GaN Power Amp Pallet RFM245-10

Product Features

- 2450MHz CW 100W Generator
- CW 100W Signal Generator
  For Medical machine
- Digital Attenuator included
  (0.5dB step / Range 31.5dB)

Applications

- Medical Machine



Description

This RF CW Tone Generator was ideally designed for Medical Equipment at its operating frequency of 2450MHz and the maximum output power of 50dBm. Originally built for treatment machines for early stage tumor patients that shows superb effectiveness. With a high reliability and excellent performance at a low cost, they can be implemented dependably on medical applications.

Electrical Specifications

PARAMETER		UNIT	MIN	TYP	MAX	CONDITION
Output Frequency		MHz	-	2450	-	CW (±100KHz)
Output Power Range		dBm	-	30	-	+20 ~ +50
VSWR		-	-	-	1.2	50ohm matching
Forward Detector output		V	-	3.7	-	@ Forward +50dBm
Reflected Detector output (Open & Short)		V	-	3.7	-	@ Forward +50dBm
Power Efficiency		%	-	37	-	-
Attenuator accuracy		dB	-	0.3	0.8	HMC472LP4, 0.5dB step
FAN*		dB/A	-	-	140	FAN 4EA (FAN 1EA Noise Level 33.8dB/A)
Temperature Alarm*		℃	-	75	-	Over Temp. Alarm: High
Gain Variation With Temp.		dB	-0.5	-	+0.5	+10 ~ 35℃ (Only in-building)
Consumption Current	+40V	A	-	6.5	7.5	-
	+12V	A	-	0.55	0.8	-

Note

*The amplifier can be provided without Heat Sink and DC Fan upon customer's request. The part number for this case is RFMA245-10.

*If the temperature above 75℃, this generator automatically shut down to protect itself. After temperature under 70℃, the generator wakes up and back to normal.

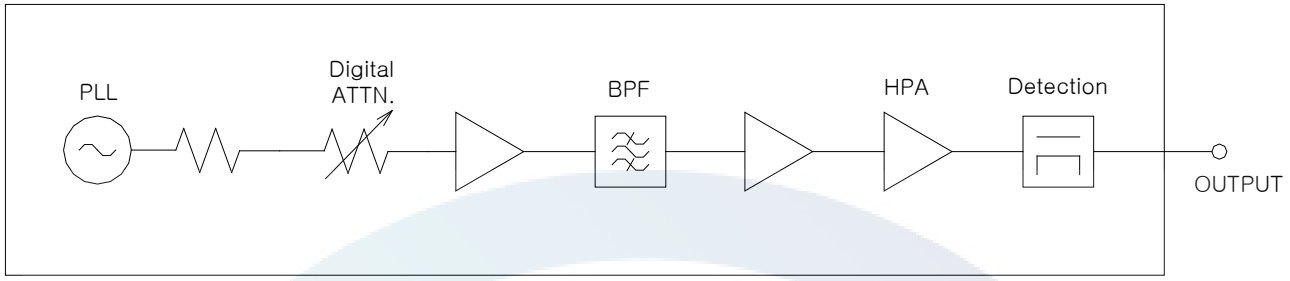
Mechanical Specifications

PARAMETER	UNIT	TYP	REMARK
Dimension	㎜	150 × 290 × 92	-
Power Connector Type & Pin Configurations	-	3W3PPH30120000 (+40V DC) A1 : +40Vdc A2 : GND A3 : NC D-SUB (3W3 Male) A1 A2 A3 	-
I/O Signal Connector Type	-	D-Sub Connector 15pin (+12V DC (DC FAN) & Pout control)	-
Cooling	-	DC FAN (+12V) × 4EA	-

I/O Signal Connector Pin Descriptions

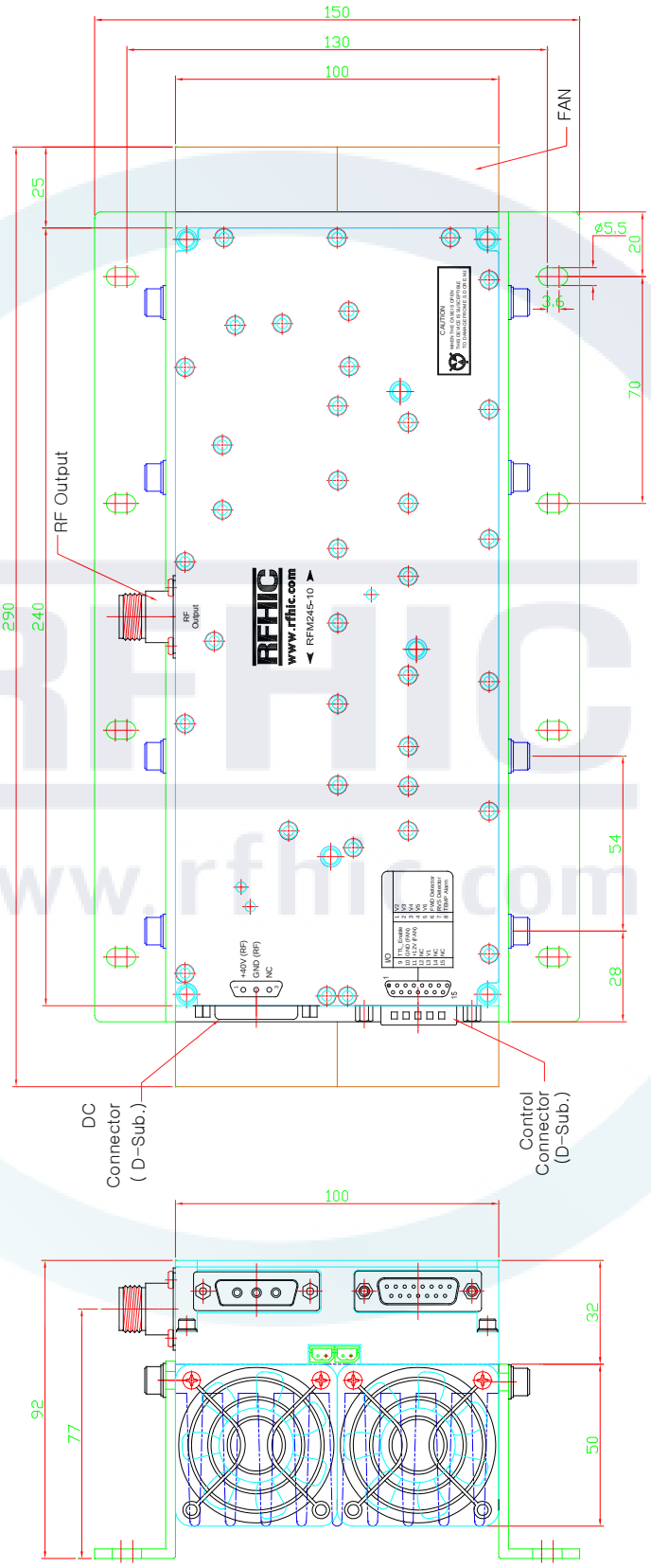
Pin No.	Descriptions	I/O	Note
1	8dB attenuation.	I	High: disable, Low: attenuation
2	4dB attenuation.	I	High: disable, Low: attenuation
3	2dB attenuation.	I	High: disable, Low: attenuation
4	1dB attenuation.	I	High: disable, Low: attenuation
5	0.5dB attenuation.	I	High: disable, Low: attenuation
6	RF Output Power Detection	O	Analog Voltage
7	RF Output Reflected Power Detection	O	Analog Voltage
8	High Temperature Alarm (Alarm @ above 75℃)	O	High: alarm, Low: Normal
9	RF signal on/off (amp. On/off)	I	High: disable, Low: enable
10	Ground (Separated GND(RF))	I	-
11	DC 12V pin (FAN)	I	+12V ± 0.8V
12	Not Connected	-	-
13	16dB attenuation.	I	High: disable, Low: attenuation
14	Not Connected	-	-
15	Not Connected	-	-

Block Diagram & Outside Picture



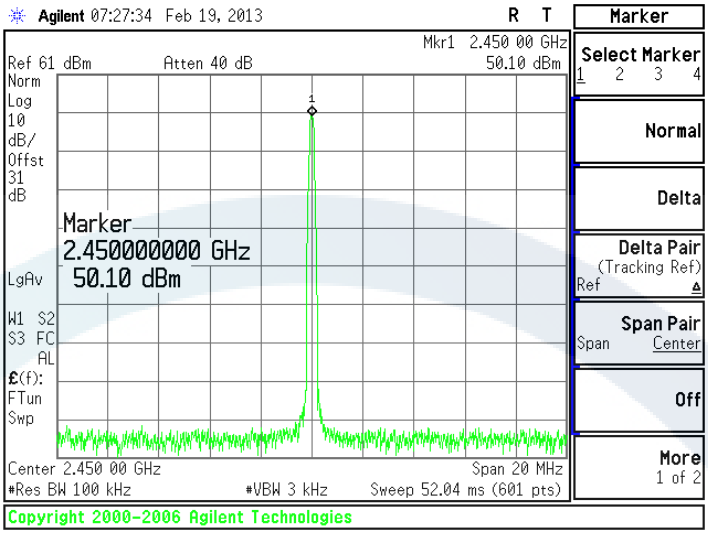


Outline Drawing

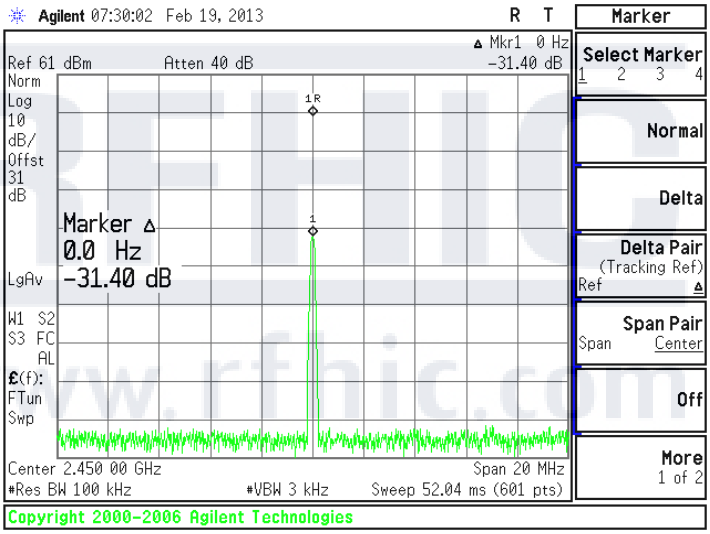


Measure Date

100W Output (Max.)



31.5dB Attenuation Output (Min.)



Revision History

Part Number	Release Date	Version	Modification	Data Sheet Status
RFM245-10	2013.02.25.	1.2	Fixed, over temperature shut down	-
RFM245-10	2013.02.19.	1.1	New datasheet format	-
RFM245-10	2011.05.20.	1.0	Initial release of the datasheet	-

RFHIC Corporation reserves the right to make changes to any products herein or to discontinue any product at any time without notice. While product specifications have been thoroughly examined for reliability, RFHIC Corporation strongly recommends buyers to verify that the information they are using is accurate before ordering. RFHIC Corporation does not assume any liability for the suitability of its products for any particular purpose, and disclaims any and all liability, including without limitation consequential or incidental damages.
RFHIC products are not intended for use in life support equipment or application where malfunction of the product can be expected to result in personal injury or death. Buyer uses or sells such products for any such unintended or unauthorized application, buyer shall indemnify, protect and hold RFHIC Corporation and its directors, officers, stockholders, employees, representatives and distributors harmless against any and all claims arising out of such unauthorized use.

Sales, inquiries and support should be directed to the local authorized geographic distributor for RFHIC Corporation. For customers in the US, please contact the US Sales Team at 919-677-8780. For all other inquiries, please contact the International Sales Team at 82-31-8069-3036.