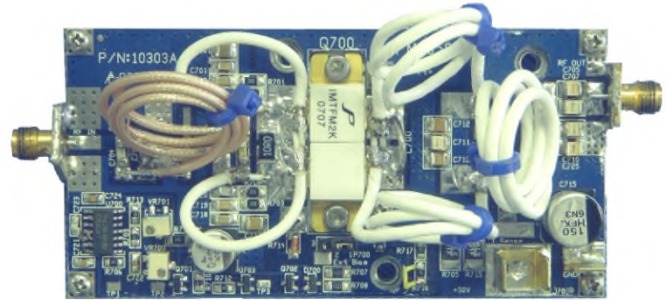




PP162-180 162 MHz – 180W Solid State Broadband High Power Pallet Amplifier

The PP162-180 a Class AB Pallet Amplifier providing CW Power output in excess 180 Watts. Featuring a rugged LDMOS Transistor, matched for 50-ohms input and output, the PP162-180 provides an excellent value for the transmitter integrator. Thermal Tracking Bias allows the PP162-180 to operate Class AB providing 180 watts P1dB minimum making it a superior choice.



Operating Specifications (Vsupply=+50 V_{DC}, I_{DQ}=0.1A, T_{Base}=25°C)

Parameter	Min.	Typ.	Max.	Units
Power Out P1dB	180	190		Watts
Power Gain		22		dB
Power In		29		dBm
Frequency		162		MHz
Drain Current		5.0		Amps
Efficiency	59	62		Percent
Input R/L		-28		dB
Second Harmonic		-55		dBc
Third Harmonic		-15		dBc
Baseplate Temperature	0	+60		°C
Baseplate Dimensions	2"x4"x1.5"			

- 180 Watts P1dB
- Linear Class AB
- 22 dB gain typical
- 50 Ohm input/output
- Thermal tracking Bias

Absolute Maximum Ratings

Parameter	Value
Input Voltage	+55V DC
Bias Current	1.0A
Drain Current	13A
Load Mismatch All Phase angles, I _D = 13A _{rms} , 2 Seconds maximum	5:1
Baseplate Temperature	+70 °C
Storage Temperature	-40 to +105 °C

PMT RF Products • 3107 N. Deer Run Road, Suite 20, Carson City, Nevada 89701 USA.

Tel: +1.775.883.1122 e-mail: sales@pmtrf.com web: <http://www.pmtrf.com>

Specifications contained herein are subject to change without notice.

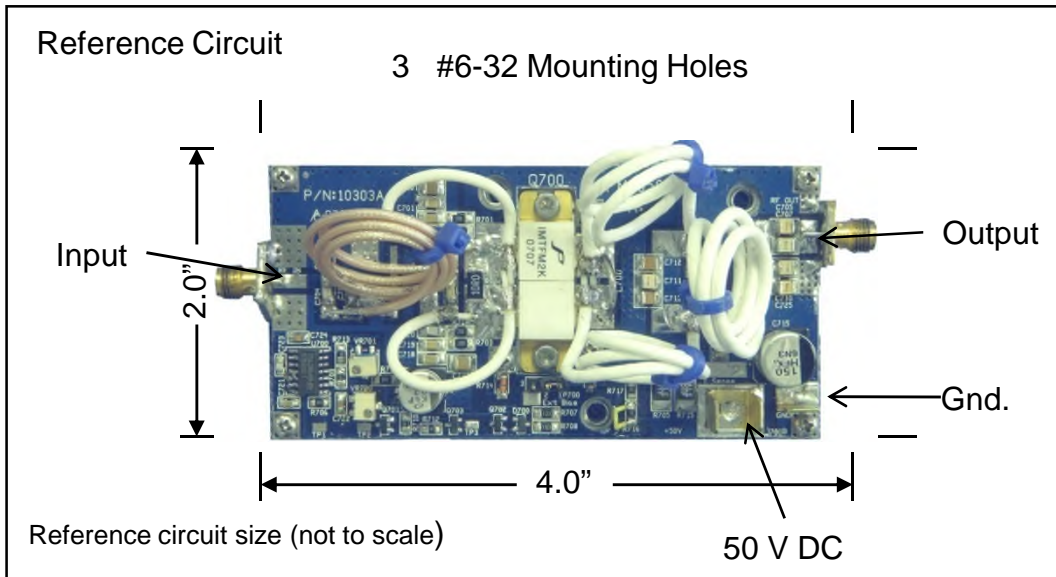
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PP162-180

162 MHz – 180W

Solid State Broadband High Power Pallet Amplifier



Tips for Mechanical Mounting:

1. All holes are clear for #6 screw. Stainless Steel mounting hardware is recommended, grade 18-8 or better. A lock washer of same material should be used.
2. Ensure mounting surface is flat to better than 0.003”/”
3. Use a thin layer of thermal compound on the backside of the PA – no more than 0.001” - 0.002” thickness!
4. Torque all screws to 10-12 in-lbs.
5. Use of cool air on top of pallet to keep output transformers cool is recommended, but not required. Output transformers are rated for continuous operation at 150 deg. C.

Amplifier Startup:

+Vsup should be applied to amplifier with no drive and no bias applied. A timing circuit on the amplifier controls voltages as required. TP3 is open collector, input ground to disable, float to enable. TP3 is a TTL input, hi or 1 to disable, low or 0 to enable.

Bias Current:

Bias has been pre-set at the factory to 0.1 mA at +50V DC. This bias point has been selected to offer the optimum balance between gain and efficiency. This amplifier is intended for Class C operation. If the bias point is changed, take great care not to exceed the maximum bias listed on page 1.

Amplifier shut down:

To prevent damage to the amplifier and surrounding systems drive should be removed prior to removing 50V DC. Please note that as with any Class C amplifier, even when disable is applied, the output of the amplifier can still be active.

P700:

Terminal 1 & 2 shorted together = self bias off 50V DC main supply. Terminal 2 & 3 shorted together = external 12-24V DC may be brought in @ pad Ext. Bias.

Miscellaneous:

Placing noisy analog or digital systems, such as additional control circuitry, directly over the top of transistors or RF path may cause improper operation. Care should be taken to locate these components where they will not cause interference.

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162 MHz – 180W
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High Power Pallet Amplifier

Revision History:	8-29-07	Data Sheet
Previous Versions:	4/1/07	Data Sheet
Page	Subjects (major changes since last revision)	
Added new picture		
Added Storage Temp. Spec.		
Added %0 V DC and Gnd. Locations		
Added Mech. Tips, Startup, Bias Current, Amplifier Shutdown, and Misc.		
Rev. 3	Product Name Change	3/19/09

We Listen to your comments

If there is any information within this document that you feel is wrong, unclear or Missing, please give us your feedback as it will help us to continuously improve The quality of this document. Please send your suggestions (including a reference To this document) to:

Bob.Todd@PMTRF.com

To request other information please call 1-775-883-1122

Attention please:

The information herein is given to describe certain components and shall not be Considered as a guarantee of characteristics. Terms of delivery and rights to Technical change reserved.

For further information on technology, delivery terms, conditions and prices, please Contact the sales department at PMT headquarters at 1-775-883-1122

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