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Microwave Components

SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA002052M47A

20-520MHZ/50WATT/MODULE

The model PA002052M47A is a multi-octave high power amplifier operating between 20MHz and 520MHz and offering a wide dynamic Range with 50 Watts typical saturated power.

The employment of LDMOS and chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

FEATURES:

1. Small Size and light weight.	**2.** Instantaneous ultra broadband.	**3.** 50 Ohms input and Output matched.	**4.** Built-in control and protection circuits.

ELECTRICAL SPECIFICATIONS: @28V, 25°C, 50Ω System

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	BW	20		520	MHz
2	RF Output Power	P1DB		50		Watt
3	Power Gain	G P		47		dB
4	Power Gain Flatness	Δ Gp		±2.5		dB
5	Input Return Loss	S11			-10	dB
6	Harmonics @ POUT =010W	H		-10		dBc
7	Spurious Signals	Spur		-60		dBc

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
8	In/Output Impedance			50		Ω
9	Operating Voltage	VDC	24	28	32	Volt
10	DC Current@ 50W	I		7		A

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Microwave Components

SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA002052M47A

MECHANICAL CHARACTERISTICS.

N0.	PARAMETER	VALUE	UNIT	LIMITS
1	Dimensions	150x90x25 [5.91x3.54x1]	mm [inch]	Maximum
2	Weight	0.7 [1.54]	kg [lbs]	Maximum
3	RF Connectors Input	SMA, Female		
4	RF Connectors Output	N-Typ, Female		
5	DC Interface Connector	D-Sub 9-Pin,Male		
6	Cooling	External Heatsink (Not Supplied)		

ABSOLUTE MAXIMUM RATING

N0.	PARAMETER	VALUE	
1	Input RF drive level without damage	+10dBm	Maximum
2	Load VSWR @ POUT =25W	∞ @ all load phase & amplitude for duration of 1 minute ; 3:1 @ all load phase & amplitude continuous	
3	Thermal Overload	85°C shutdown	Maximum

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

N0.	PARAMETER	MIN.	TYP.	MAX.	UNIT
9	Operating Temperature	-40		60	°C
10	Non-operating Temperature	-45		65	°C
11	Relative Humidity (non-condensing)			95	%

J3 : DC INTERFACE CONNECTORS

PIN#	DESCRIPTION	SPECIFICATIONS
1	ENABLE	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
3	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
4	VDD	28VCC
5	VDD	28VCC
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	VDD	28VCC

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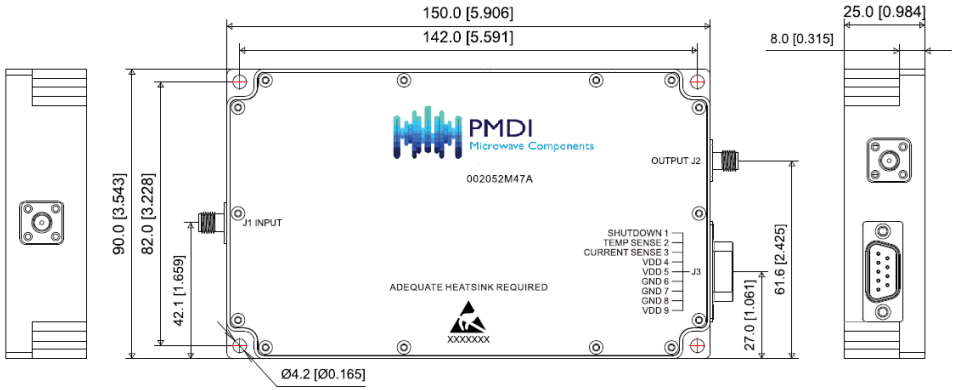
SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA002052M47A

MECHANICAL CHARACTERISTICS.

OUTLINE DRAWING



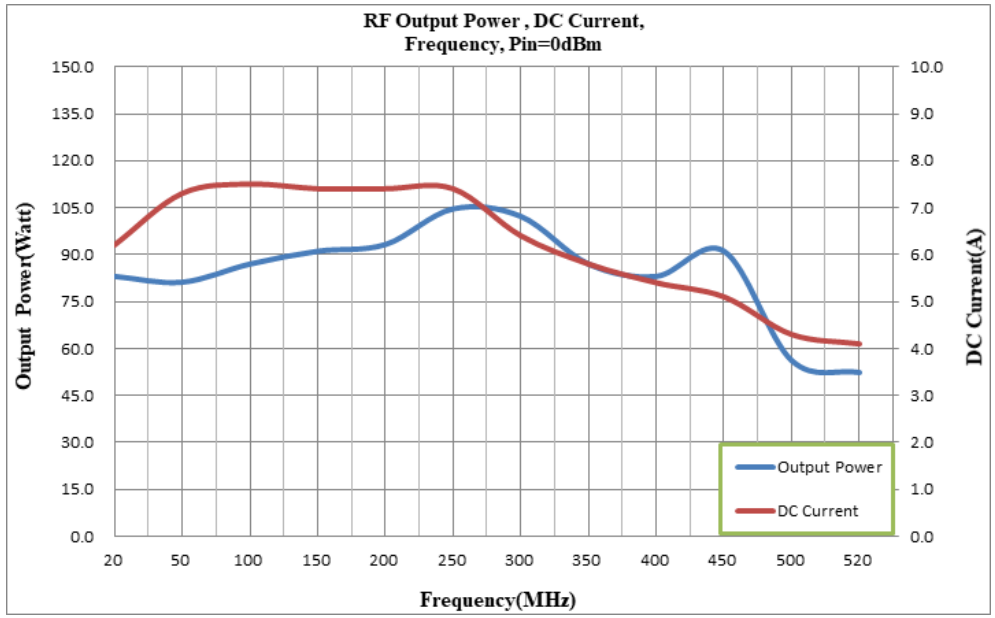
Note:

1. Dimension in mm [inch])

ENVIRONMENTAL CHARACTERISTICS

TYPICAL PERFORMANCES PLOTS

Graph 3: Output Power (Normal Temp. +25±3°C).



Note:

1. Adequate heat sink required.

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SPECIFICATION SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA002052M52A

20-520MHZ/150WATT/MODULE

The model PA002052M52A is a multi-octave high power amplifier operating between 20MHz and 520MHz and offering a wide dynamic Range with 150 Watts typical saturated power.

The employment of LDMOS and chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

FEATURES:

1. Small Size and light weight.	**2.** Instantaneous ultra broadband.	**3.** 50 Ohms input and Output matched.	**4.** Built-in control and protection circuits.

ELECTRICAL SPECIFICATIONS: @28V, 25°C, 50Ω System

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	BW	20		520	MHz
2	RF Output Power	P1DB	120	150		Watt
3	Power Gain	G P		52		dB
4	Power Gain Flatness	Δ Gp		±2		dB
5	Input Return Loss	S11			-10	dB
6	Harmonics @ POUT =010W	H		-10		dBc
7	Spurious Signals	Spur		-60		dBc
8	Third Order Intercept Point2 - Tone @ 36dBm/Tone, Δ = 500Hz	OIP3		50		dBm

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
9	In/Output Impedance			50		Ω
10	Operating Voltage	VDC	24	28	32	Volt
11	DC Current@ 010W	PD		15		A
12	Switching Time@10kHz TTL	Ton/Toff	2	±2	5	uS

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Microwave Components

SPECIFICATION SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA002052M52A

MECHANICAL CHARACTERISTICS.

N0.	PARAMETER	VALUE	UNIT	LIMITS
1	Dimensions	180x150x25 [7x5.9x1]	mm [inch]	Maximum
2	Weight	1.5 [3.3]	kg [lbs]	Maximum
3	RF Connectors Input	SMA, Female		
4	RF Connectors Output	N-Typ, Female		
5	DC Interface Connector	Hybrid,D-Sub 7-Pin,Male		
6	Cooling	External Heatsink (Not Supplied)		

ABSOLUTE MAXIMUM RATING

N0.	PARAMETER	VALUE	
1	Input RF drive level without damage	+10dBm	Maximum
2	Load VSWR @ POUT =100W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous	
3	Thermal Overload	85°C shutdown	Maximum

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
9	Operating Case Temperature	TC	-20	50	60	°C
10	Operating Voltage	TSTG	-25	28	65	°C
11	DC Current@ 010W	RH		15	95	%

J3：DC INTERFACE CONNECTORS

PIN#	DESCRIPTION	SPECIFICATIONS
A1	VDD	28VCC
A2	GND	Ground
1	ENABLE	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
3	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
4	GND	Ground
5	NC	No electrical connection

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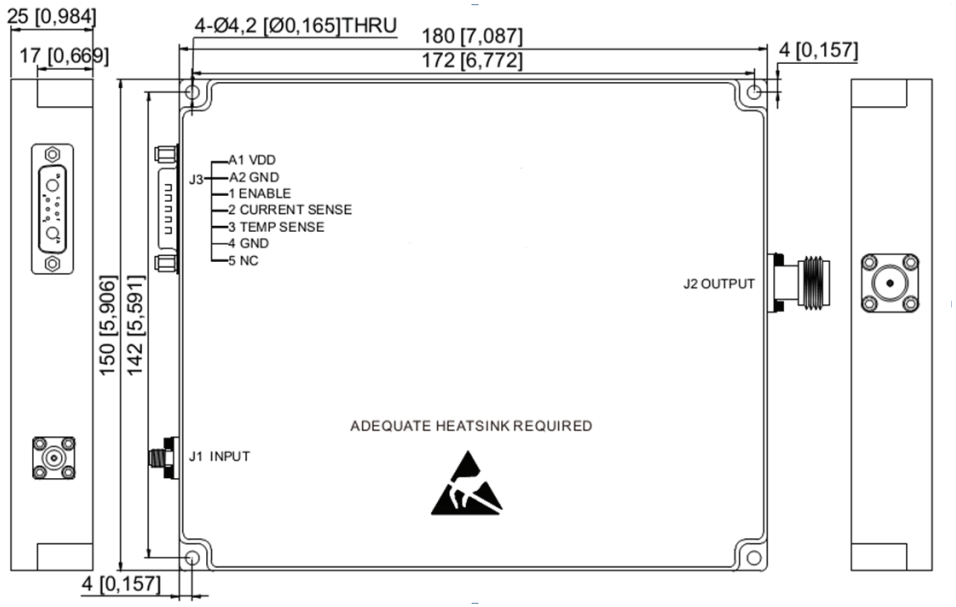
SPECIFICATION SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA002052M52A

MECHANICAL CHARACTERISTICS.

OUTLINE DRAWING



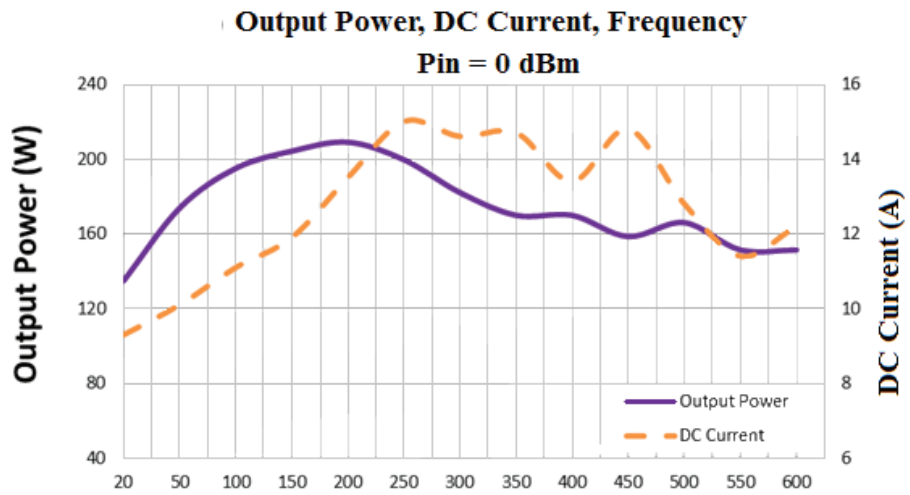
Note:

1. Dimension in mm [inch])

ENVIRONMENTAL CHARACTERISTICS

TYPICAL PERFORMANCES PLOTS

Graph 3: Output Power (Normal Temp. +25±3°C).



Note:

1. Adequate heat sink required.

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SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA080100M47A

800-1000MHZ/50WATT/MODULE

The model PA080100M47A is a high power amplifier operating between 800MHz and 1000MHz and offering a wide dynamic Range with 50 Watts typical saturated power.

The employment of chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

FEATURES:

1. Small Size and light weight.	**2.** Narrowband & High power	**3.** 50 Ohms input and Output matched.	**4.** Built-in control and protection circuits.

ELECTRICAL SPECIFICATIONS: @28V, 25°C, 50Ω System

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	BW	800		1000	MHz
2	RF Output Power @Pin=0dBm	P_{sat}		50		Watt
3	Power Gain	G P		47		dB
4	Power Gain Flatness	Δ Gp		±1.5		dB
5	Input Return Loss	S11			-10	dB
6	Harmonics @ POUT =25W	H		-25		dBc
7	Spurious Signals	Spur		-60		dBc

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
8	In/Output Impedance			50		Ω
9	Operating Voltage	VDC	24	28	32	Volt
10	DC Current@ 50W	I		7		A

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Microwave Components

SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA080100M47A

MECHANICAL CHARACTERISTICS.

N0.	PARAMETER	VALUE	UNIT	LIMITS
1	Dimensions	160x90x25 [6.29x3.54x1]	mm [inch]	Maximum
2	Weight	1.2 [2.6]	kg [lbs]	Maximum
3	RF Connectors Input	SMA, Female		
4	RF Connectors Output	N-Typ, Female		
5	DC Interface Connector	D-Sub 15-Pin,Male		
6	Cooling	External Heatsink (Not Supplied)		

ABSOLUTE MAXIMUM RATING

N0.	PARAMETER	VALUE	
1	Input RF drive level without damage	+5dBm	Maximum
2	Load VSWR @ POUT =25W	∞ @ all load phase & amplitude for duration of 1 minute ; 3:1 @ all load phase & amplitude continuous	
3	Thermal Overload	85°C shutdown	Maximum

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

N0.	PARAMETER	MIN.	TYP.	MAX.	UNIT
9	Operating Temperature	-40		60	°C
10	Non-operating Temperature	-45		85	°C
11	Relative Humidity (non-condensing)			95	%

J3 : DC INTERFACE CONNECTORS

PIN#	DESCRIPTION	SPECIFICATIONS
1,2,3,9,10	VDD	28VCC
4,5,11,12	GND	Ground
6	ENABLE	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
7	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
8	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
13	FORWARD SENSE	Analog voltage relative to forward power level
14	REVERSE SENSE	Analog voltage relative to reflected power level
15	ALARM	Amplifier Alarm indicator: Normally TTL Low

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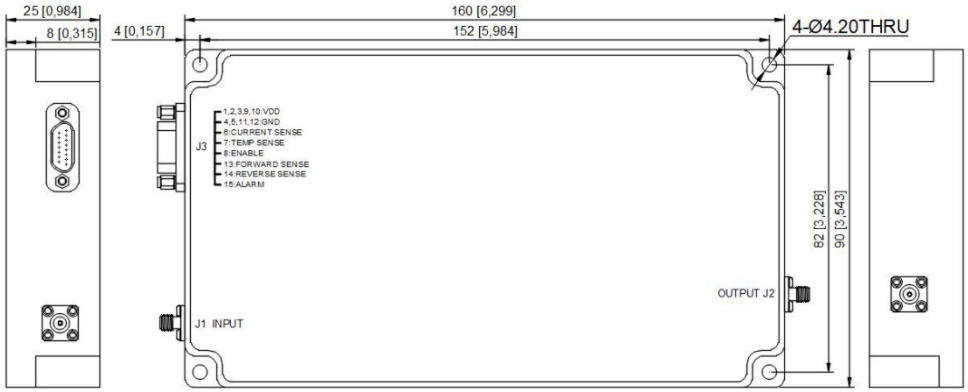
SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA080100M47A

MECHANICAL CHARACTERISTICS.

OUTLINE DRAWING

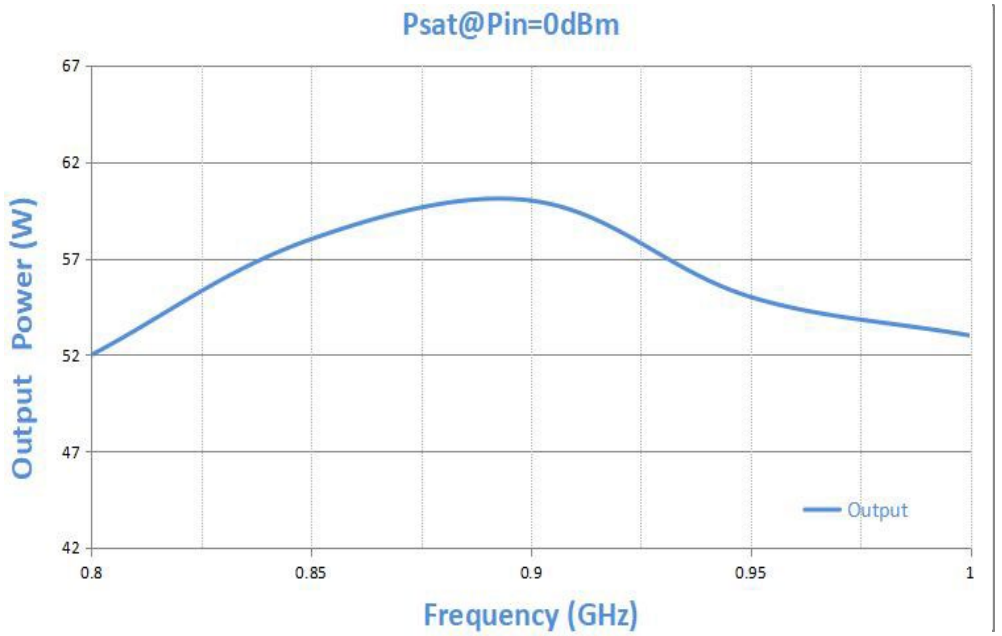


Note:

1. Dimension in mm [inch])

ENVIRONMENTAL CHARACTERISTICS

Graph 3: Output Power (Normal Temp. +25±3°C).



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SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA230250M47A

2300-2500MHZ/50WATT/MODULE

The model PA230250M47A is a high-power amplifier operating between 2300MHz and 2500MHz and offering a great linearity and a wide dynamic Range with 50 Watts typical saturated power.

The employment of chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

FEATURES:

1. Small Size and light weight.	**2.** Narrowband & High power	**3.** High Efficiency & Low Distortion	**4.** Built-in control and protection circuits.

ELECTRICAL SPECIFICATIONS: @28V, 25°C, 50Ω System

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	BW	2300		2500	MHz
2	RF Output Power	P_{sat}		50		Watt
3	Power Gain	G P		47		dB
4	Power Gain Flatness	Δ Gp		±1.5		dB
5	Input Return Loss	S11			-10	dB
6	Harmonics @ POUT =30W	H		-30		dBc
7	Spurious Signals	Spur		-55		dBc

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
8	In/Output Impedance			50		Ω
9	Operating Voltage	VDC	24	28	32	Volt
10	DC Current@ 50W	I		8		A

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Microwave Components

SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA230250M47A

MECHANICAL CHARACTERISTICS.

N0.	PARAMETER	VALUE	UNIT	LIMITS
1	Dimensions	150x90x25 [5.9x3.54x1]	mm [inch]	Maximum
2	Weight	1.5 [3.3]	kg [lbs]	Maximum
3	RF Connectors Input	SMA, Female		
4	RF Connectors Output	N-Typ, Female		
5	DC Interface Connector	D-Sub 9-Pin,Male		
6	Cooling	External Heatsink (Not Supplied)		

ABSOLUTE MAXIMUM RATING

N0.	PARAMETER	VALUE	
1	Input RF drive level without damage	+5dBm	Maximum
2	Load VSWR @ POUT =20W	5:1 @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous	
3	Thermal Overload	85°C shutdown	Maximum

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

N0.	PARAMETER	MIN.	TYP.	MAX.	UNIT
9	Operating Temperature	-40		60	°C
10	Non-operating Temperature	-45		85	°C
11	Relative Humidity (non-condensing)			95	%

J3 : DC INTERFACE CONNECTORS

PIN#	DESCRIPTION	SPECIFICATIONS
1,2	VDD	28VCC
3,4	GND	Ground
5	ENABLE	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
6	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
7	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
8	NC	
9	NC	

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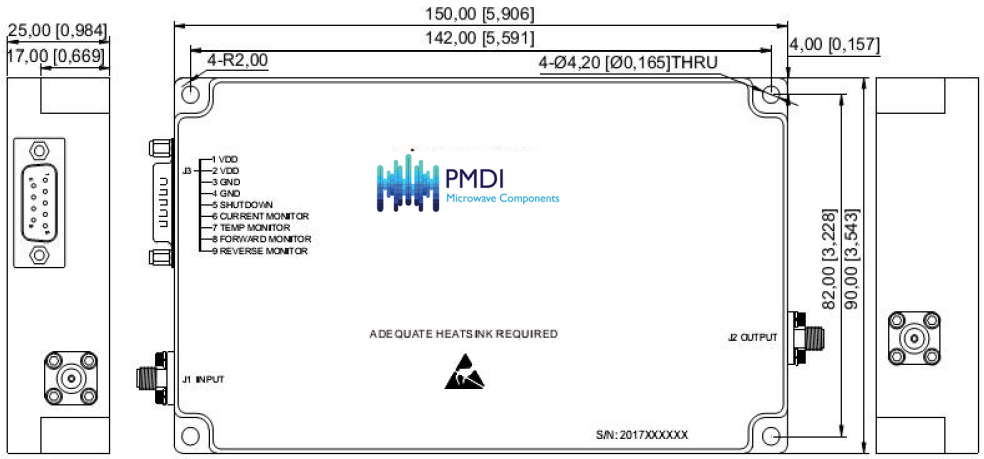
SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA230250M47A

MECHANICAL CHARACTERISTICS.

OUTLINE DRAWING



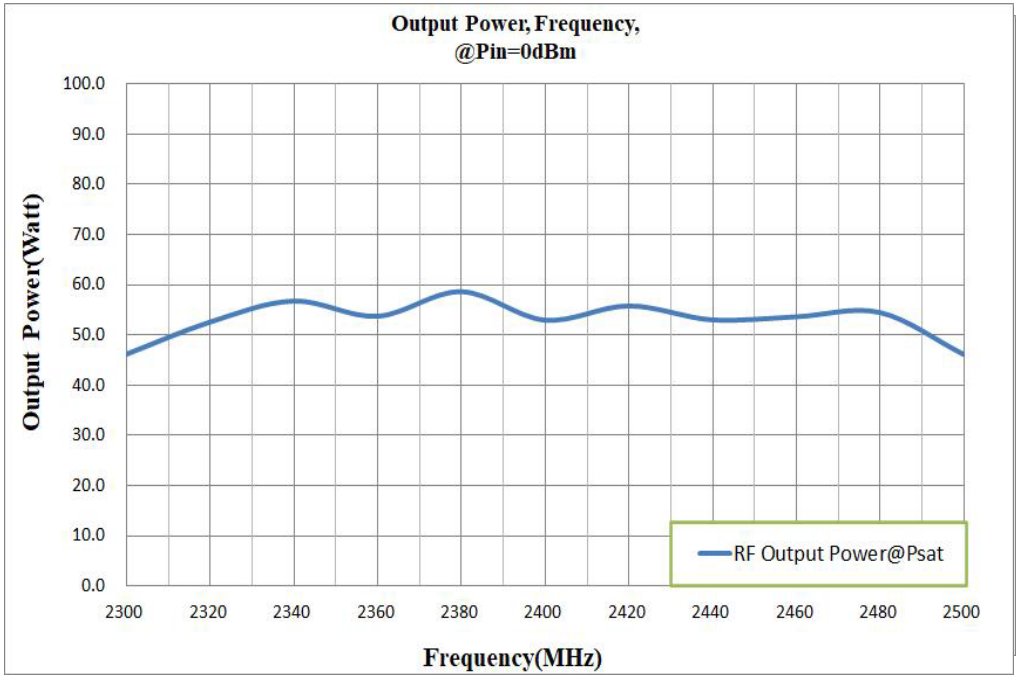
Note:

1. Dimension in mm [inch])

ENVIRONMENTAL CHARACTERISTICS

TYPICAL PERFORMANCES PLOTS

Graph 3: Output Power (Normal Temp. +25±3°C).



Note:

1. Adequate heat sink required.

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Microwave Components

SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA500600M47A

5000-6000MHZ/50WATT/MODULE

The model PA500600M47A is a multi-octave high power amplifier operating between 5000MHz and 6000MHz and offering a wide dynamic Range with 50 Watts typical saturated power.

The employment of chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

FEATURES:

1. Small Size and light weight.	**2.** Narrowband & High power	**3.** 50 Ohms input and Output matched.	**4.** Built-in control and protection circuits.

ELECTRICAL SPECIFICATIONS: @28V, 25°C, 50Ω System

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	BW	20		520	MHz
2	RF Output Power	P1DB		50		Watt
3	Power Gain	G P		47		dB
4	Power Gain Flatness	Δ Gp		±2.5		dB
5	Input Return Loss	S11			-10	dB
6	Harmonics @ POUT =010W	H		-15		dBc
7	Spurious Signals	Spur		-60		dBc

N0.	PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
8	In/Output Impedance			50		Ω
9	Operating Voltage	VDC	24	28	32	Volt
10	DC Current@ 50W	I		9		A

PMDI
Microwave Components

SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA500600M47A

MECHANICAL CHARACTERISTICS.

N0.	PARAMETER	VALUE	UNIT	LIMITS
1	Dimensions	160x100x25 [6.29x3.94x1]	mm [inch]	Maximum
2	Weight	1.5 [3.3]	kg [lbs]	Maximum
3	RF Connectors Input	SMA, Female		
4	RF Connectors Output	N-Typ, Female		
5	DC Interface Connector	D-Sub 9-Pin,Male		
6	Cooling	External Heatsink (Not Supplied)		

ABSOLUTE MAXIMUM RATING

N0.	PARAMETER	VALUE	
1	Input RF drive level without damage	+5dBm	Maximum
2	Load VSWR @ POUT =25W	∞ @ all load phase & amplitude for duration of 1 minute ; 3:1 @ all load phase & amplitude continuous	
3	Thermal Overload	85°C shutdown	Maximum

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

N0.	PARAMETER	MIN.	TYP.	MAX.	UNIT
9	Operating Temperature	-40		60	°C
10	Non-operating Temperature	-45		85	°C
11	Relative Humidity (non-condensing)			95	%

J3 : DC INTERFACE CONNECTORS

PIN#	DESCRIPTION	SPECIFICATIONS
1,2,3	VDD	28VCC
4,5,6	GND	Ground
7	ENABLE	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
8	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
9	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C

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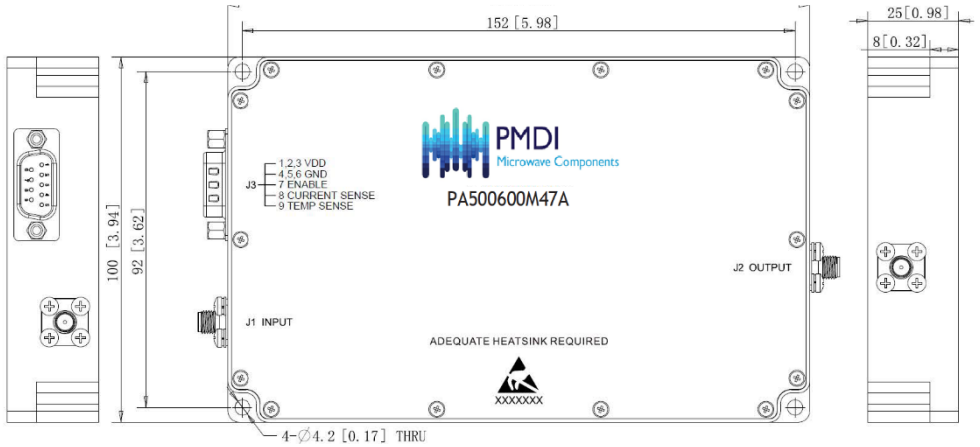
Microwave Components

SOLID STATE BROADBAND HIGH POWER AMPLIFIER

Part Number: PA500600M47A

MECHANICAL CHARACTERISTICS.

OUTLINE DRAWING

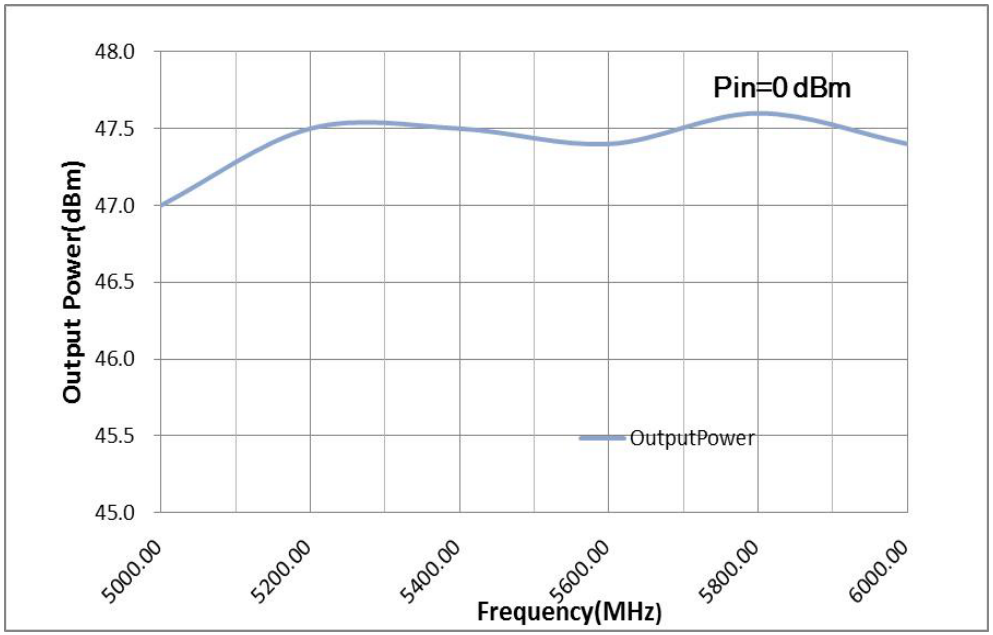


Note:

1. Dimension in mm [inch])

ENVIRONMENTAL CHARACTERISTICS

Graph 3: Output Power (Normal Temp. +25±3°C).



PMDI
Microwave Components

1100-1300MHz/50Watt/SOLID STATE HIGH POWER AMPLIFIER

Model Number: PA-11001300-47C

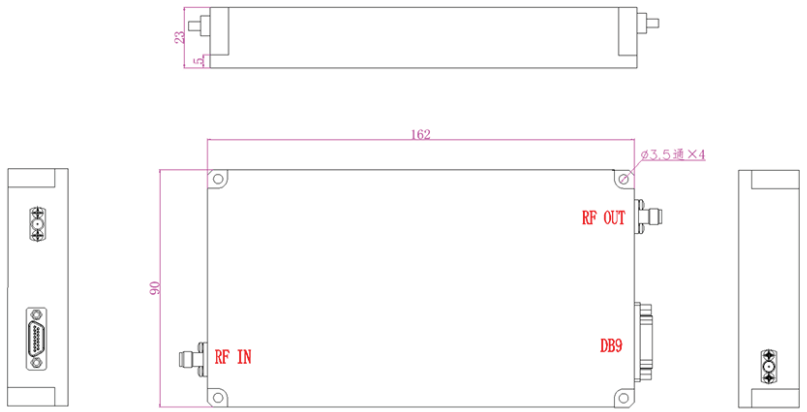
POWER AMPLIFIER SPECIFICATION

DESCRIPTION
The module is designed for both military and commercial applications. The latest device technologies and design methods are employed to offer high power density, efficiency, and linearity in a small, lightweight package.

SPECIFICATION: Typical performance at +28VDC +25°C, and in a 50Ω system.

NO.	PARAMETER	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	1500		1300	MHz
2	RF INPUT		0		dBm
3	RF INPUT NO Damage			10	dBm
3	P-1 Power Output	46	47		dBm
3	P-sat Power Output			48	dBm
3	Power Gain	46	47	48	dB
3	Power Gain Flatness		±1	1.5	dB
3	Input VSWR		1.5	2	
3	Operating Voltage	26	28	30	VDC
3	Spurious Signals			-60	dB
3	Harmonic Signals		-20	-15	dB
3	In-Out impedance		50		Ω
3	Current		7.5	8	A

OUTLINE DIMENSIONAL DRAWING



PMDI
Microwave Components

1100-1300MHz/50Watt/SOLID STATE HIGH POWER AMPLIFIER

Model Number: PA-11001300-47C

MECHANICAL

N0.	PARAMETER	VALUE	UNIT
1	Dimensions (L x W x H)	162*90*23	mm
2	RF Connectors (Input / Output)	SMA- KFD/ SMA- KFD	--
3	DC / Control Connector	DB9	--
4	Cooling	Air cooled heat dissipation, size to be determined	--
5	Mounting	3-4 Thru Hole	--
6	Weight	≤1.2	KG

N0.	INPUT/OUTPUT PINS		
	AMPLIFIER CONNECTOR TYPE:		DB9
	TRIAD CABLE PART NUMBER:		----------
	PIN NUMBER	**LABEL**	**DESCRIPTION**
1	1-3	+VDC	+28V
2	4-6	GND	Ground
3	7	Amp Enable	TTL Hi= Disable, TTL Lo or No Connection = Enable
4	8	FWD	Forward Power Detection (TTL Hi= Normal , TTL Lo =Fault)
5	9	REV	Reverse Power Detection (TTL Hi= Normal , TTL Lo = Fault)

ENVIRONMENTAL / PROTECTIONS

N0.	PARAMETER	MIN	MAX	UNIT
1	Operating Temp. (Housing Temp.)	-40	+55	°C
2	Humidity Range	+0-100		%
3	PA Baseplate Shutoff Temperature	85		°C
4	Finish	Natural color conductive oxidation of aluminum alloy surface		

PMDI
Microwave Components

1500-1650MHZ\50WATT SOLID STATE POWER AMPLIFIER

Part Number: PA-15001650-47C 50W

DESCRIPTION

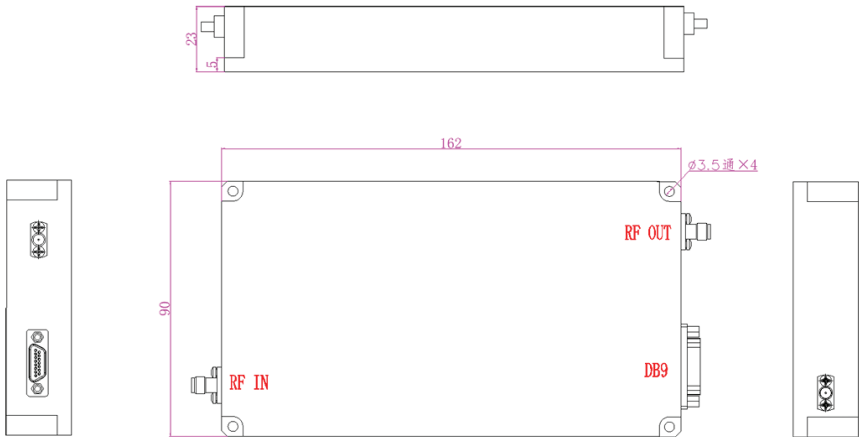
The module is designed for both military and commercial applications. The latest device technologies and design methods are employed to offer high power density, efficiency, and linearity in a small, lightweight package.

SPECIFICATIONS: TYPICAL PERFORMANCE AT +28VDC +25°C, AND IN A 50Ω SYSTEM.

RF / ELECTRICAL

N0.	PARAMETER	MIN.	TYP.	MAX.	UNIT
1	Operating Frequency	1500		1650	MHz
2	RF INPUT		0		dBm
3	RF INPUT NO Damage			10	dBm
4	P-1 Power Output	46	47		dBm
5	P-sat Power Output			48	dBm
6	Power Gain	46	47	48	dB
7	Power Gain Flatness		±1	±1.5	dB
8	Input VSWR		1.5	2	
9	Operating Voltage	26	28	30	VDC
10	Spurious Signals			-60	dBc
11	Harmonic Signals		-20	-15	dBc
12	In-Out impedance		50		Ω
13	Current		7.5	8	A

OUTLINE DIMENSIONAL DRAWING



PMDI
Microwave Components

1500-1650MHZ\50WATT SOLID AMPLIFIER STATE POWER

Part Number: PA-15001650-47C 50W

MECHANICAL

N0.	PARAMETER	VALUE	UNIT
1	Dimensions (L x W x H)	162*90*23	mm
2	RF Connectors (Input / Output)	SMA- KFD/ SMA- KFD	--
3	DC / Control Connector	DB9	--
4	Cooling	Air cooled heat dissipation, size to be determined	--
5	Mounting	3-4 Thru Hole	--
6	Weight	≤1.2	KG

ENVIRONMENTAL / PROTECTIONS

N0.	PARAMETER	MIN	MAX	UNIT
1	Operating Temp. (Housing Temp.)	-40	+55	°C
2	Humidity Range	0-100		°C
3	PA Baseplate Shutoff Temperature	+ 85		°C
4	Finish	Natural color conductive oxidation of aluminum alloy surface		

N0.	INPUT/OUTPUT PINS		
	AMPLIFIER CONNECTOR TYPE:		DB9
	TRIAD CABLE PART NUMBER:		----------
	PIN NUMBER	**LABEL**	**DESCRIPTION**
1	1-3	+VDC	+28V
2	4-6	GND	Ground
3	7	Amp Enable	TTL Hi= Disable, TTL Lo or No Connection = Enable
4	8	FWD	Forward Power Detection (TTL Hi= Normal , TTL Lo =Fault)
5	9	REV	Reverse Power Detection (TTL Hi= Normal , TTL Lo = Fault)