Frequency Mixer
5 – 12 GHz

AM05012008XD-P4
December 2020
Rev 0

DESCRIPTION

AMCOM's AM05012008XD-P4 is a passive double balanced mixer with 5 to 12GHz at RF/LO port and DC to 4GHz at IF port. The mixer operates with LO drive level +10dBm.

FEATURES

- LO/RF: 5–12GHz
- IF: DC–4GHz
- LO Level: +10dBm
- Conversion Loss: 8.5dB typ.
- RF Input: Up to +8dBm
- Input IP3: +16dBm
- SMA Female All Ports

APPLICATIONS

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

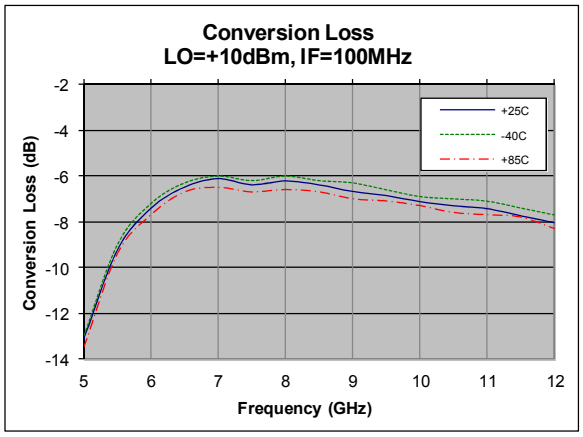
Electrical Specifications @ +25 °C, IF=100MHz, LO=+10dBm, 50 Ω

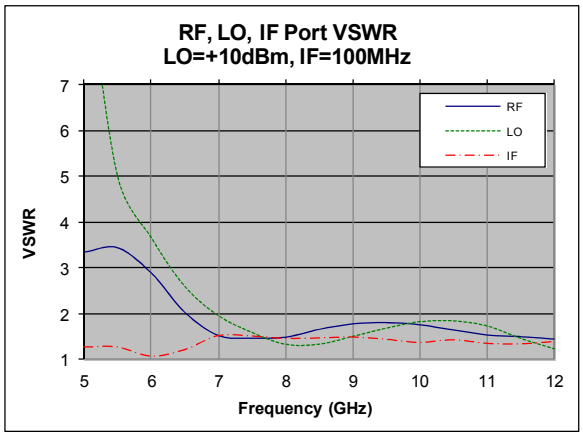
Unless otherwise noted, all measurements performed as a downconverter.

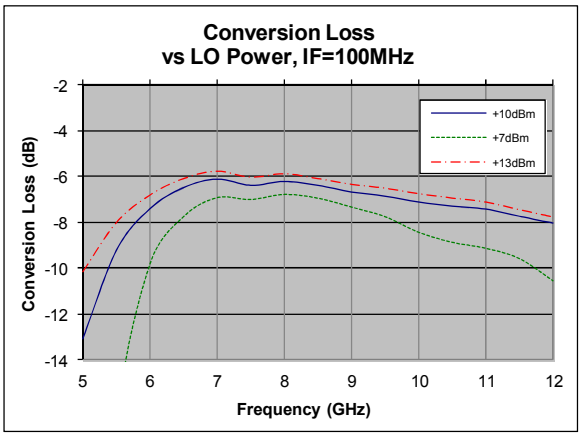
Parameter		Unit	Minimum	Typical	Maximum
Frequency Range	LO/RF IF	GHz GHz	5 DC		12 4
Conversion Loss	LO/RF: 5-10GHz LO/RF: 10-12GHz	dB dB		7 8.5	10 10.5
LO-RF Isolation	LO/RF: 5-10GHz LO/RF: 10-12GHz	dB dB		25 18	
LO-IF Isolation	LO/RF: 5-10GHz LO/RF: 10-12GHz	dB dB		28 20	
RF-IF Isolation	LO/RF: 5-10GHz LO/RF: 10-12GHz	dB dB		25 25	
RF Input P_{1dB}	LO/RF: 5-10GHz LO/RF: 10-12GHz	dBm dBm		+8 +8	
Input IP3	LO/RF: 5-10GHz LO/RF: 10-12GHz	dBm dBm		+16 +18	

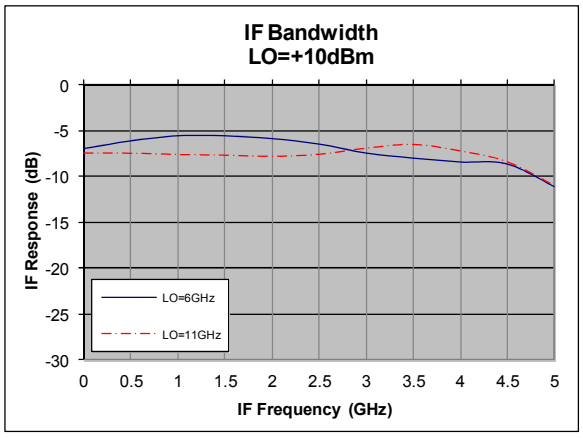
Email: info@amcomusa.com
Website: www.amcomusa.com
Tel. (301) 353-8400 Fax. (301) 353-8401
401 Professional Drive, Gaithersburg, MD20879

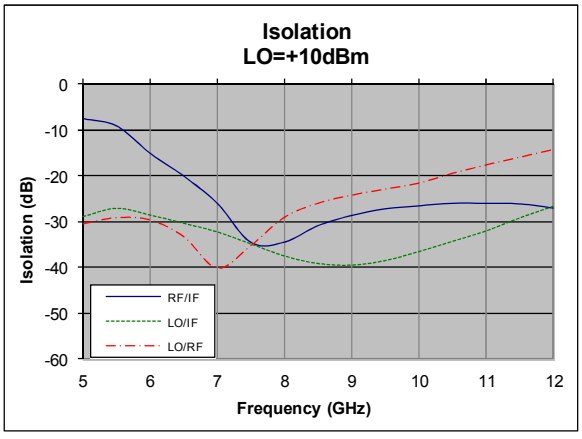
Typical Performance

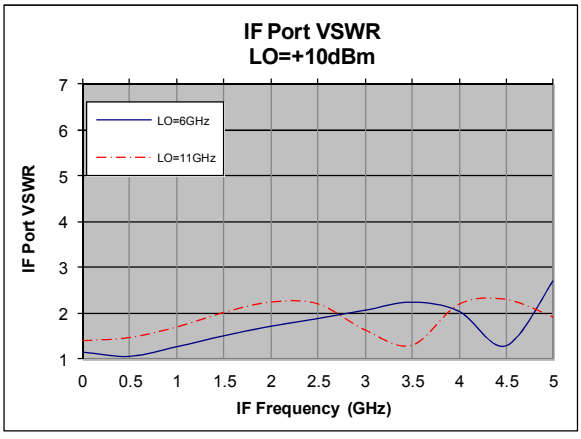




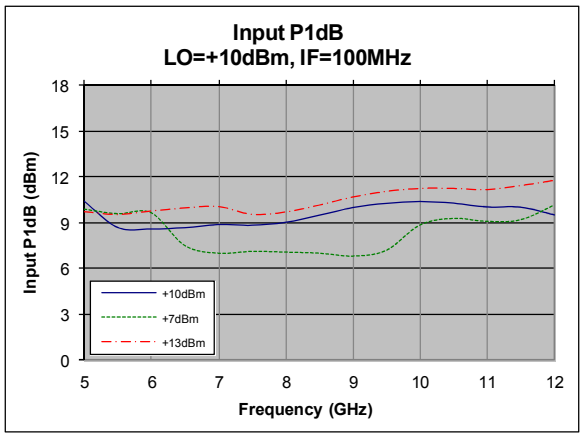


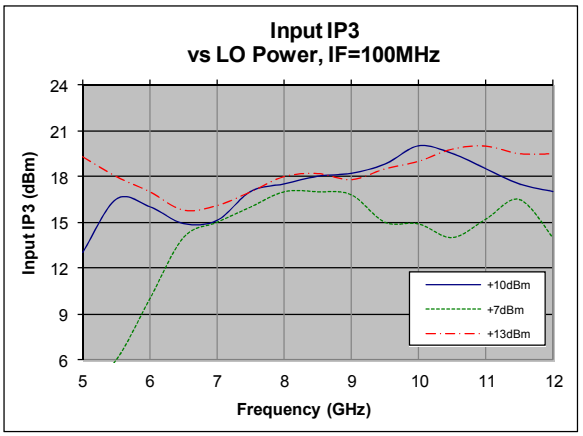


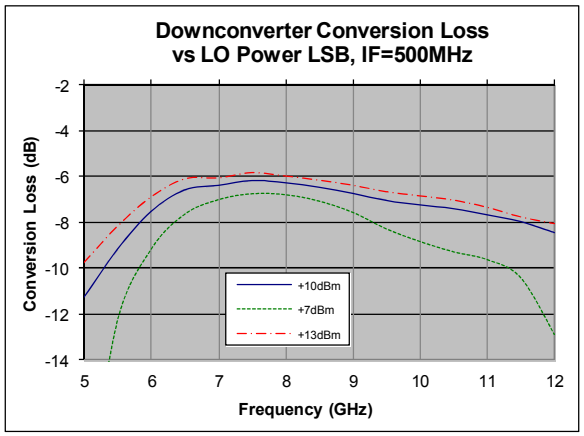


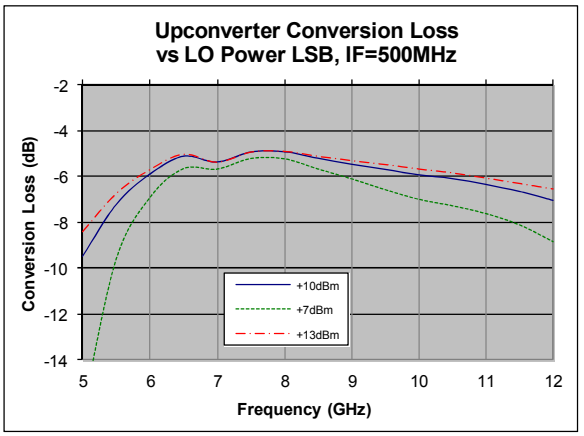


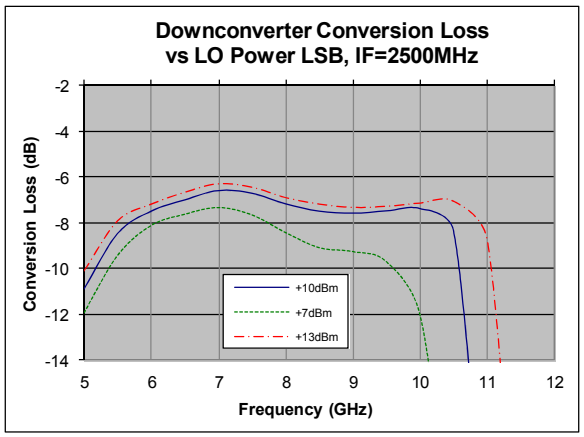
Typical Performance

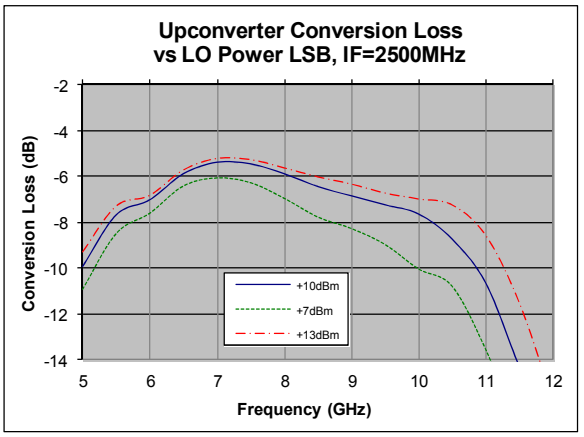








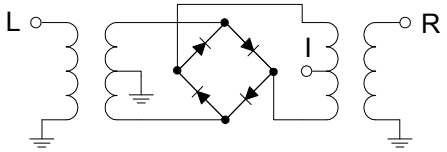




Absolute Maximum Ratings

Parameter	Absolute Maximum
RF/IF Power	+13dBm
LO Driver	+27dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-65 °C to +150 °C

Schematic



Outline