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Sent: Wednesday, May 17, 2017 9:37 AM
To: jruggieri3@cfl.rr.com
Subject: 75W

Recommended supply voltage is +24 to +26Vdc.
Supply current is 16-18A depending on RF drive when in the enabled mode.
Idle mode current is only a few milliamps. Power gain is 18-20dB.
Power out for best linear operation is 60W with 0.8W input but can be used up to 80W with additional input drive.
This amplifier is optimized for 2.300-2348GHGz but will function up to 2.4GHz+ with lower gain and output power.
Circuit board is on an integral .062" solid hard copper heat spreader.
Both the board upper surface and the heat spreader surface are heavy gold plated. Board needs to be mounted on a heat-sink using 7ea. 4-40 screws in existing holes using thermal compound. RF input and outputs are 50 ohm strip-line and will butt up to a standard SMA or N launch connector. SMA connectors are rated to 400W @ 2GHz and work very well for this amp. The XFR286 Lateral Mosfets used on this board can handle a 10:1 VSWR @ full power so isolators are not required.

Dc connector pin-out::

- 1, Temperature output = 10MV/ degree F.
- 2, PTT = +13V To enable all 3 power FETs.
- 3, Drain current monitor for Q1. 1volt out/amp of drain current.
- 4, Drain current monitor for Q2. 1volt out/amp of drain current.
- 5, Ground.
- 6-10 are no connection.

For best linear operation, adjust pots for drain current while monitoring the voltage on pin 8 of each of the 3 MAX 472 ICs. This voltage can also be measured at pins 3 and 4 of

the DC connector for Q1 and Q2. This voltage should be 2.0v which equals 2A drain current for each output transistor and 2.5A for the input driver transistor measured on pin 8 of each of the MAX 472 IC next to the driver device. This is the quiescent current, no RF applied!

Pin 2 can be used for enable (Key/PTT) by applying +13v to this pin @ about 50ma. If you wish to use a low (ground) for keying use a small dip relay to connect the 13v to the enable pin when the coil is energized.

The +26v is the rectangular pad to the right of the 10 pin connector. Ground is the back side of the board.

Pin one on the connector is the pin on the corner closest to the 26V pad. Pin 2 is to the left of pin one and from there they stagger back and forth as you go the connector top.

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