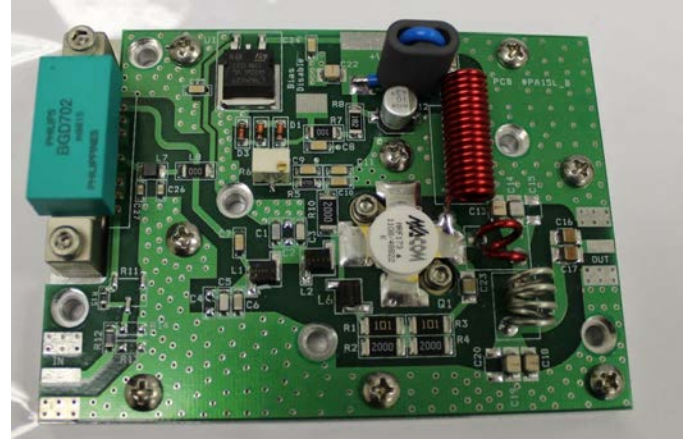


Model VHFTV-15L TV Pallet Amplifier Module

This amplifier module is ideal for driver stages in analog and digital TV broadcast equipment.

- 55– 88MHz
- 28Volts
- Pout: 15W Peak Sync analog.
- 40dB Gain Class A
- MACOM MRF173 Mosfet
- Made in the USA

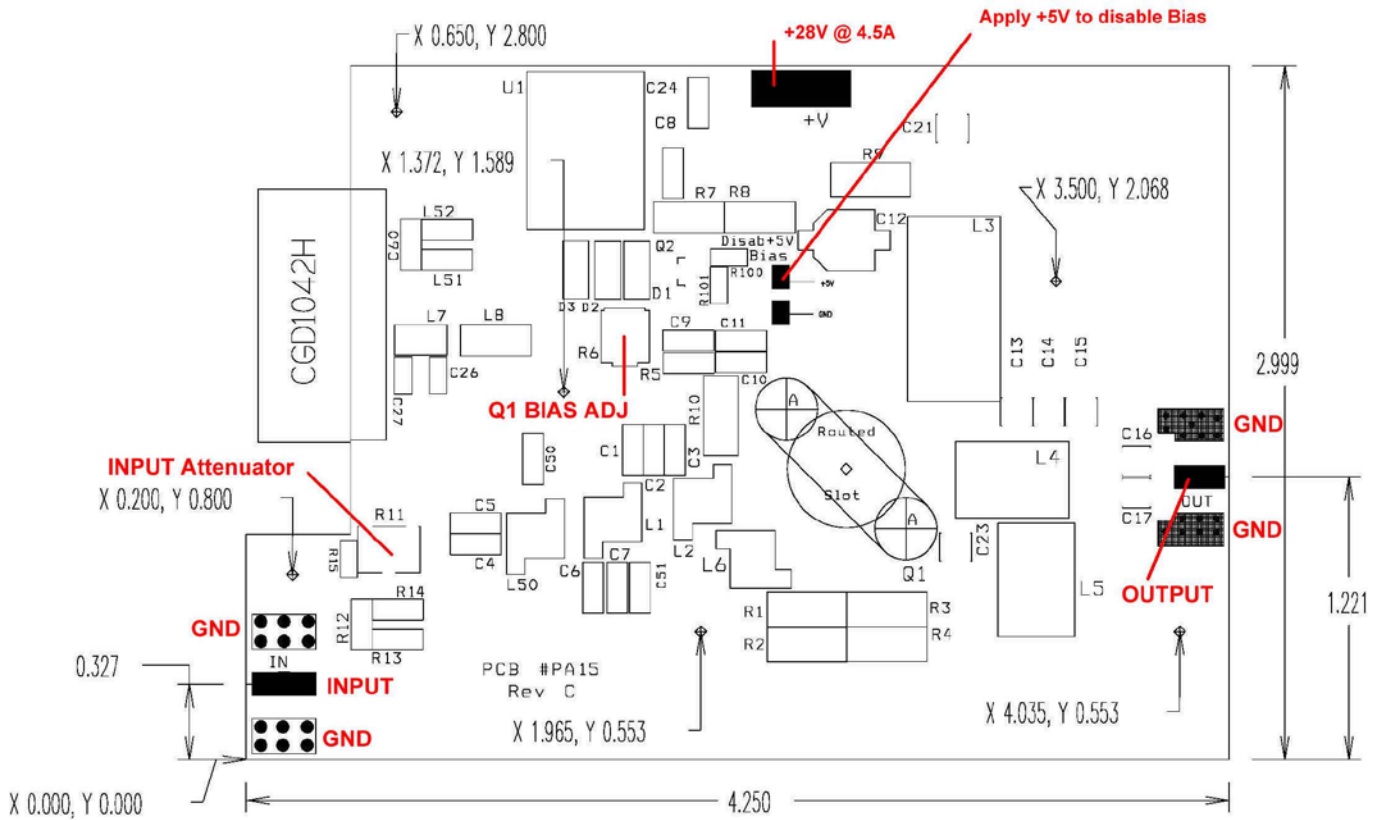


Dimension (L x W x H inch) [4.25" x 3.0" x 0.75"]

Absolute Maximum Ratings			
Symbol	Parameter	Value	Unit
Vs	Drain voltage supply	32	V DC
Is	Supply Current	4.5	A dc
VSWR	Load Mismatch (All phase angles, Id=12A)	10 to 1	
Tc	Base plate operating temperature	0 to +60C	Celsius
RF IN	RF Input	13	dBm

Electrical Specifications: 28VDC 3.5A				
Characteristics	min	typ	max	unit
Operating Frequency range	45		90	MHz
Power Input		5	13	dBm
Input return loss	-12	-15		dB
Power Gain	40	41	43	dB
Collector Efficiency		15		%
Supply Voltage		28		V dc
Insertion Phase variation (unit to unit)		+/-5.0		degrees
Power gain (unit to unit)		+/-0.5		dB
Two Tone IMD; 15W pep 1MHz sp		-40		dBc
F2 Second Harmonic		-30dB		dB
F3 Third Harmonic		-40dB		dB
Bias Current: Factory set to 3.0A @28V. for Q1	3.0	3.0	3.0	A dc
DVB-T Power		3		W
8VSB Power		5		W
Analog Power (peak sync)		15		W

Amplifier Drawing: Figure 1



Download a DXF drawing: <http://broadcastconcepts.com/80watt/fmdriver/P50FM42A.DXF>

Heatsink Mounting/Hardware

Tips for Mechanical Mounting:

- 1 All mounting holes designated in (X, Y) format are 0.156 inch thru and they are deigned for a #6 Screw. Stainless Steel mounting hardware is recommended, grade 18-8 or better. A lock washer of same material should also be used.
- 2 Ensure mounting surface is flat to better than 0.0025"
- 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

Warning: Failure to use a proper heat sink will reduce product service life and may cause the transistors to burn out. This type of failure is not covered by warranty. This product can be ordered with a custom heat sink. Please contact factory for more information.

Notes:

The factory bias settings are 3.0A @ 28V for Q1. The NXP CATV class A driver stage and its associated voltage regulator consume 0.5A. This results in a total current draw of 3.5 Amps at 28 volts with no RF applied. Since this is a class A amplifier the current draw will stay very close to 3.5A at full output power.

Do not attempt to adjust the bias on Q1. Increasing or decreasing the bias of Q1 will reduce the IMD performance of the amplifier.

Applications:

This driver amplifier is ideal for driving (1) 200W or (1) 400W TV pallet. This amplifier can be driven directly by most TV modulators. A modulator capable of at least 58dBmV (10mw) should be used.