



IATxx-06 Series

DC – 6 GHz, 20 W UP TO 30dB PRECISION ATTENUATOR

REV B
April 2015

Key Features



- DC - 6.0 GHz, 50 Ohm Impedance
- Up to 30 dB Attenuation.
- 1.2 :1 VSWR
- 20 W CW RF Power Handling
- Precision Machined Housing
- Single DC Power Supply
- Meet MIL-STD-202g

Applications

- Wideband Power Attenuation
- High power Measurement
- High power IP₃ Measurement
- RF Bench Tests



Absolute Maximum Ratings

Parameters	Units	Ratings
DC Voltage	V _{dd}	32
Input Power, CW	W	20
Storage Temperature	°C	-40 ~ +85
Operating Temperature	°C	-40 ~ +85

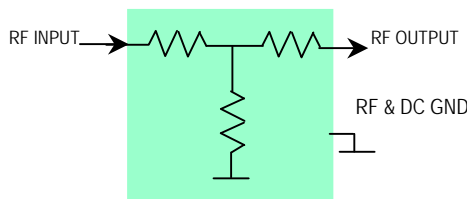
Note: Additional heat sink is required for continuous operation!

Specifications

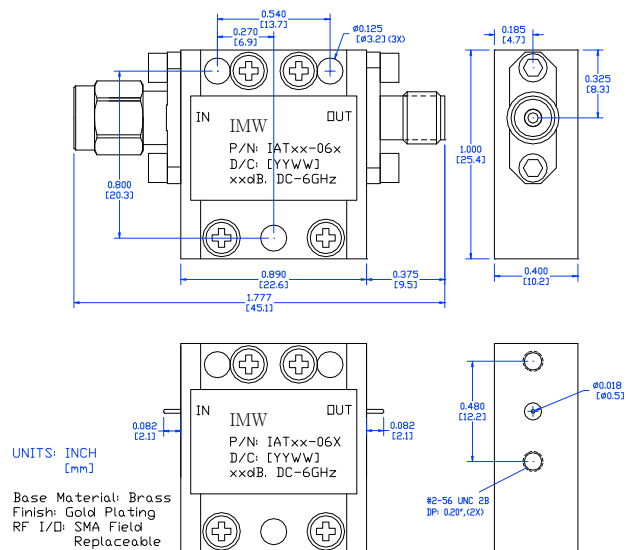
Summary of the key electrical specifications at 25°C

Index	Testing Item	Symbol	Test Constraints	Min	Typ	Max	Unit	
1	Frequency Range	BW	50 Ohm Impedance	DC		6.0	GHz	
2	Attenuation	S ₂₁	DC – 6.0 GHz	IAT30-06x	28.7	30	30.7	dB
				IAT20-06x	19.0	20	21.0	
				IAT10-06x	9.7	10.5	11.3	
				IAT06-06x	5.7	6.5	7.3	
				IAT03-06x	2.7	3.5	4.3	
3	VSWR	SWR _i	DC – 6.0 GHz		1.2:1	1.5:1	Ratio	
4	Attenuation Variation	ΔS ₂₁	DC – 6.0 GHz			+/-1.0	dB	
5	Power Handling	P _{in}	DC – 6.0 GHz			20	W	
6	Operating Voltage	V _{dd}				32	V	
7	Operating Temperature	T _o		-40		+85	°C	
8	Thermal Resistance	R _{th,c}	Junction to case			8	°C/W	

Functional Block Diagram



Outline, IP-11 Housing



Specifications and information are subject to change without notice.



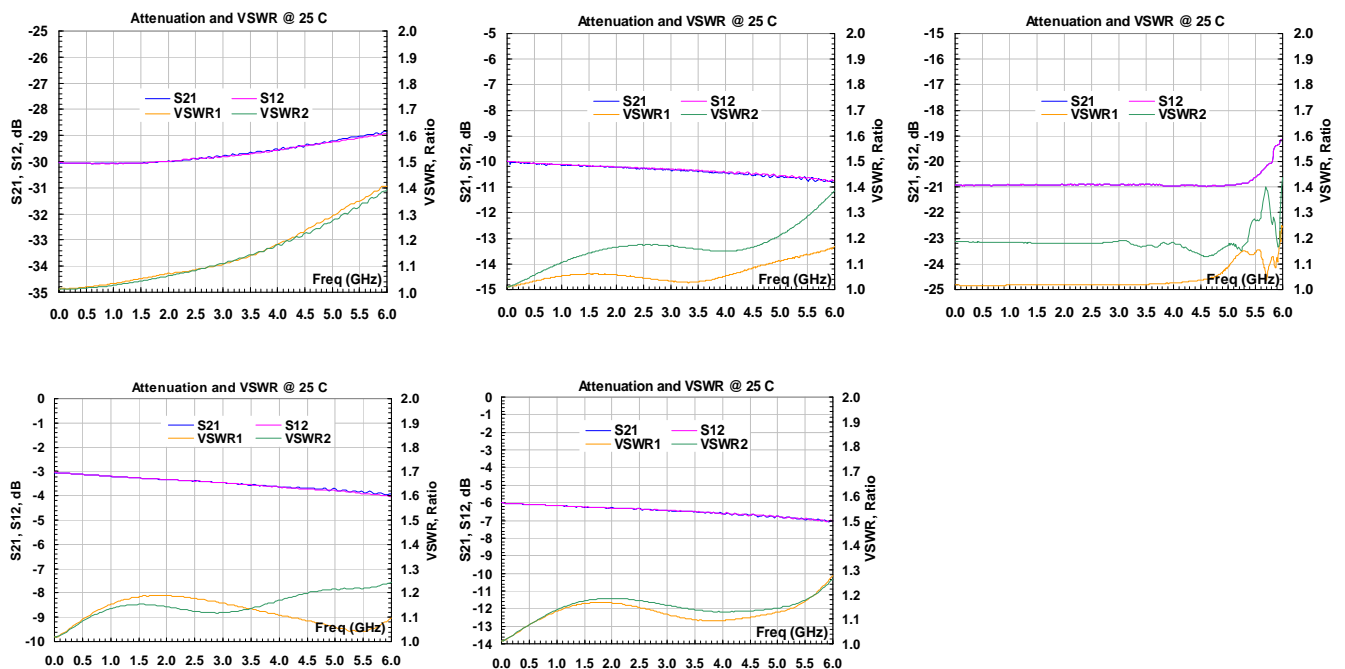
Ordering Information

Model Number	Attenuation dB
IAT04-06x	3
IAT06-06x	6
IAT10-06x	10
IAT15-06x	15
IAT20-06x	20
IAT30-06x	30

SMA Connectors

Model Number	Connectors	
	IN	OUT
IATxx-06A	Male	Female
IATxx-06B	Female	Female
IATxx-06C	Male	Male
IATxx-06D	Female	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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