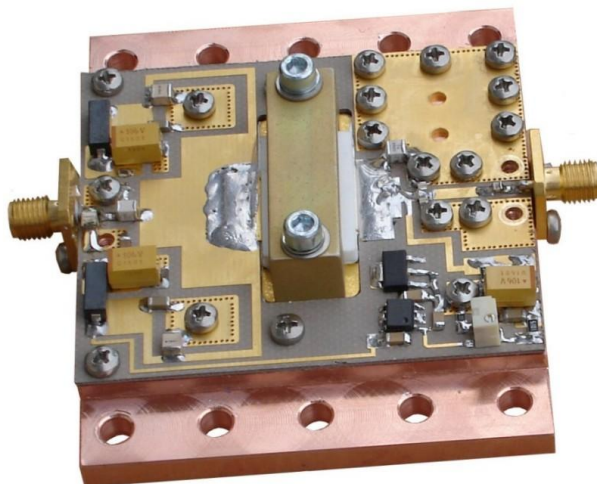


Developed and designed for Broadcast applications, this amplifier incorporates micro strip and MOSFET technology to guarantee 220, 400 and above output power if appropriately coupled.

Its high efficiency allows the usage of reduced size radiators (low dissipation)

- 1296 MHz
- 46 - 48 Volt
- Input / output 50  $\Omega$
- P<sub>Out</sub> : 220 W  $\pm$  1 dB
- Gain :  $\geq$  17 dB
- Class A, AB or C (adjustable)
- 8 mm thick Copper Base
- Teflon pc board



Dimension: ( L x W x H ) 80 x 65 x 30 mm

**RF DISPOITIVE : MRF6V13250HR3  
FREESCALE**

**ABSOLUTE MAXIMUM RATING ( T case = 45 °C )**

| Symbol           |   | Value       | Unit |
|------------------|---|-------------|------|
| V <sub>s</sub>   | Drain Voltage Supply  | 50          | V dc |
| I <sub>s</sub>   | Supply Current ( total )  | 12 A        | A dc |
| VSWR             | Load Mismatch ( all phase angles, T <sub>C</sub> = 40°C @ 220 W ) | 10 : 1      |      |
| T <sub>bp</sub>  | Base Plated Operating Temperature                                 | 60          | °C   |
| T <sub>stg</sub> | Storage Temperature Range   | - 20 ÷ + 70 | °C   |

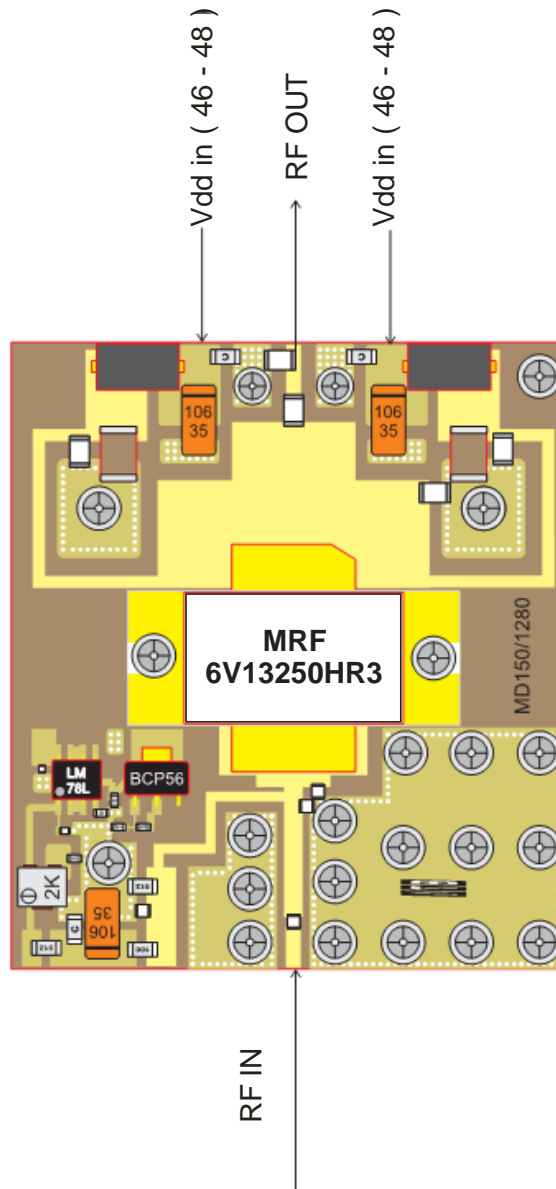
**ELECTRICAL SPECIFICATIONS ( T case = 40° C, 50  $\Omega$  loaded, Vs = 48 V, IA = 10 A  $\pm$ 1 )**

| Characteristics                            | Typ.                | Unit    |
|--|---------------------|---------|
| Operating Frequency Range                  | 1296                | MHz     |
| Power Input                                | 5 Watt $\pm$ 1 dB   | Watt    |
| Power Gain                                 | 17                  | dB      |
| Power Output ( fundamental )               | 230 watt $\pm$ 1 dB | Watt    |
| Drain Efficiency ( load 50 $\Omega$ )      | $\geq$ 45           | %       |
| Input VSWR                                 | $\geq$ 1.5 :1       |         |
| Insertion Phase Variation ( Unit to Unit ) | $\pm$ 10            | Degrees |
| Power Gain Variation ( Unit to Unit )      | $\pm$ 1             | dB      |
| F2 Second Harmonic                         | - 37                | dBc     |
| F3 Third Harmonic                          | - 20                | dBc     |

**Dynamic test Vs = 48 V IDQ = 100mA, Copper Base Temperature = 30°c**

| Frequency MHz | Vdc | P. In Watt | Power output Watt (total) | F2 Second Harmonic | F3 Third Harmonic | Gain dB   | Efficiency |
|---------------|-----|------------|---------------------------|--------------------|-------------------|-----------|------------|
| 1296          | +48 | 4.2        | 220 CW                    | - 40 dBc           | - 19 dBc          | $\geq$ 17 | $\geq$ 50% |

## CONNECTIONS



We recommend the use of the module with an appropriate heatsink and fan of good quality. Use high quality coaxial relays, taking care to close before the output relay and then the input, when you go to TX and open to input and then the output when you switch on RX.

Never exceed the input power, as stated on the label.

Do not use the module with values S.W.R. greater than 1:5.

+ 48 Vdc power the module on both wires.