



DESCRIPTION

The P750-FM-18 is an integrated amplifier building block which requires only power, input and output connections. This highly cost-effective amplifier has been designed for FM radio transmitter integrators and offers a great deal of flexibility. A low loss Wilkinson splitter and output combiner puts together two push-pull transistor pairs, guaranteeing good overall circuit performance at an attractive price. This amplifier is MOSFET based.

- No RF assembly or circuit tuning
- 750 watts minimum output power
- 18dB typical gain at 108MHz
- Amplifier disable

TECHNICAL SUMMARY

Frequency Range:	88 to 108 MHz
P1dB:	750 Watts CW
Class:	C
Supply Voltage:	50 V
Gain:	18 dB
Efficiency:	68 %
Temperature Range:	0 to +60 °C
Max VSWR:	5 : 1

ELECTRICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Units	Notes
Frequency	88		108	MHz	
P1dB		750		W, CW	
Psat			800	W, CW	
Power Input	12	14	18	W, CW	
Gain	16	18		dB	
Vsupply		50		V, DC	
Drain Current		22		A, DC	
Input VSWR		1.3:1	1.5:1		
Insertion Phase Variation		±5		°	Unit to unit
Gain Variation		±1		dB	Unit to unit
F2 Second Harmonic	-40	-50		dBc	
F3 Third Harmonic	-20	-24		dBc	
Operating Temperature	0		+60	°C	
Physical Dimensions					10.0" x 4.0" x 1.5"

All specifications valid for 50 Ω output load, $V_{sup} = +50VDC$, $I_{dq} = 0.2A$

ABSOLUTE MAXIMUM RATINGS

Parameter	Value	Units	Notes
Maximum Operating Voltage	55	V, DC	
Stable Operating Voltage	46 to 52	V, DC	
Maximum Bias Current, Per Transistor	2	A, DC	
Maximum Drain Current	28	A, DC	
Load Mismatch Survival	5:1		
Storage Temperature	-40 to +105	°C	
Max Operating Baseplate Temperature	+65	°C	

FEATURES

- Amplifier disable
- Current sense, each transistor
- Connectorized power