

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 (± 100 KHz)	
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*	$^{\circ}$ C	-	75	-	Over Temp. Alarm: High	
Gain Variation With Temp.	dB	-0.5	-	+0.5	+10 ~ 35 $^{\circ}$ C (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 $^{\circ}$ C, this generator automatically shut down to protect itself. After temperature under 70 $^{\circ}$ C, the generator wakes up and back to normal.

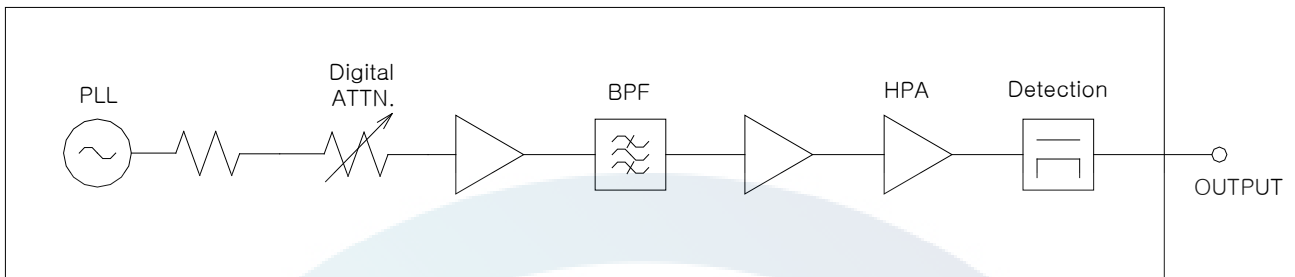
Mechanical Specifications

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

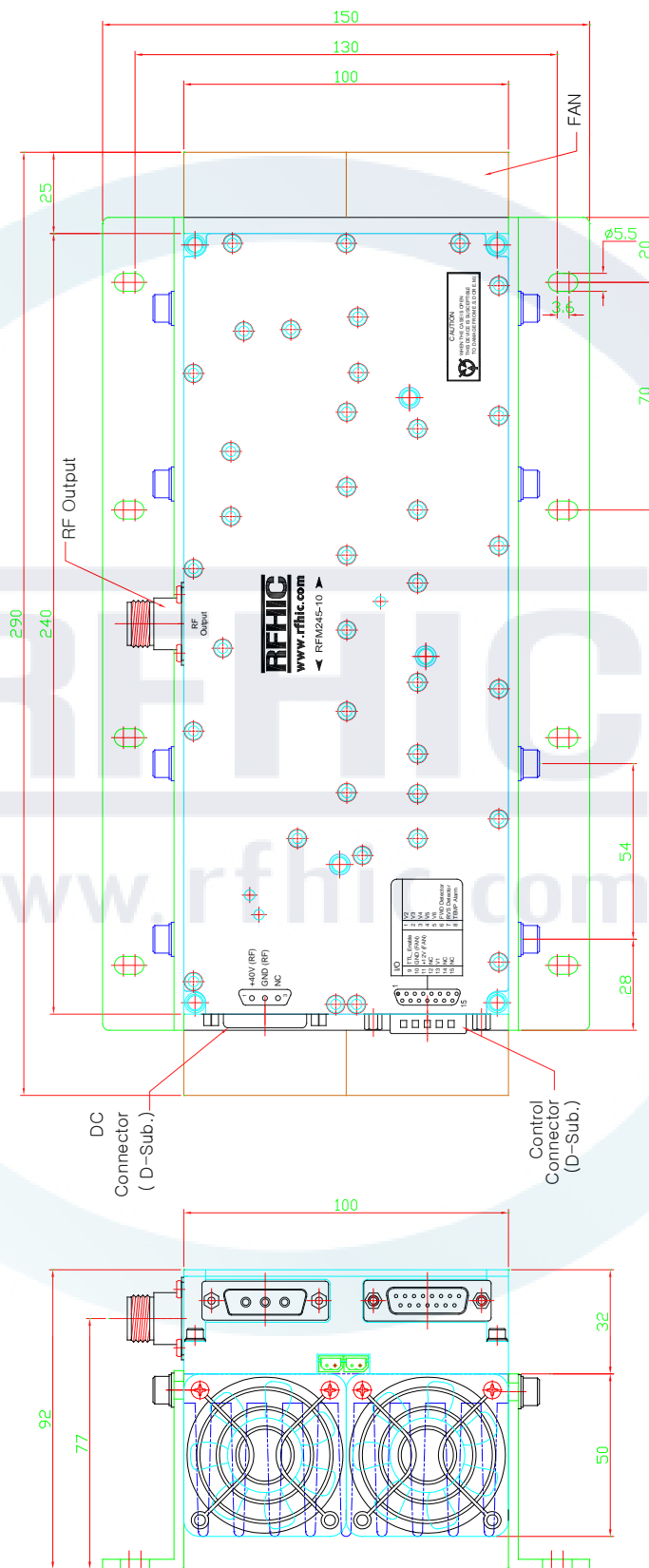
I/O Signal Connector Pin Descriptions

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°C)	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

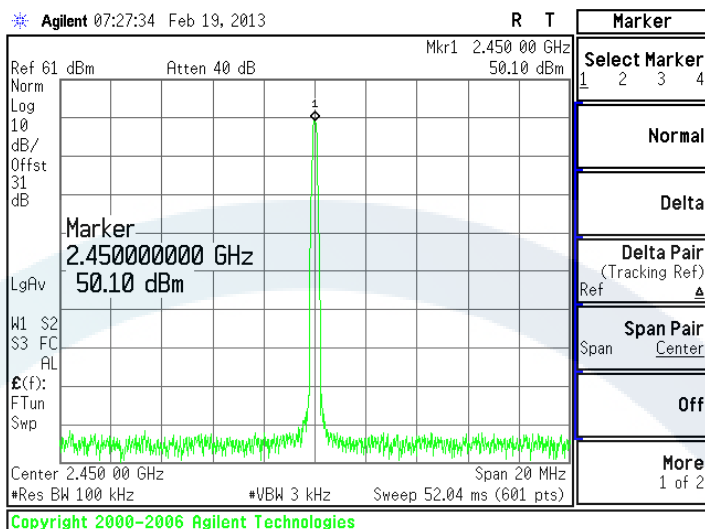


Outline Drawing

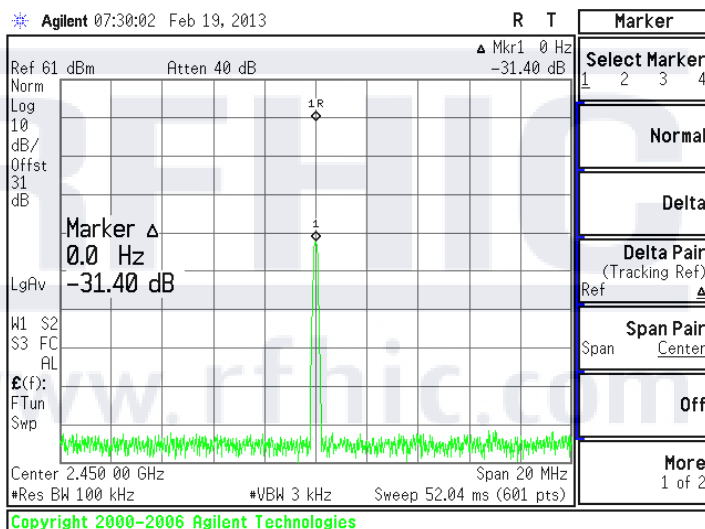


Measure Date

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	-

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