DEM Part Number 2303PACK, 2303PAK and 2303PAPK
2.5Watts, 1240 to 1300 MHz Linear Amplifier

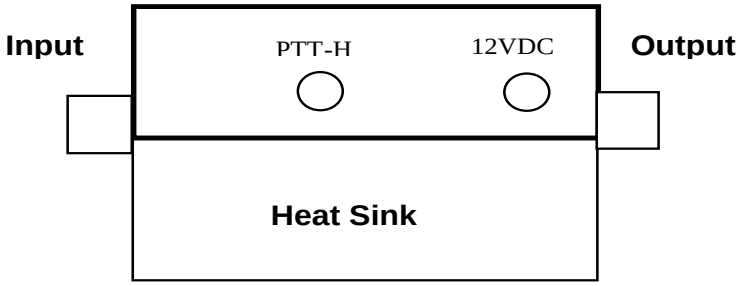
Specifications

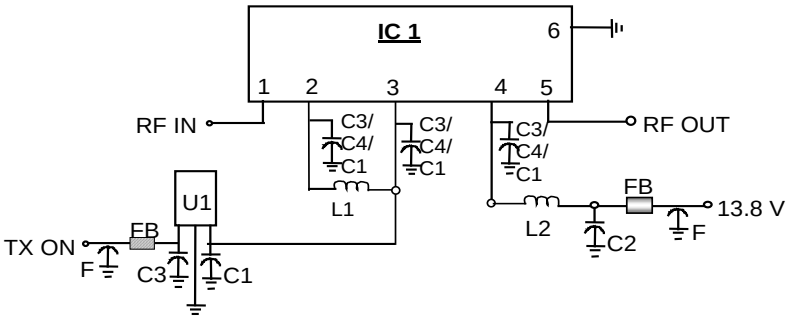
Frequency range:	1240-1300MHz
Power Out (at 1dB compression):	2.5Watts
Power Out (saturated):	>4Watts
Power Input for rated power out:	10mWatts max., 5mWatts linear
Power requirements:	13.8VDC @ 2 amps. max.
Connectors:	Type “N” female
Size:	3.0"L x 2.25"W x 2.25"H
Active devices:	M67715

Instructions for use:

The 2303PA is a broadband linear power amplifier covering the entire 23cm band with no tuning. It has a linear power output of 2.5Watts min. with 5mW of drive or a saturated 4+Watts with a maximum of 10mW of drive. Type “N” connectors are used on both input and output. The 2303PA requires well-regulated +13.8 VDC at 2A for full power output. Since it is a linear amplifier, it can be used for all modes in the 23cm band (reduced output ratings for ATV use).

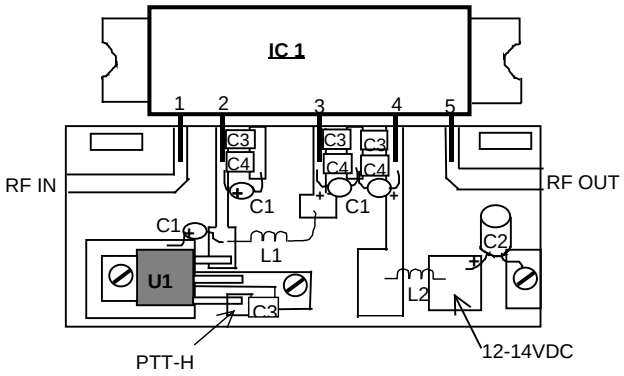
Caution: Do not exceed 20mW RF input, or +14.5 volts on the DC line. Use high quality coaxial cables on both RF connections. Install the amplifier with the heat sink up or with the fins vertical so the amplifier will convection-cool.





Parts List

	Qty	Description
C3	4	0.1µF chip
C4	3	100 pF chip
C2	1	100µF electrolytic
C1	4	2.2µF electrolytic
U1	1	78S09CV regulator
L1, L2	2	8T, #24 1/8" dia.
IC1	1	M67715
	1	Printed circuit Board



Assembly Instructions (assume the Complete Kit Version):

1. Install all components on PCB, except for IC 1 and U1.
2. Install PCB on heat sink with U1 and three # 4 screws. Do not tighten.
3. Attach "N" connectors to heat sink with four #4 screws. Do not tighten.
4. Install RCA connectors on side holes of enclosure. Do not use ground lugs.
5. Install enclosure between "N" connectors with RCA connectors positioned by Voltage input.
6. Install four more # 4 screws to attach "N" connector to enclosure. Do not tighten.
7. Apply thermal compound to IC 1 and install using two #4 screws. Do not tighten.
8. Once everything is aligned properly, proceed to tighten all screws. Solder U1 leads to PCB. Cut the excess lead length of IC1 and solder.
9. Use wired beads to make connection from RCA connector to the PCB.
10. Solder "N" connector pins.
11. Install loads on Input and Output connectors and apply voltage to the +12VDC. Apply +12VDC to the PTT-H connection. Verify +9.0V on pin 2 and 3, then 12VDC on pin 4. Idle current should be approximately 200mA. Apply Drive and measure output power. Do not exceed 20mW.
12. Install cover and screws with rubber feet.

Hardware for Complete Kit (PACK)

2	RCA connectors	1	enclosure
2	Type "N" connectors	1	Cover
13	4-40 x 3/16" Pan screws	4	4-40 x 1-1/4" screws
2	Wired beads	1	Heat sink
		4	Rubber feet