RADITEK INC.

MADE IN USA

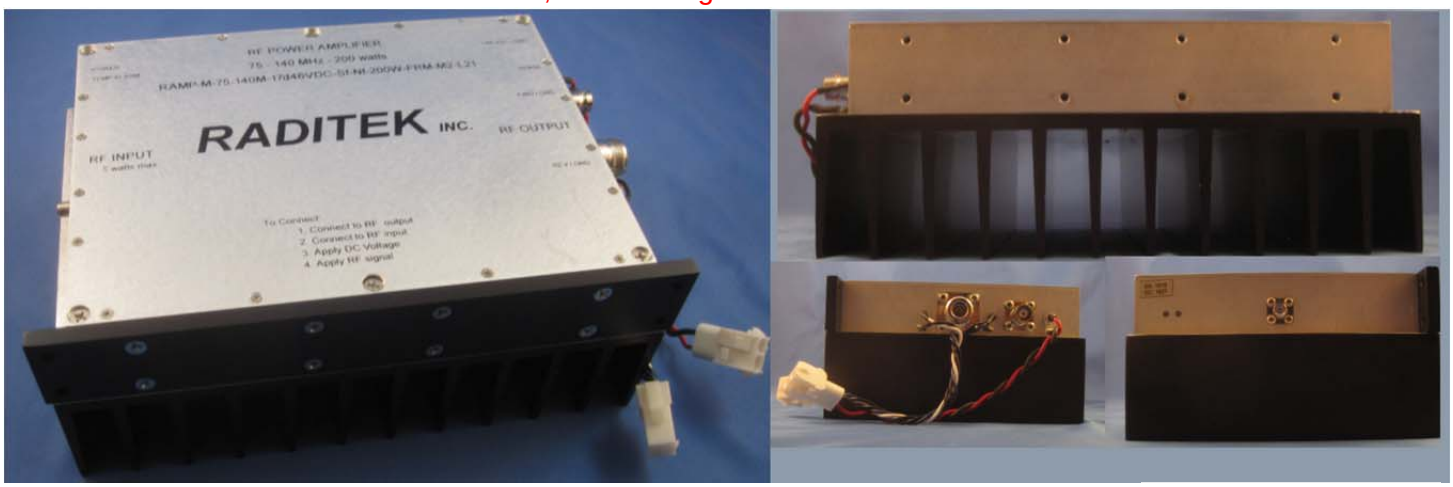
RoHS COMPLIANT

code-L21

Power Amplifier 75-140MHz

17 dB Gain, 46Volt DC, SMA female to N female Connectors, 200Watts, Forward & Reverse Monitoring, Module

This is a Controlled document, All Changes must be coordinated with the Customer



5 Year Warranty

Heatsink and mounting plate included

Note: Symmetrical mounting holes on top and bottom of long side so amplifier can be mounted with N-output connector is to the left or right side.

Order Examples: **RAMP-M-75-140M-17d46VDC-Sf-Nf-200W-FRM-m2-r3-L21**

Description: *(Power Amplifier Module, 75-140MHz, 17dB Gain, 46Volts DC, SMA female to N female Connector, 200 Watts, Forward & Reverse Monitoring) Rev 3*

Parameter	Specification
Frequency Range	75-**140**MHz
Power out @ Psat **75-120MHz**	200W (100 watts @140 MHz)
Power out @ 2.8 watts input @ 100 MHz	162.5 w +/- 2.5 w
Gain @ 100 MHz @162.5W RF output	17 dB min
Gain Flatness @ 200W Output	± 2.0 dB
Voltage	+46 to 50 VDC
Current at 46 Volts @ 200Watts	13 amps max.
Connectors	SMA Input / N-type Output
Dimensions	L 7.5" x W 5.65" x H 1.25" max Housing L 8.38" x W 5.9" x H 3.25" Housing w/ Heat Sink
Operating Temperature Range	-20 to +75°C
2nd Harmonic	-**30** dBc max (Peak value of -20 allowed at 75-82MHz)
3rd Harmonic	-**30** dBc max
DC input /Monitors	Feed thru filters with cable assemblies
Input VSWR **(Return Loss)**	<2:1 **(>9.54dB)**
Output VSWR (Return Loss) (@ 5 amp bias / quiescent current @ 100 MHz)	**<1.43:1 (>15dB)**
RF Coupled Port @ 100 MHz	-37 dBc +/- 2 dB

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.
Tel: (408) 266-7404 FAX: (408) 266-4483
WEB: www.raditek.com E-mail: sales@raditek.com

Power Amplifier 75-140MHz

17 dB Gain, 46Volt DC, SMA female to N female Connectors, 200Watts, Forward & Reverse Monitoring, Module

This is a Controlled document, All Changes must be coordinated with the Customer

Parameter	Specification
Forward Monitor @ 160 watts @ 100 MHz - 1.5K load	1.5 volts +/- .2 v
Reverse Monitor into open @ 10w @ 100MHz - 1.5K load	Equal to Forward monitor +/- 0.1 v
Class mode	Class AB

J3 is our RF forward power sample via BNC connector. -37dBc

J4 has the forward and reverse voltages and Is TE Connectivity / Amp PN 172160-1 w male pins PN 170366-1
Pin 1 = (white) FWRD POWER
Pin 2 = (black) GND
Pin 3 = (white) REFLECTED POWER
Pin 4 = (black) GND

J5 has the amp power and is TE Connectivity/Amp PN 350778-1 with male pins PN 350550-1
Pin 1 = (red) +46VDC
Pin 2 =(black) return

Revision History

Rev	Date	Event	Details	Initiated by	Approved By	Approved By
1 no rev marking	2/26/16	Release	Production Release	Tim Avicola	Willow Toso	Peter Corbett
2 marked R on S# label and m2	9/8/16	Change	Power Output setting change from 2.7W i/p, 160W o/p @100MHz to 2.8W i/p, 162.5W +/- 2.5W @100MHz set >3 Minutes after switch on.	Devin Ellis	Tim Avicola	Peter Corbett
3 R3 marked on S# Label	5/26/17	Change S# 1116>	WAS RAMP-M-75-120M-17d46VDC-Sf-Nf-200W-FRM-m2-L21 IS RAMP-M-75-120M-17d46VDC-Sf-Nf-200W-FRM-m2-r3-L21	Tim Avicola	Paul Turner	Peter Corbett
3 R3	1/25/18		Correct typo on size dimensions	Peter Corbett	Peter Corbett	Peter Corbett

Rev 3 change Detail	was	is
Power out @ Psat (75-120MHz)	200W	200W (100 watts @140 MHz)
Voltage	+46VDC	+46-50 VDC
2nd Harmonic	-**20** dBc max	-**30** dBc max (Peak value of -20 allowed at 75-82 MHz)
3rd Harmonic	-**25** dBc max	-**30** dBc max
Input VSWR **(Return Loss)**	<2:1	<2:1 (**>9.54dB**)
Output VSWR (Return Loss) **(@ 5 amp bias / quiescent current @ 100 MHz)**		**<1.43:1** (**>15dB**)

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.
Tel: (408) 266-7404 FAX: (408) 266-4483
WEB: www.raditek.com E-mail: sales@raditek.com