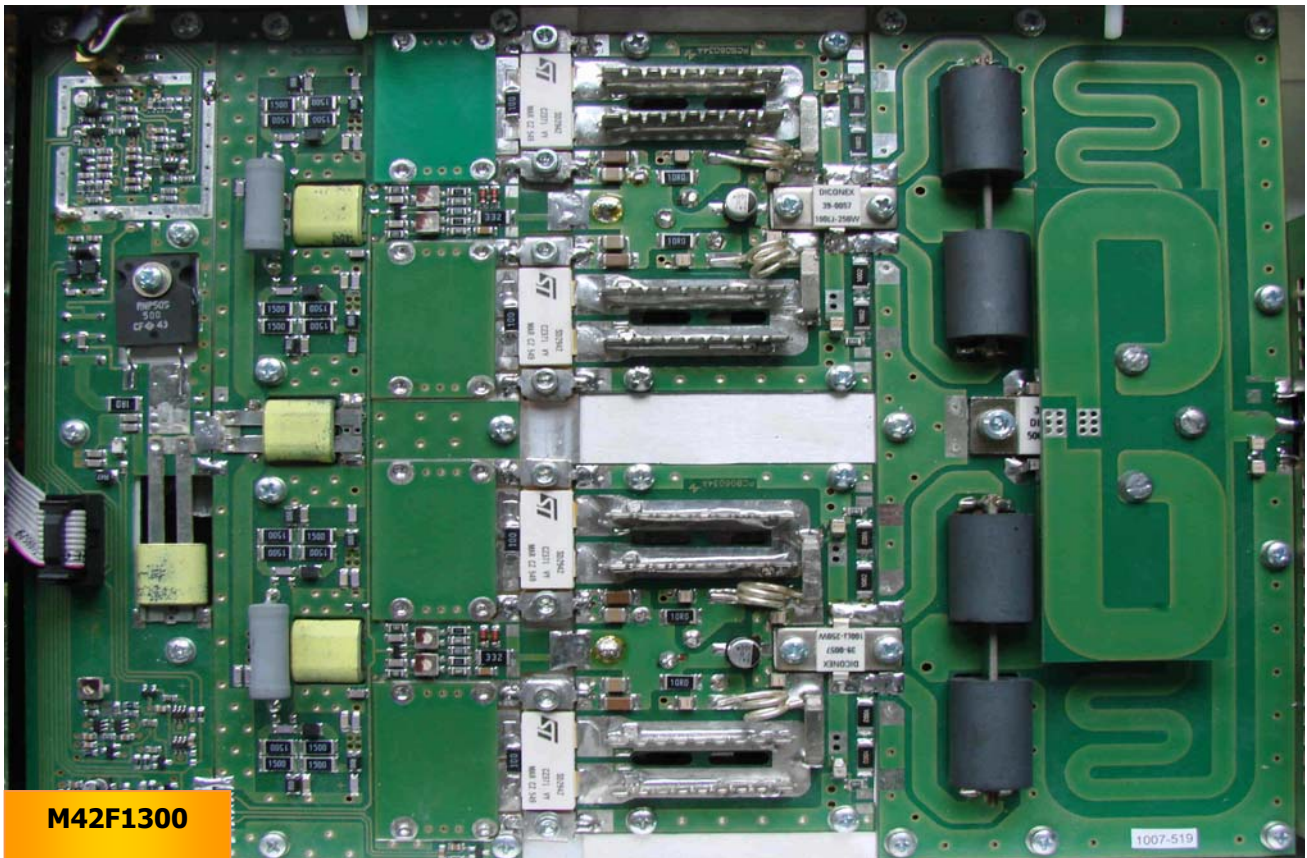


RF MODULE VHF-FM AMPLIFIER FM-1500 Max ALL BAND 87.5-108 MHz RF out 1,300 Watt



FEATURES & APPLICATIONS

Designed for FM radio transmitters and transposers our RF amplifier combines simple and compact design based on microstrip technology, PTFE PCB, planar balun and push-pull MOSFET to ensure high quality and reliability.

- MOSFET Technology
- Class AB operation
- FM Broadcast
- **Broadband, no tuning required from 87.5 to 108 MHz, very flat response**
- **Output Power > 1,300W**
- Input & Output Impedance = 50Ω - 50Ω
- 48 Volt Nominal, Highest Efficiency typ. 80%
- Gain : 20 dB
- Available on aluminium carrier version or heat-sink version
- Connectorized version also available
- **More than 1k pieces delivered**

DISTRIBUTOR BY:

“Technology meets Creativity”

ALFA MULTIMEDIA LIMITED PARTNERSHIP TEL: 02 583 0351-2 Mobile: 081 791 8488 email: alfathai@hotmail.com

ABSOLUTE MAXIMUM RATINGS (Carrier Temperature < 70 °C)

Symbol	Parameter	Value	Unit
Vs	Voltage Supply	48	V dc
Is	Current Supply	45	A dc
TStg	Storage Temperature Range	-20...+70	°C
Tc	Operating Base Plate Temperature	-0...+70	°C
ψ	VSWR max	2:1 all phase angle	-
Pin	Max input power CW	30W	Watt
Pout	Max output power CW	1,500W	Watt

ELECTRICAL SPECIFICATIONS (Base Plate Temp. = 25 °C, Vdd = 48 V, 50 Ω)

Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typ.	Max	
BW	Bandwidth	Pout = 1,300 W (CW)	87.5		108	MHz
Gp	Power gain	Pref = 1,300 W (CW)	19.5	20	20,5	dB
Pin	Power Input	Pref = 1,300 W (CW)	13	14	15	W
Pout	Pout	BW: 87.5 ÷ 108 MHz	1,300		1,400	W
ID_q	Quiescent Current	Pout = 0 W – Total	-	-	0,8	A
I_{tot}	@ P _{Max}	1,300W CW	35	-	41	A
IRL	Input return loss	Pout = 1,000 W CW	-20	-25	-	dB
FL	Gain Flatness	Pref = 1,300 W CW, BW: 87.5 ÷ 108 MHz		±0.5	-	dB
η	Drain Efficiency	Pout @ 1,300 W CW	75	80	-	%
F2	Second Harmonic	Pout @ 1,300 W CW	-45	-50		dBc
F3	Third Harmonic	Pout @ 1,300 W CW	-50	-55		dBc

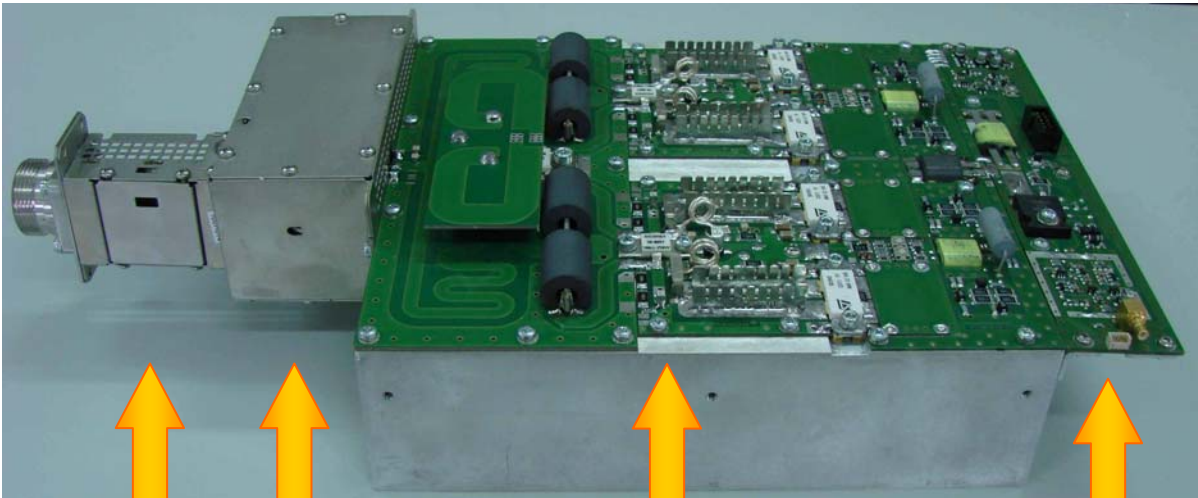
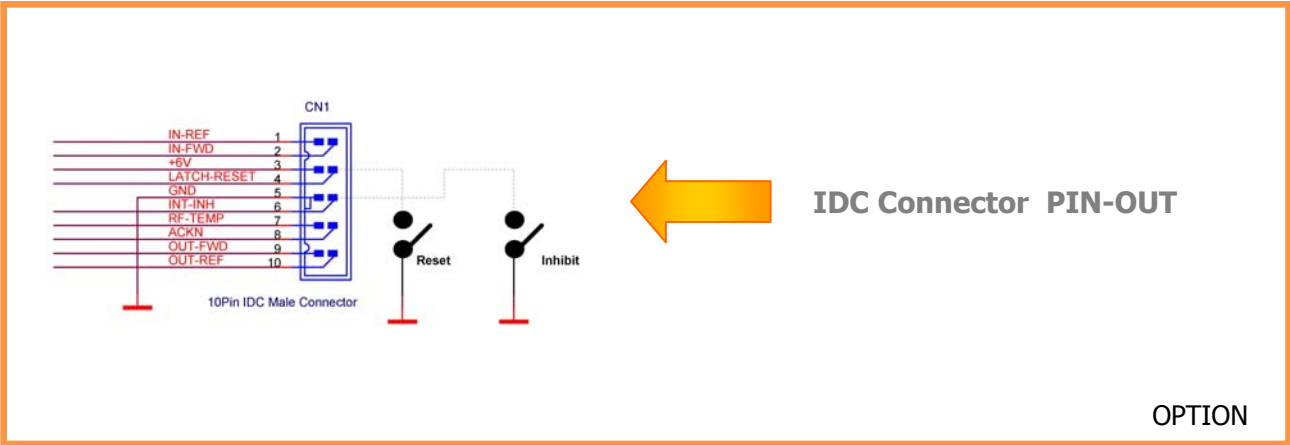
OPTIONS

- * 30W input dummy load with automatic change-over in case of alarm
- * Input directional coupler
- * Output directional coupler
- * Output filter
- * Input forward power measurement 2.5V@30W
- * Input reflected power measurement 2.5V@7,5W
- * Output forward power measurement 3V@1,300W
- * Output reflected power measurement 3V@200W
- * Latching protection
- * Latch reset pin for manual restart (momentary to GND)
- * Over reflected power ultrafast alarm (700nS)
- * Input pin for RF power inhibit
- * Acknowledge pin alarm +5V

DISTRIBUTOR BY:

“Technology meets Creativity”

ALFA MULTIMEDIA LIMITED PARTNERSHIP TEL: 02 583 0351-2 Mobile: 081 791 8488 email: alfathai@hotmail.com



DIRECTIONAL
COUPLER OPTION

OUTPUT FILTER
OPTION

AMPLIFIER 1.3KW
OPTION

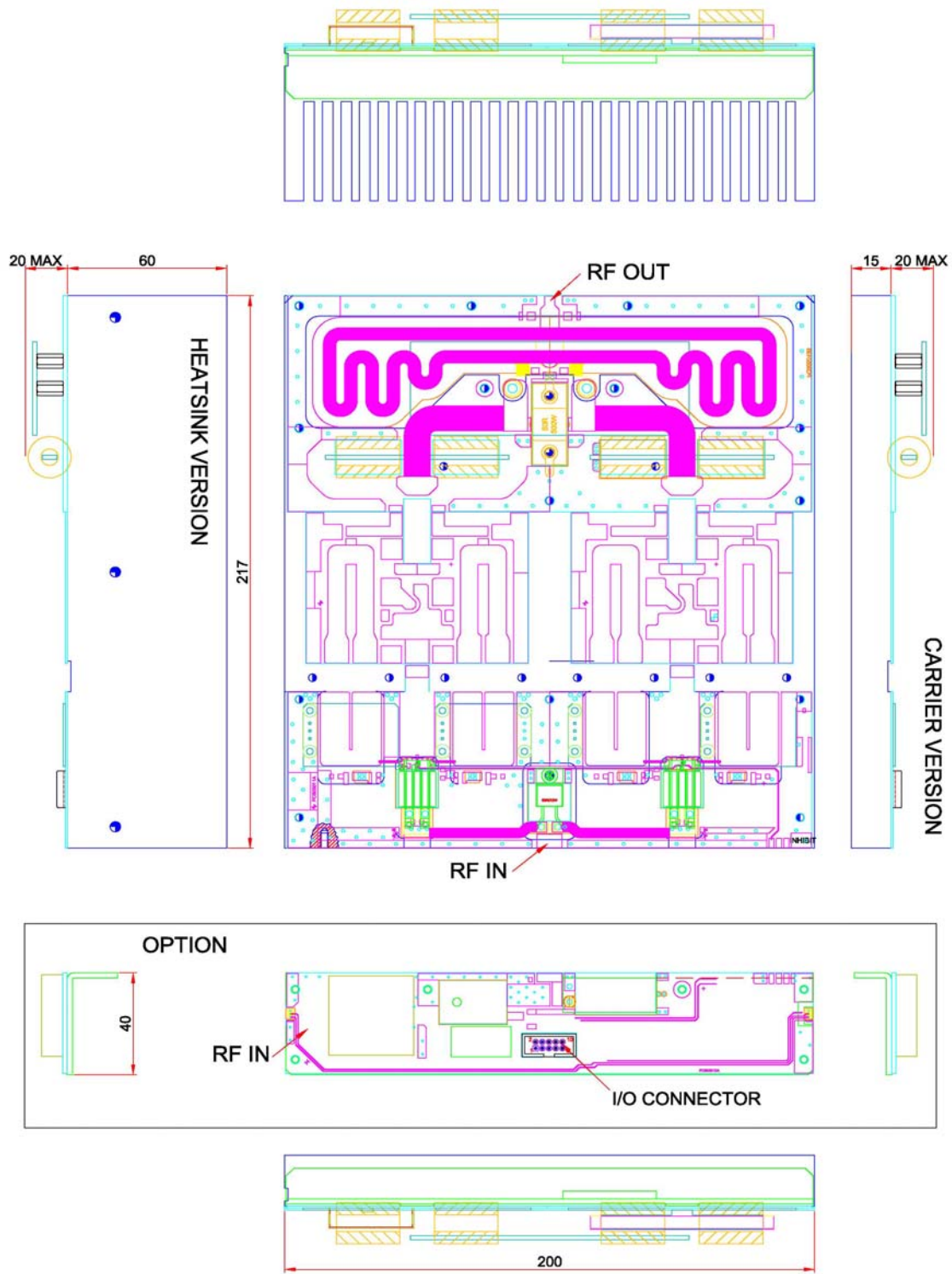
INPUT PROTECTION
OPTION

DISTRIBUTOR BY:

“Technology meets Creativity”

ALFA MULTIMEDIA LIMITED PARTNERSHIP TEL: 02 583 0351-2 Mobile: 081 791 8488 email: alfathai@hotmail.com

Layout and Connections



DISTRIBUTOR BY:

“Technology meets Creativity”

ALFA MULTIMEDIA LIMITED PARTNERSHIP TEL: 02 583 0351-2 Mobile: 081 791 8488 email: alfathai@hotmail.com