



Model: AMP-900/20 is a 20-watt RF MOSFET Amplifier Module for 12.5-volt mobile radios that operate in the 896- to 941-MHz range. A special band pass filter for 902-928 MHz has been used with a great rejection of unwanted frequencies out of the band. The battery can be connected directly to the drain of the enhancement-mode MOSFET transistors. This module is designed for non-linear FM modulation, but may also be used for linear modulation by setting the drain quiescent current with the gate voltage and controlling the output power with the input power.

FEATURES

- Enhancement-Mode MOSFET Transistors (I_{DD0} @ $V_{DD}=12.5V$, $V_{GG}=0V$)
- $P_{out}>20W$, $\tau>25\%$ @ $V_{DD}=12.5V$, $V_{GG}=5V$, $P_{in}=50mW$
- Broadband Frequency Range: 896-941MHz
- Low-Power Control Current $I_{GG}=1mA$ (typ) at $V_{GG}=5V$
- Linear operation is possible by setting the quiescent drain current

Symbol	Parameter	Value	Unit
V_s	Voltage Supply	12.6	V dc
I_s	Current Supply	4.5	A dc
T_{stg}	Storage Temperature Range	-20 + 80	°C
T_c	Operating Base Plate Temperature ¹	0 + 75 ²	°C
ψ	VSWR max	3:1 all phase angle	-
	Input power	20-50 mW	-
	Max cw output power	25	Watt MAX

Amplifier has built-in a filter cutting frequencies bellow 902 and above 928 MHz, the loss over the band is over 30-50 dB. If you need a full band from 896-941 remove the filter located at the input.

TYPICAL PERFORMANCE ($T_{case}=+25^{\circ}C$, $Z_G=Z_L=50\Omega$, unless otherwise specified)



