Broadcast Concepts Inc
11700 NW 102nd Road Suite 4 Miami FL 33178
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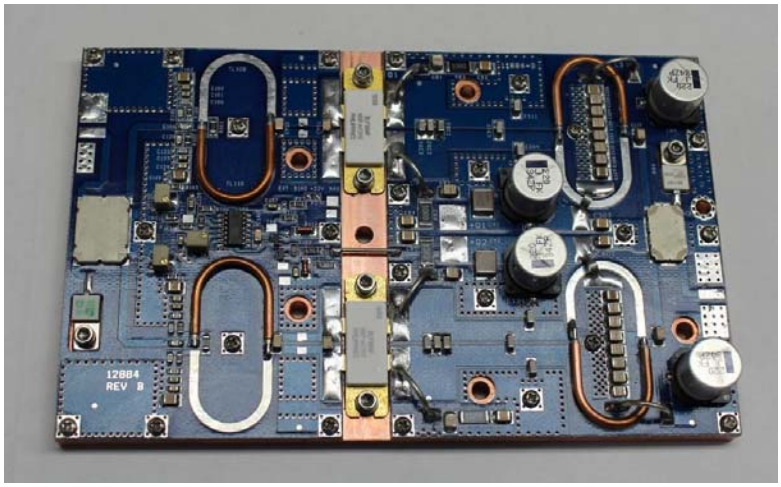
Model: UHFTV-200D-19 TV Pallet Amplifier Module

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

- **470– 860MHz**
- **50Volts**
- **Pout: 400W Peak Sync analog.**
- **140W DVB-T/ 180W 8VSB.**
- **19dB Gain**
- **Thermal Tracking Bias**
- **NXP BLF884P Devices**
- **Alloy 145 copper base**
- **Made in the USA**



Dimension (L x W x H inch) [6.2” x 3.9” x 0.75”]

Absolute Maximum Ratings			
Symbol	Parameter	Value	Unit
Vs	Drain voltage supply	52	V DC
Is	Supply Current	12.5	A dc
VSWR	Load Mismatch (All phase angles, Id=12A)	10 to 1	
Tc	Base plate operating temperature	0 to +70C	Celsius
RF IN	RF Input	4	Watts

Electrical Specifications				
Characteristics	min	typ	max	unit
Operating Frequency range	470		860	MHz
Power Input		3.0	4	W
Input return loss	-18	-20		dB
Power Gain	18	19		dB
Collector Efficiency at 150W 8VSB	30	35		%
Collector Current @ 150W 8VSB		9.0	10.0	A dc
Supply Voltage		50		V dc
Insertion Phase variation (unit to unit)		+/-5.0		degrees
Power gain (unit to unit)		+/-0.5		dB
Two Tone IMD; 400W pep 1MHz sp		-40		dBc
F2 Second Harmonic		TBD		dB
F3 Third Harmonic		TBD		dB
Bias Current: Factory set to 1.2A @50V. per device.		1.2		A dc
DVB-T Power		140		W
8VSB Power		180		W
Analog Power (peak sync)		400		W

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This amplifier has 2 +50V connection points. These connections may be bridged together and a single wire can be used to supply power. The recommended power supplies for this module are Meanwell SE1000-48 or RSP1000-48. The maximum DC current rating is 12.5A; however, the power supply should be rated for 20% more power than this rating for margin; therefore, any regulated DC supply with 15A capacity or greater may be used with this module. *It is not necessary to connect a ground wire directly to the module. Connect ground to the heatsink.*

Bias adjustment is generally not required; however, if necessary bias pots VR100 and VR102 can be used to set the bias. (These pots are labeled Q1, Q2 in the diagram below). While adjusting bias it is necessary to monitor the DC current flowing to each transistor. During this procedure the 2 +50V pads should be powered separately to allow independent current monitoring of each transistor. Adjusting the bias of Q1 will affect the bias of Q2 since both transistors are getting their bias from 1 source. The thermal comp pot VR101 does not require adjustment. It is set at the factory to 7.2V on TP1. TP1 is located closest to pot VR100. *Bias adjustments must be done with the module connected to a current limited DC power supply to avoid accidental overbias damage.*

External bias allows advanced users to bias the transistors from an external source. A +12V to +32V supply can be used for this purpose. 0 ohm resistor P1 must be removed and installed in location P2 and the bus bar from the 50V supply to R104 must be removed. If external bias is not required ignore this section as the modules are shipped internal bias configured.