ILD60Ax / ILD130Ax

DC – 6 GHz / DC – 13.0 GHz 20 W LOAD

REV B
February 2016

Key Features

- Wide Band, DC ~ 13.0 GHz
- 1.20:1 VSWR
- 20 W CW Power Handling
- Precision Machined Housing
- Single DC Power Supply
- Meet MIL-STD-202g

Applications

- Up to 13.0 GHz Band
- Satellite Communications
- Broadcast
- RF Bench Tests
- Mobile Base Station Applications

Absolute Maximum Ratings

Parameters	Units	Ratings
DC Voltage	V	32
Input Power, CW	dBm	43
Storage Temperature	°C	-40 ~ +85
Operating Temperature	°C	-40 ~ +85

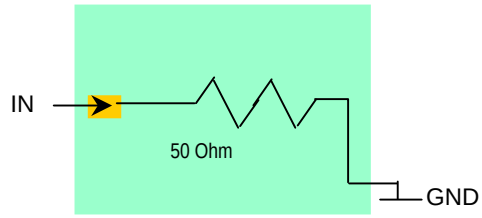
Note: Heat sink is required for high power applications!

Specifications

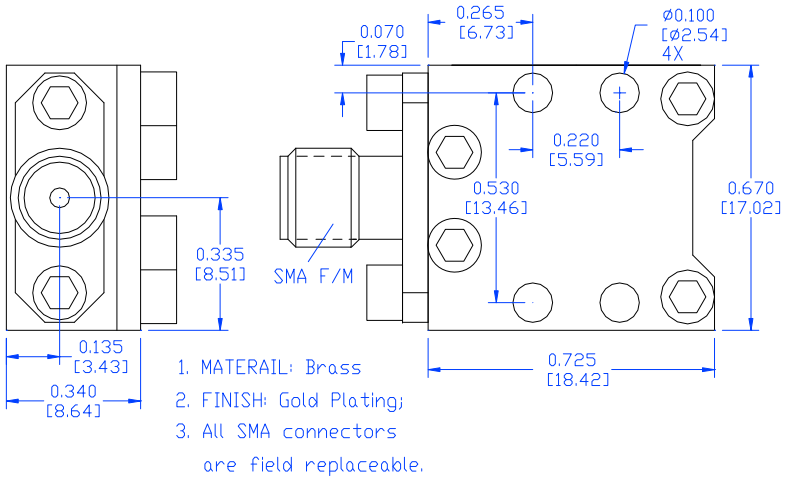
Summary of the key electrical specifications at 25°C

Index	Testing Item	Symbol	Test Constraints	Min	Typ	Max	Unit
1	Frequency Range	BW	50 Ohm Impedance	DC		13.0	GHz
2	VSWR	SWR_i	DC – 13.0 GHz		1.20:1	1.5:1	Ratio
3	Maximum Power Handling	P_{MAX}	DC – 13.0 GHz, CW			43	dBm
4	Maximum DC Voltage	V_{DCMAX}				32	V
5	Thermal Resistance	$R_{th,c}$	Channel to case		6.0	7.0	°C/W
6	Operating Temperature	T_o		-40		+85	°C

Functional Block Diagram



Outline, IP-4D Housing



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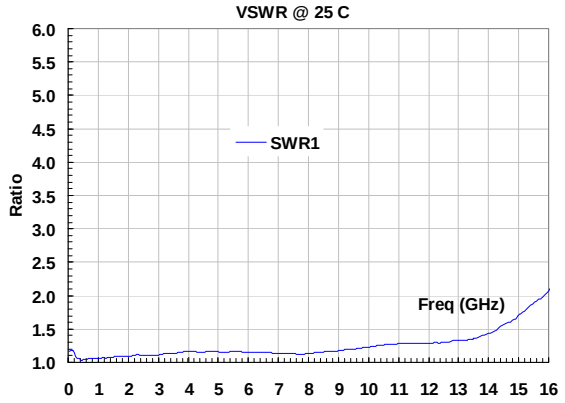
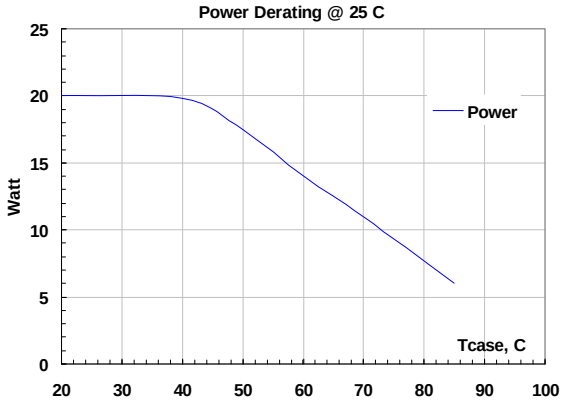
Ordering Information

Model Number	Frequency	Connector
ILD60A1	DC to 6.0 GHz	SMA Female
ILD60A2	DC to 6.0 GHz	SMA Male
ILD130A1	DC to 13.0 GHz	SMA Female
ILD130A2	DC to 13.0 GHz	SMA Male

Typical Data





Application Notes:

A. SMA Torque Wrench Selection

Always use a torque wrench with 5 ~ 6 inch-lb coupling torque setting for mating the SMA cables to the amplifier. Never use torque more than 8 inch-lb wrench for tightening the mating cable to the connector. Otherwise, the permanent damage will occur to the SMA connectors of the amplifier. 8710-1582 (5 inch-lb) is one of the ideal torque wrench choice from Agilent Technology.

B. Mounting the Amplifier

Use three pieces of #2-56 with longer than 9/16" screws for mounting the amplifier on a metal-based chase. Flat and spring washers are needed to prevent the screw loosening during the shock and vibration. Always use the appropriate torque setting of the power screwdriver to mount them.

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