Frequency Mixer
5 – 3500 MHz

AM003509XD-P3
December 2020
Rev 0

DESCRIPTION

AMCOM's AM003509XD-P3 is a high IP3 passive double balanced mixer operates with LO drive level range of +10dBm to +16dBm.

FEATURES

- LO/RF: 5-3500MHz
- IF: 5-2500MHz
- LO Level: +13dBm
- Conversion Loss: 8.0dB
- RF Input: Up to +9dBm
- IP3: +18dBm
- 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	5		3500
IF	MHz	5		2500
Conversion Loss	dB		8.0	9.5
LO-RF Isolation				
5-50 MHz	dB	28	47	
50-1750MHz	dB	23	33	
1750-3500MHz	dB	18	38	
LO-IF Isolation				
5-50MHz	dB	23	34	
50-1750MHz	dB	18	28	
1750-3500MHz	dB	17	23	
RF VSWR			2.0:1	2.5:1
IF VSWR			1.5:1	2.0:1
RF Input Power up to	dBm	+7	+9	
IP3 (Center Band)	dBm	+15	+18	

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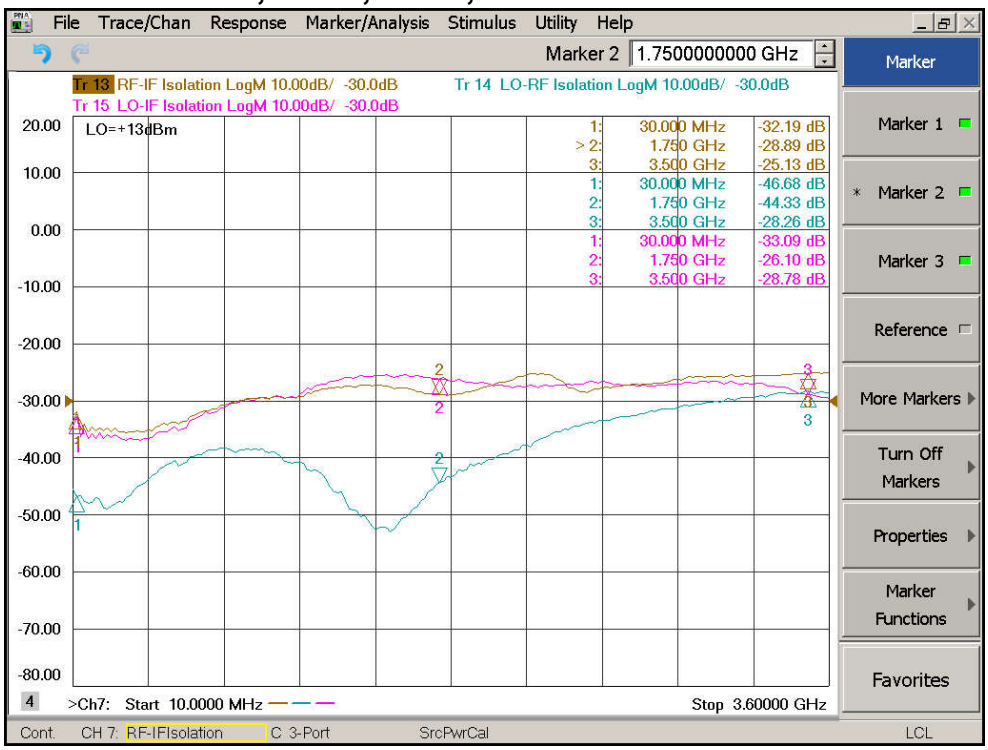
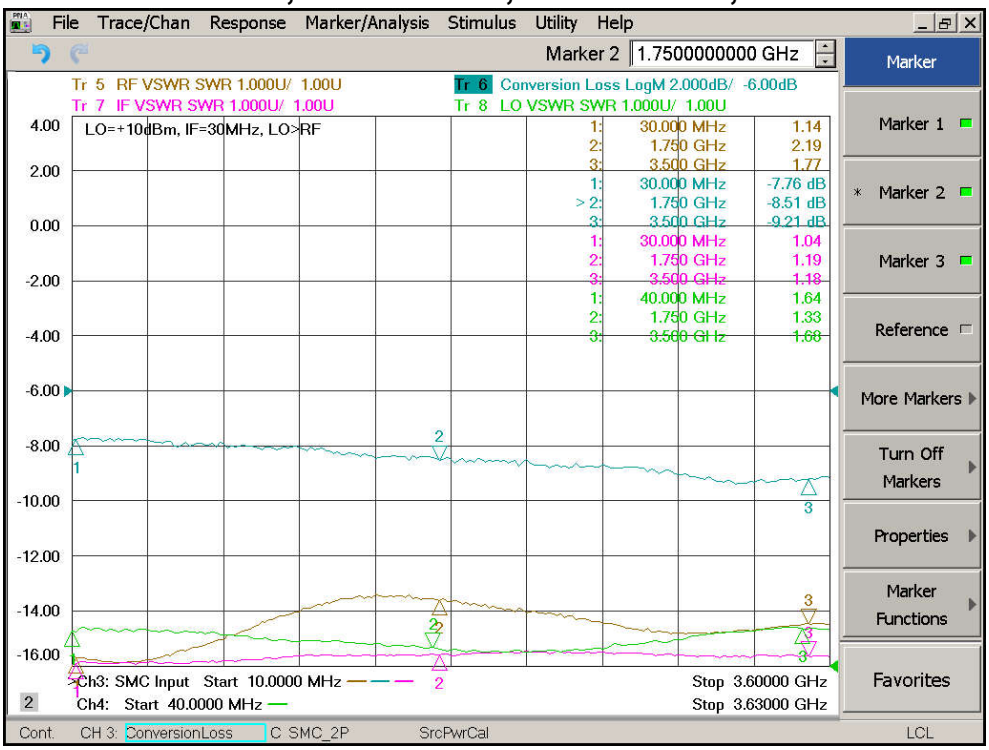
Conversion Loss, RF/IF/LO VSWR, LO=+13dBm, IF=30MHz

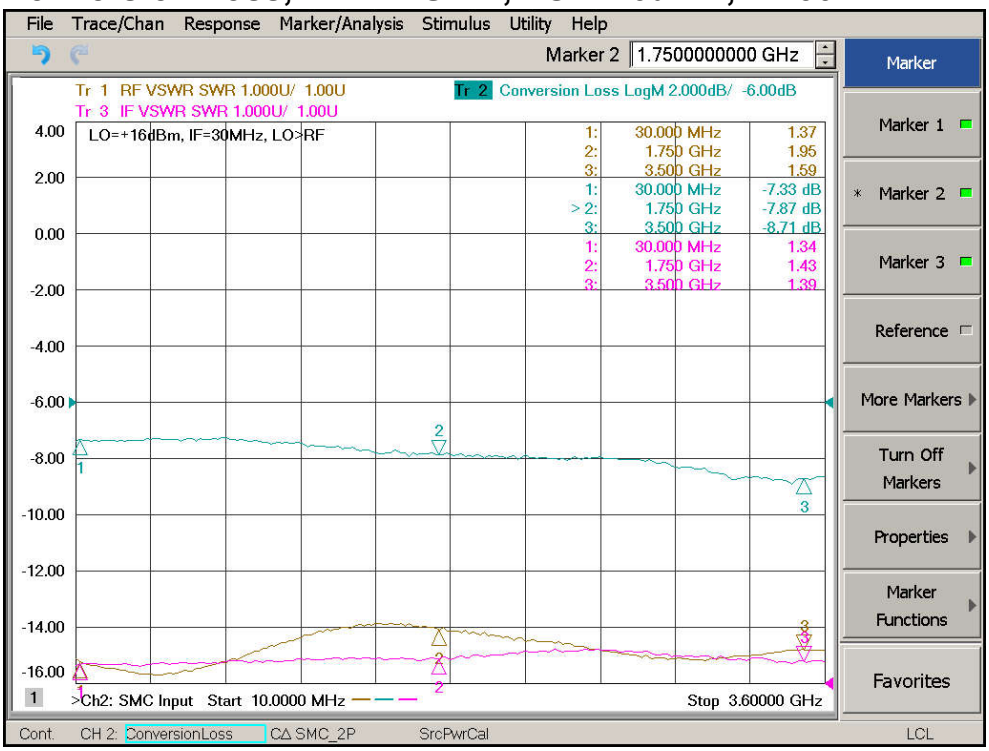
Isolation LO-RF, LO-IF, RF-IF, LO=+13dBm



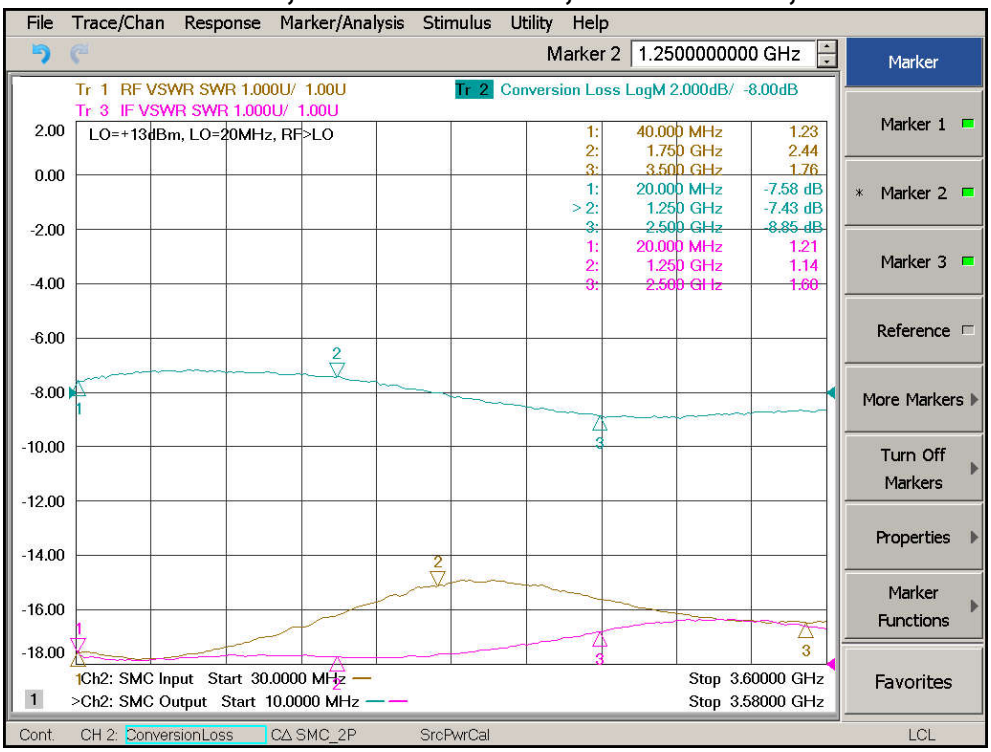
Conversion Loss, RF/IF VSWR, LO=+10dBm, IF=30MHz



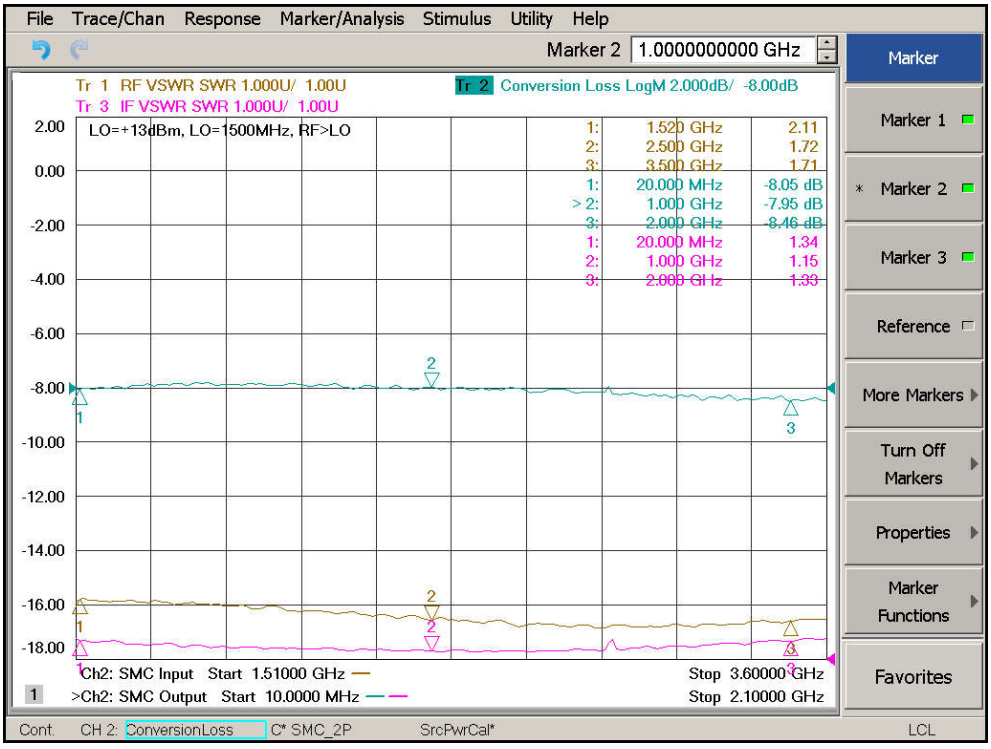
Conversion Loss, RF/IF VSWR, LO=+16dBm, IF=30MHz



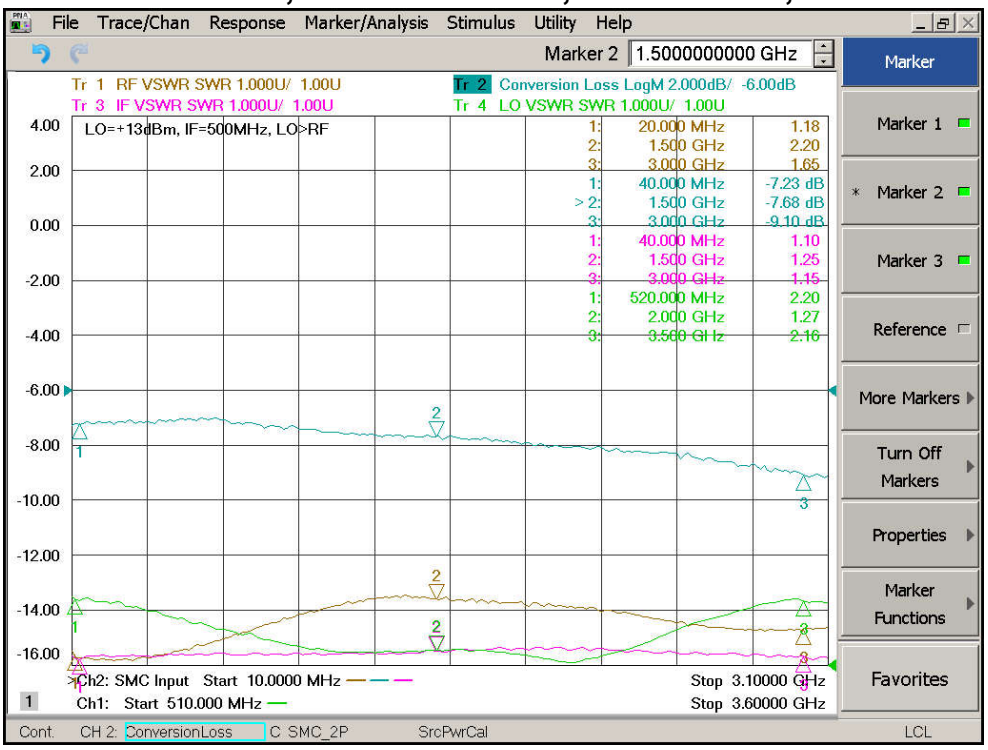
Conversion Loss, RF/IF/LO VSWR, LO=+13dBm, LO=20MHz

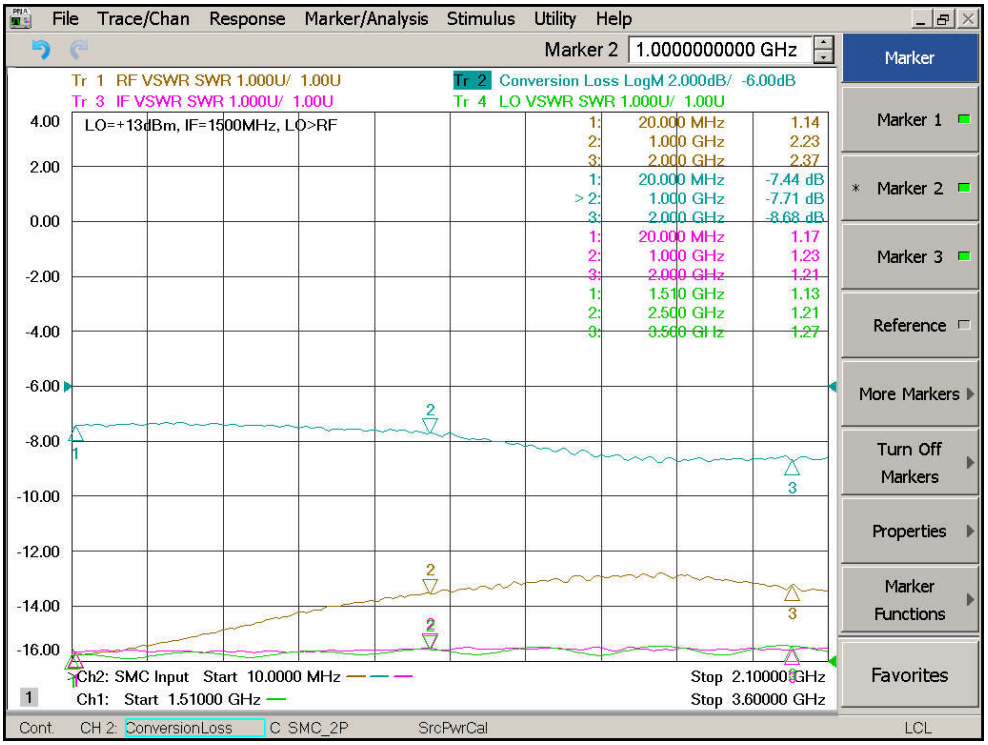


Conversion Loss, RF/IF/LO VSWR, LO=+13dBm, LO=1500MHz



Conversion Loss, RF/IF/LO VSWR, LO=+13dBm, IF=500MHz

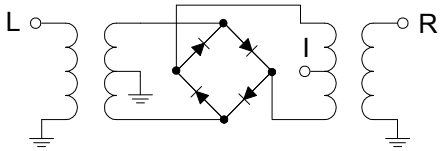




Absolute Maximum Ratings

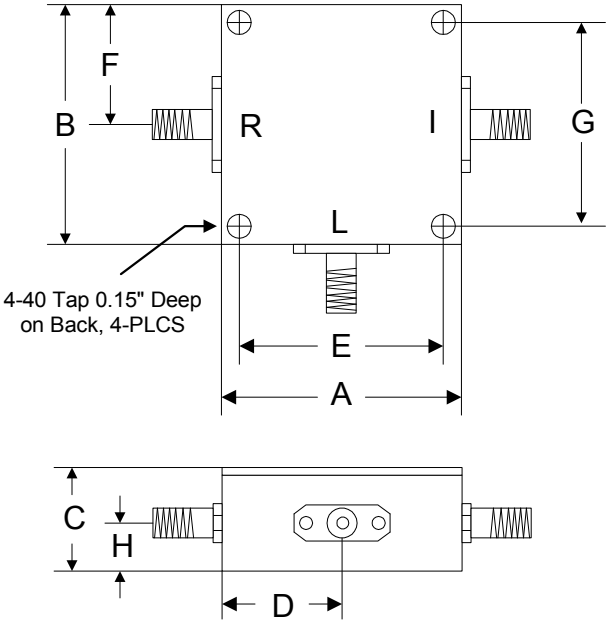
Parameter	Absolute Maximum
RF/IF Power	+23dBm
LO Power	+23dBm
Peak IF Current	40mA
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C

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