



DEM Part Number 2360PA and 2360PAS
60 Watts, 1240-1300 MHz Linear Amplifier

Specifications

Frequency range:	1240 to 1300 MHz
Power Out (linear):	60 Watts
Power Out (saturated):	>80 Watts
Power Input for rated linear power out:	100mW, other drive levels optional
Power requirements:	13.8 VDC @ 18 amps.
Connectors:	Type "N" female
Size:	6" L x 5.5" W x 3.5" H
Active devices:	2 - RA18H1213G
Options:	PAS = T/R switch installed

The 2360PA is a broadband linear power amplifier covering the entire 23 CM amateur band with no tuning. It has a linear power output of 60 Watts min. with 100mW of drive or a saturated output of over 80 Watts. Type "N" connectors are used on both input and output. The 2360PA requires well-regulated 13.8 VDC at 18 A for full power output. Keying is done by PTT to ground and will source approximately 20 mA. A T/R switched version is available, the 2360PAS. This design is not recommended for AM ATV use but may be used in any FM, SSB, or CW application.

This amplifier design utilizes the combining of two Mitsubishi RA18H1213G MOSFET hybrid power modules. All regulated voltages and biasing that are required for proper operation are self-contained.

Caution: Do not exceed the specified drive level of 200 mW RF. This is the maximum drive level of the amplifier in its stock form. The amplifier may be fitted with internal attenuators to accommodate any drive level. Be sure to read your amplifiers data sheet for its drive level configuration.

Do not exceed 15 volts on the DC line. When in operation, utilize over voltage protection and any voltage sensing circuits that the power supply in use may offer. With high current drain, voltage sag will inhibit the amplifier output power performance and with lower quality power supplies, the voltage may soar beyond the amplifiers specified limits when un-keyed.

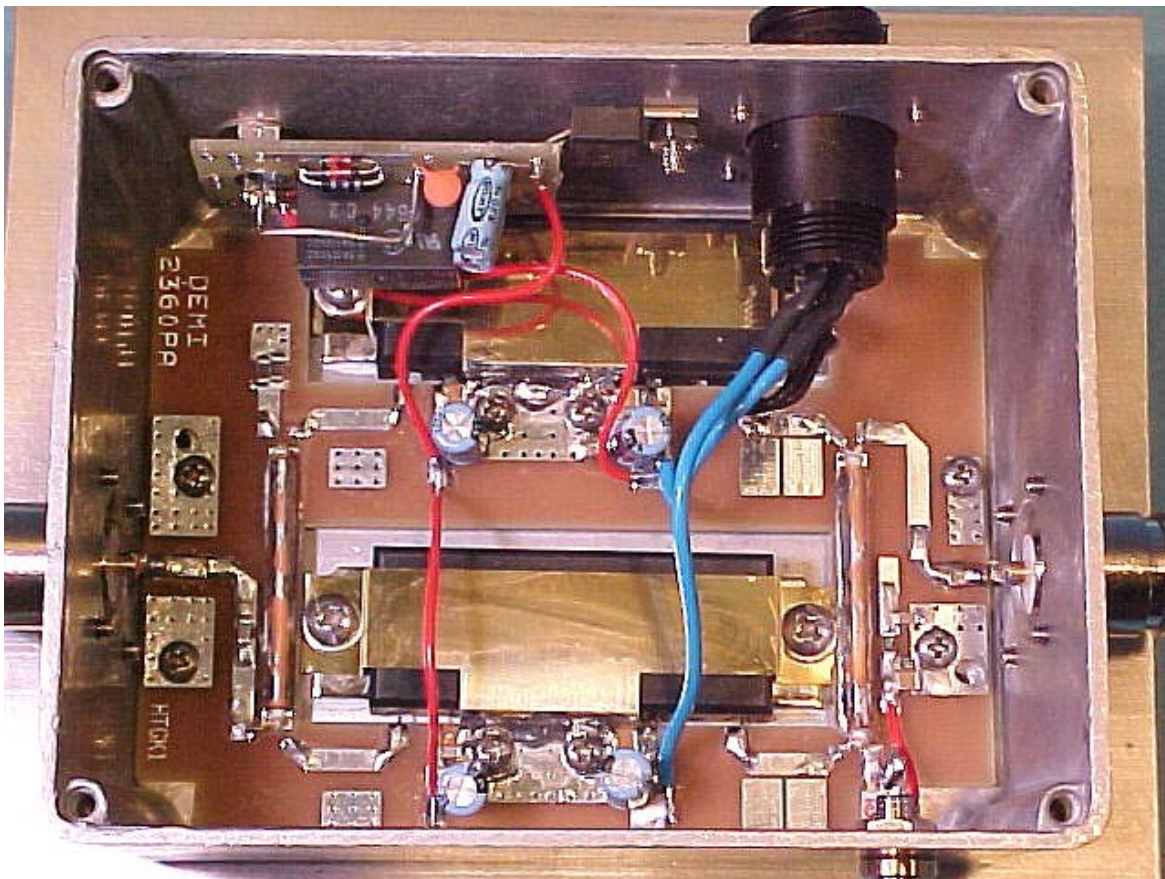


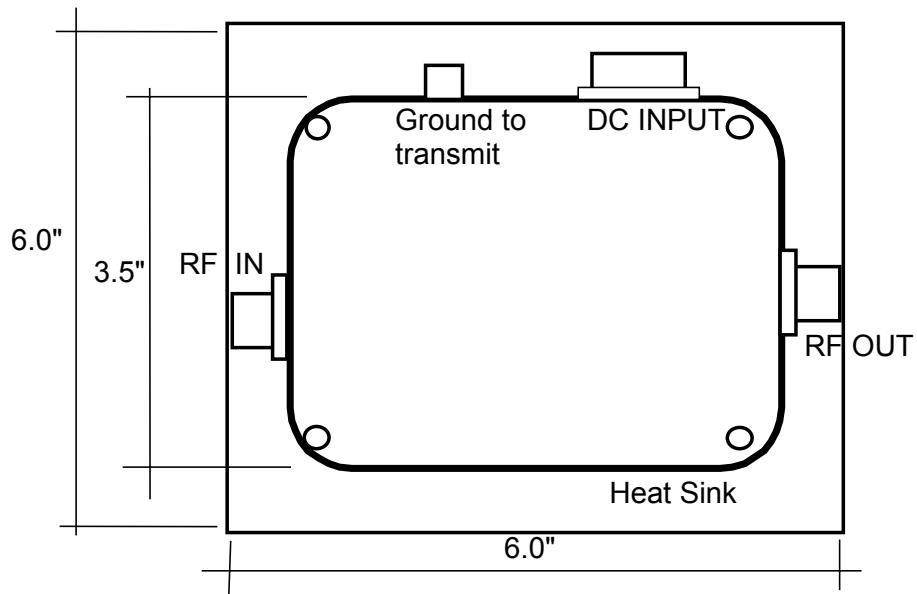
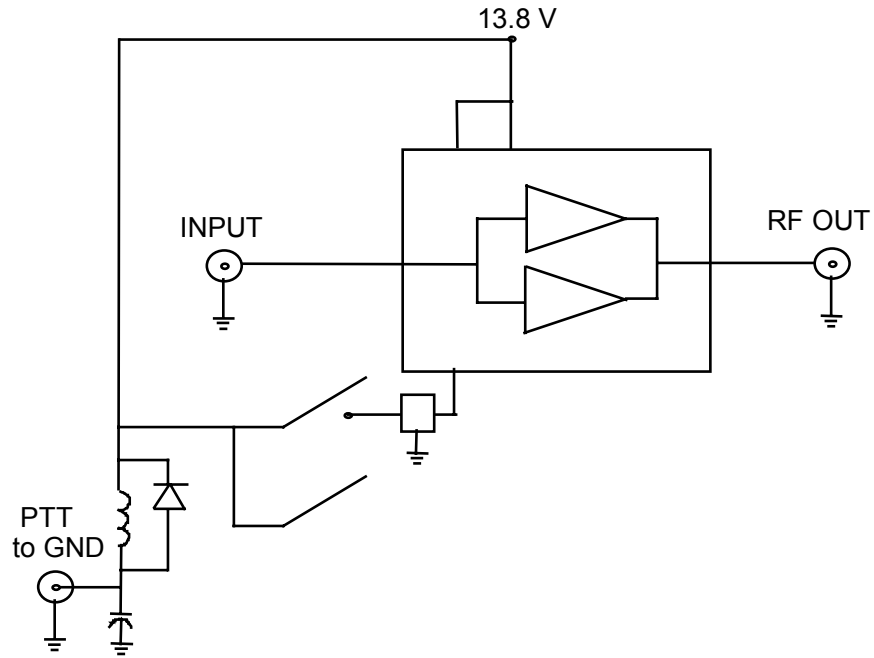


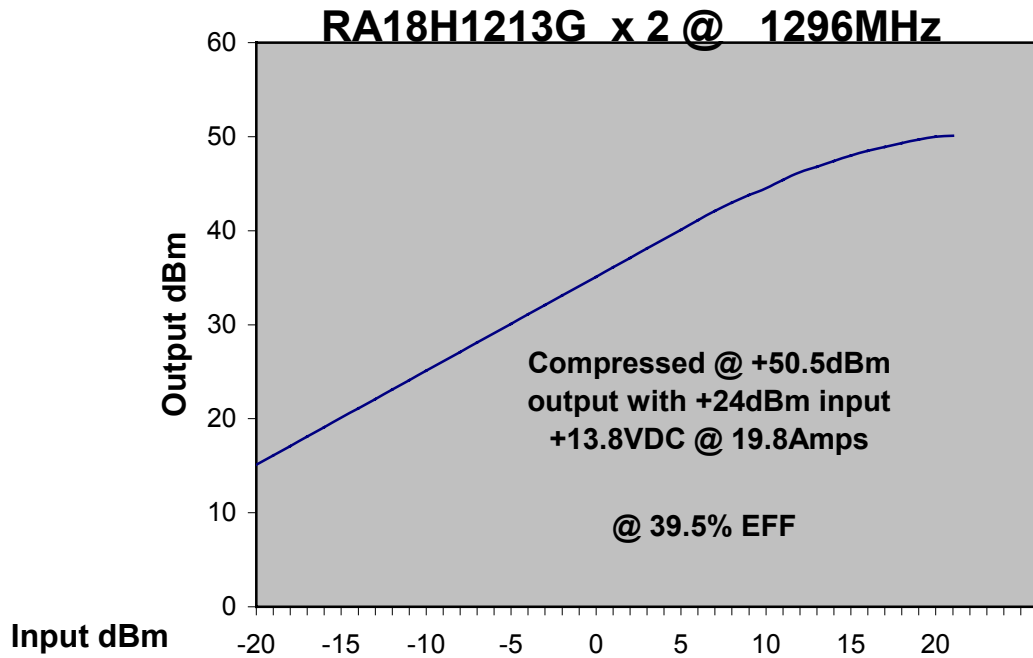
Use high quality coaxial cables on both RF connections. At 1300 MHz., VSWR and insertion loss become factors even in the shortest lengths of coax. Test all coaxial components at low levels before installing into the final system.



Install the amplifier with the heat sink on top or with the fins vertical so the amplifier will convection-cool. A fan is recommended to blow air through the heat sink fins in any mode of operation but is specified for continuous duty applications. It is also recommended not to keep the amplifier continuously keyed in the transmit mode without applying RF drive.







+12.5dBm = 1dB Gain comp. = +46.6dBm @ 34.1dBG
+14.8dBm = 2dB Gain comp. = +47.9dBm @ 33.1 dBG
+16.6dBm = 3dB Gain comp. = +48.7dBm @ 32.1dBG