Frequency Mixer
800 – 4200 MHz

AM084209XD-P3
December 2020
Rev 0

DESCRIPTION

AMCOM's AM084209XD-P3 is a high IP3 passive double balanced mixer operates with LO drive level range of +10dBm to +16dBm.

FEATURES

- LO/RF: 800-4200MHz
- IF: DC-800MHz
- LO Level: +13dBm
- Conversion Loss: 9dB
- RF Input: Up to +9dBm
- IP3: +19dBm
- SMA Connector

APPLICATIONS

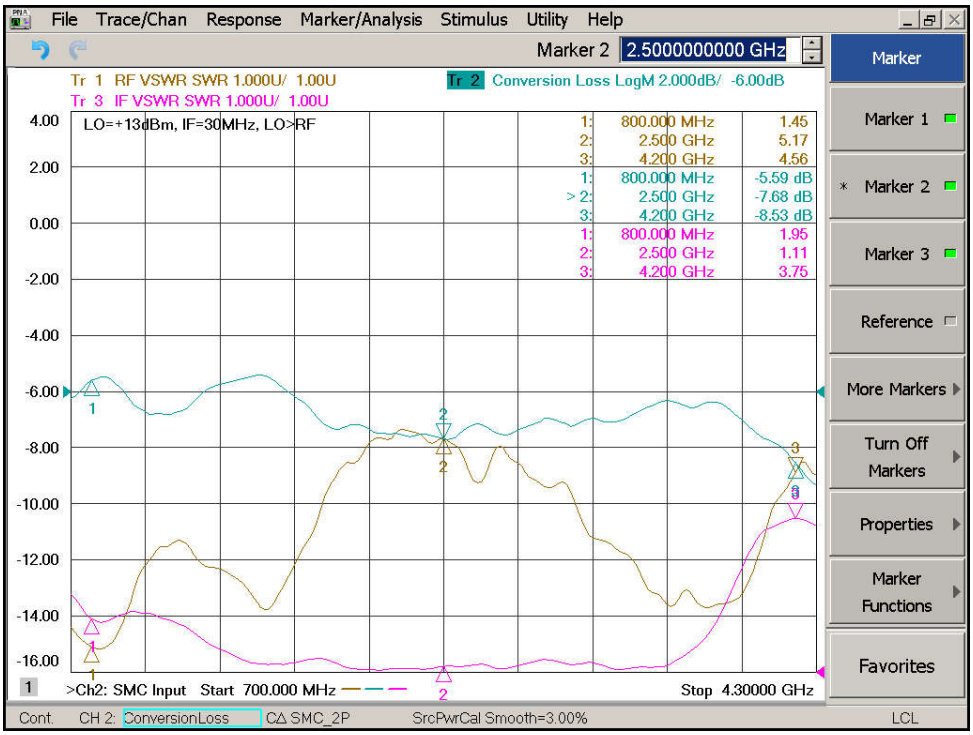
- Telecom Infrastructure
- Military & Aerospace
- VSAT
- Test & Instrumentation
- Radar
- Communication

Electrical Specifications @ +25°C, IF=30MHz, LO=+13dBm, 50 Ω

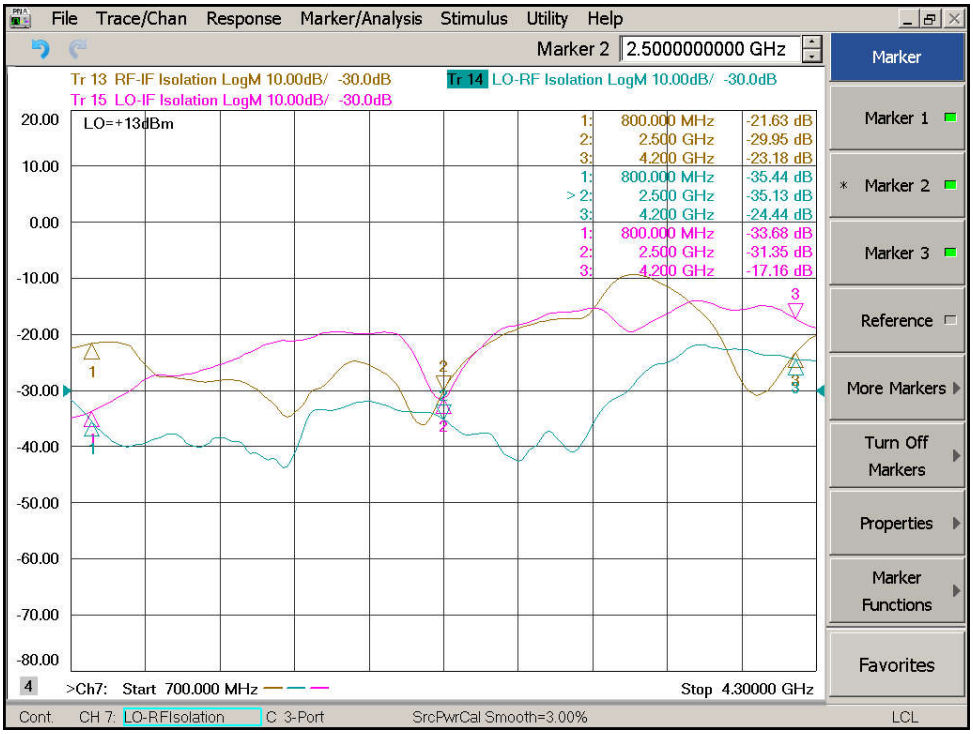
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range				
LO/RF	MHz	800		4200
IF	MHz	DC		800
Conversion Loss	dB		9.0	10.8
LO-RF Isolation				
800-2100MHz	dB	25	35	
2100-4200MHz	dB	17	28	
LO-IF Isolation				
800-2100MHz	dB	10	18	
2100-4200MHz	dB	7	15	
RF VSWR			5.0:1	6.5:1
IF VSWR			4.0:1	5.5:1
RF Input Power up to	dBm	+7	+9	
Input IP3 (Center Band)	dBm	+17	+19	

Email: info@amcomusa.com
Website: www.amcomusa.com
Tel. (301) 353-8400 Fax. (301) 353-8401
401 Professional Drive, Gaithersburg, MD20879

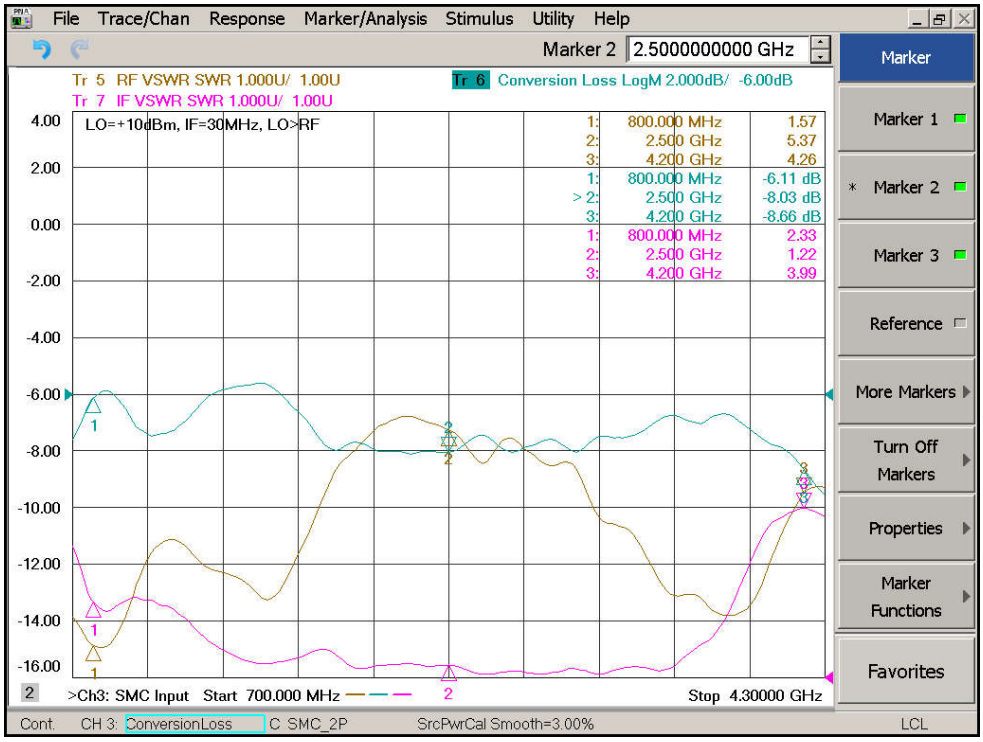
Conversion Loss, RF/IF VSWR, LO=+13dBm, IF=30MHz



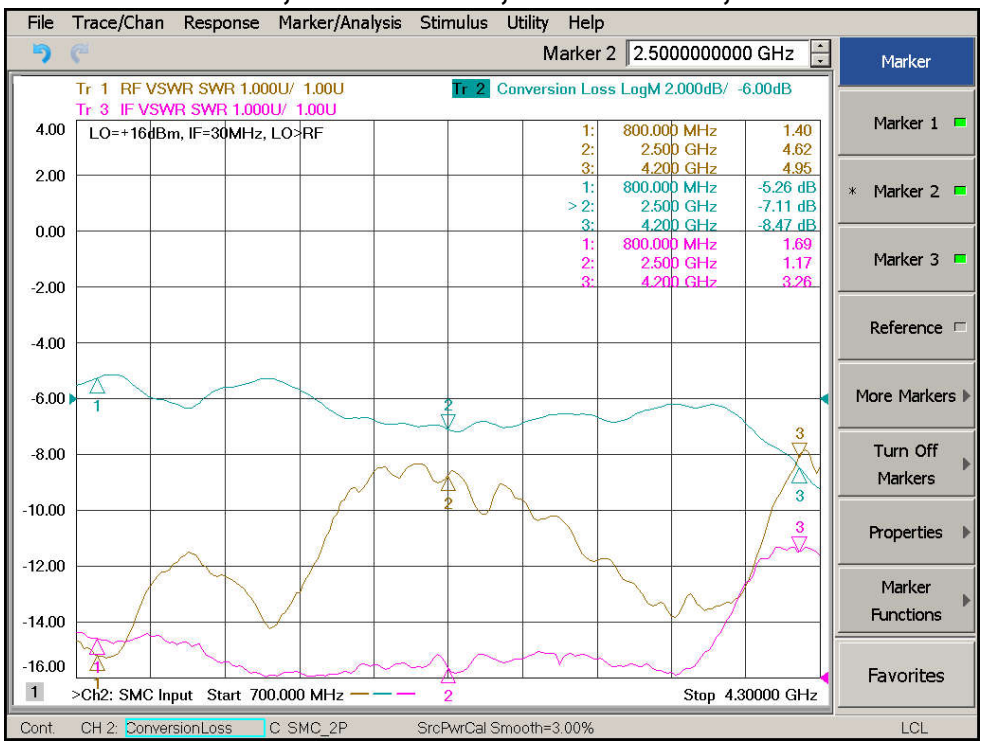
Isolation LO-RF, LO-IF, RF-IF, LO=+13dBm



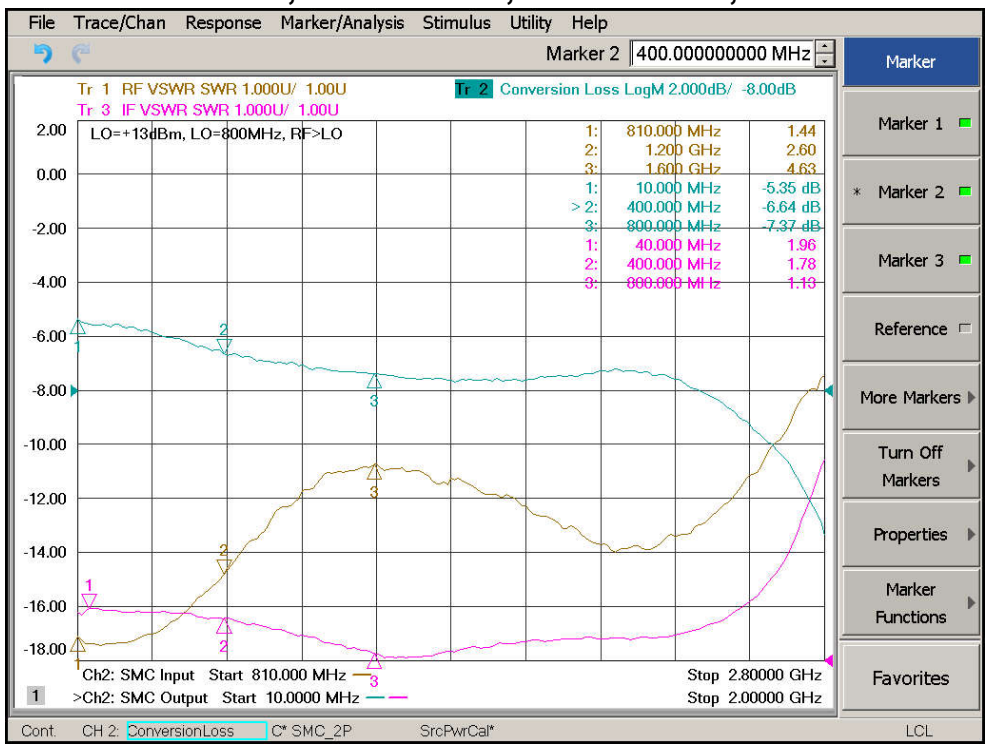
Conversion Loss, RF/IF VSWR, LO=+10dBm, IF=30MHz



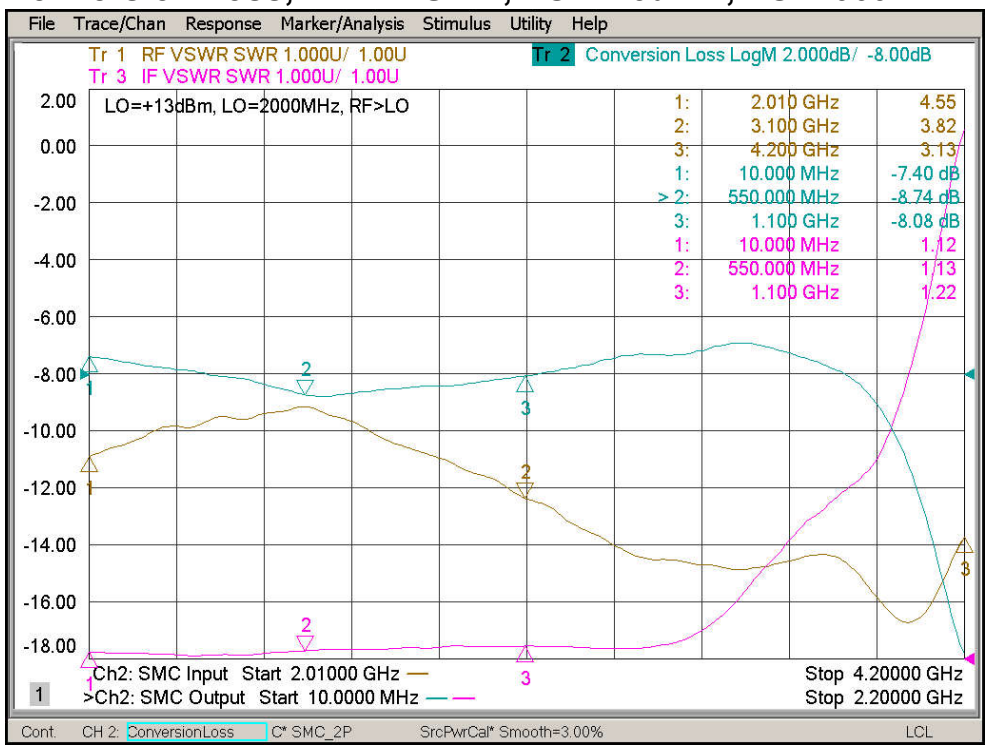
Conversion Loss, RF/IF VSWR, LO=+16dBm, IF=30MHz



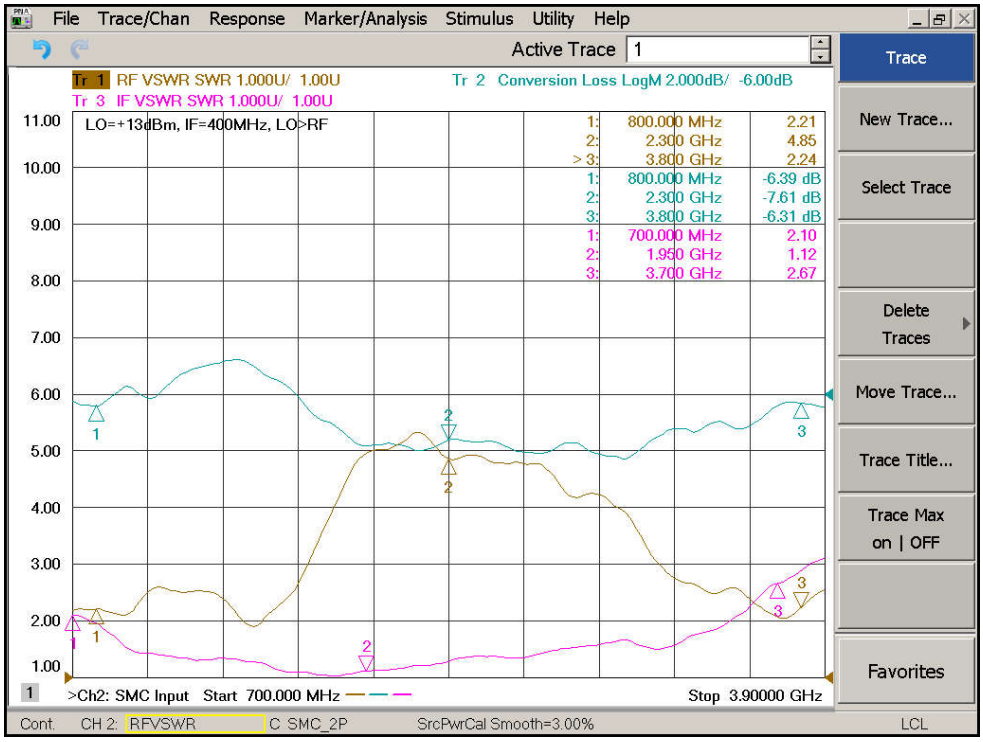
Conversion Loss, RF/IF VSWR, LO=+13dBm, LO=800MHz



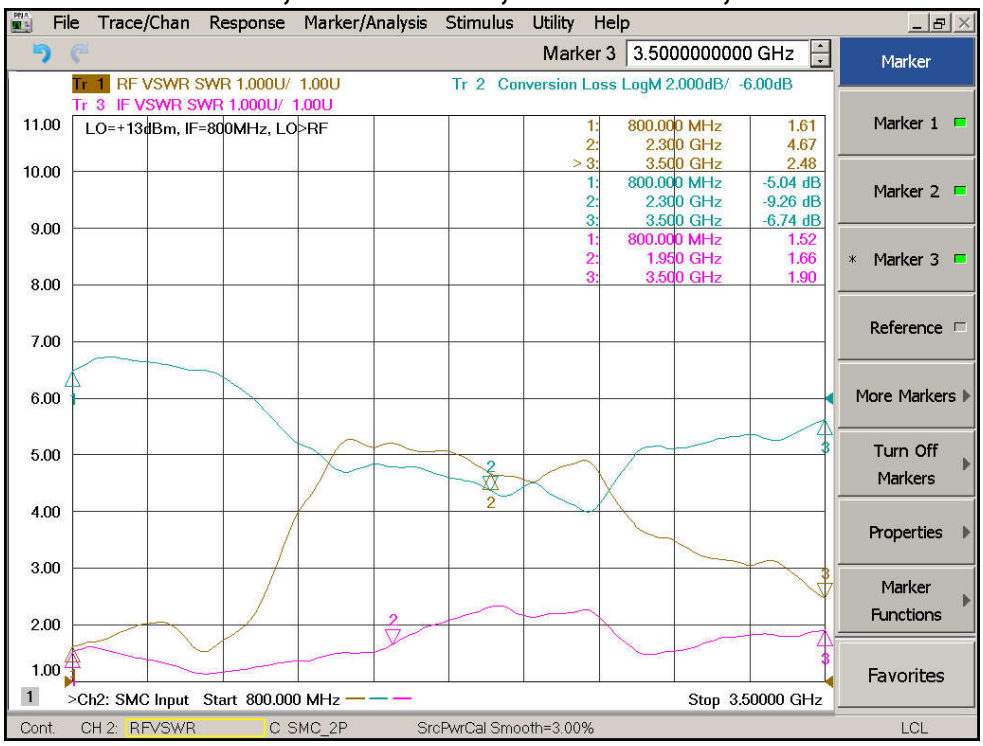
Conversion Loss, RF/IF VSWR, LO=+13dBm, LO=2000MHz



Conversion Loss, RF/IF VSWR, LO=+13dBm, IF=400MHz



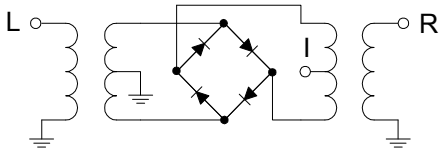
Conversion Loss, RF/IF VSWR, LO=+13dBm, IF=800MHz



Absolute Maximum Ratings

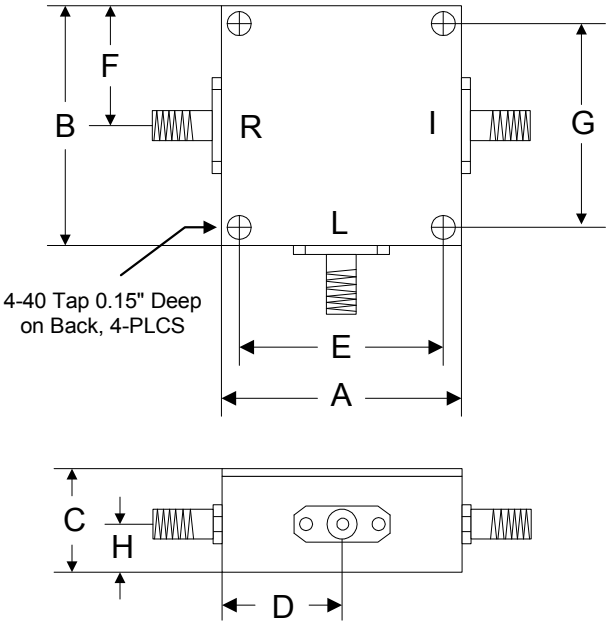
Parameter	Absolute Maximum
RF/LO Power	+23dBm
Peak IF Current	40mA
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C

Schematic



ESD Sensitive Material

Outline



	A	B	C	D	E	F	G	H
Inch	1.250	1.250	0.563	0.625	1.000	0.625	1.000	0.250
mm	31.75	31.75	14.29	15.88	25.40	15.88	25.40	6.35