

Level 17

3-10GHz Frequency Mixer

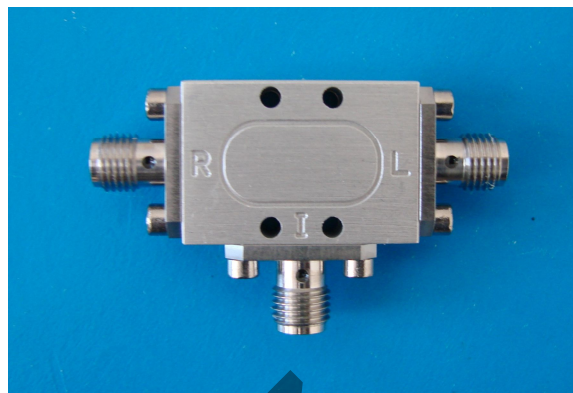
Features

- LO/RF: 3–10GHz
- IF: DC–4GHz
- LO Level: +17dBm
- Conversion Loss: 9dB typ.
- RF Input: Up to +15dBm
- Input IP3: +23dBm
- SMA Female All Ports

Description

GXR-2 is a passive double balanced mixer with 3 to 10GHz at RF/LO port and DC to 4GHz at IF port. The mixer operates with LO drive level +17dBm.

Picture



Electrical Specifications @ +25 °C, IF=100MHz, LO=+17dBm, 50 Ω

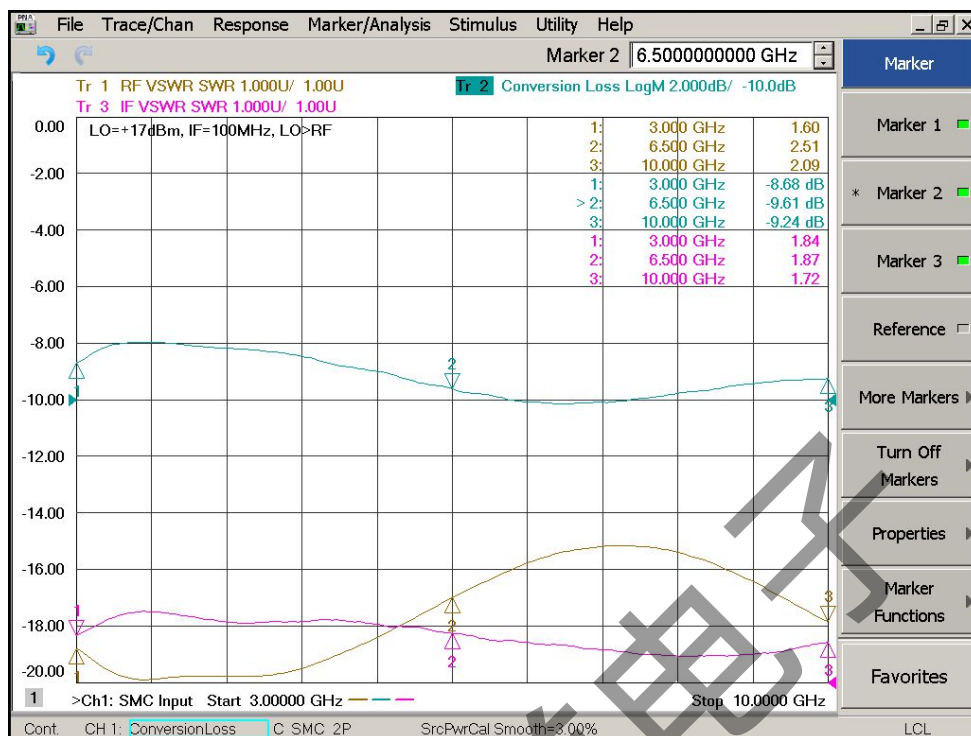
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range LO/RF	GHz	3		10
IF	GHz	DC		4
Conversion Loss	dB		9	12
LO-RF Isolation	dB	35	45	
LO-IF Isolation	dB	20	45	
RF-IF Isolation	dB	10	20	
RF VSWR			2.5:1	4.0:1
IF VSWR			2.0:1	3.0:1
LO VSWR			2.0:1	3.0:1
RF Input P _{1dB}	dBm	+13	+15	
Input IP2	dBm	+65	+70	
Input IP3	dBm	+20	+23	

Unless otherwise noted, all measurements performed as a downconverter.

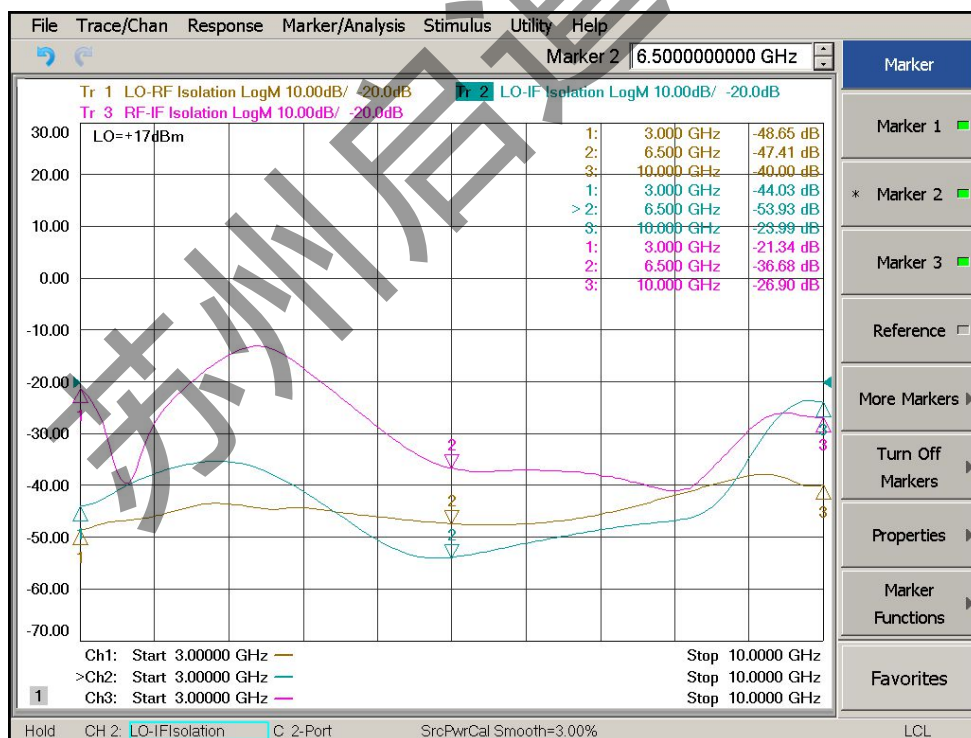
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Conversion Loss, RF/IF VSWR, LO=+17dBm, IF=100MHz



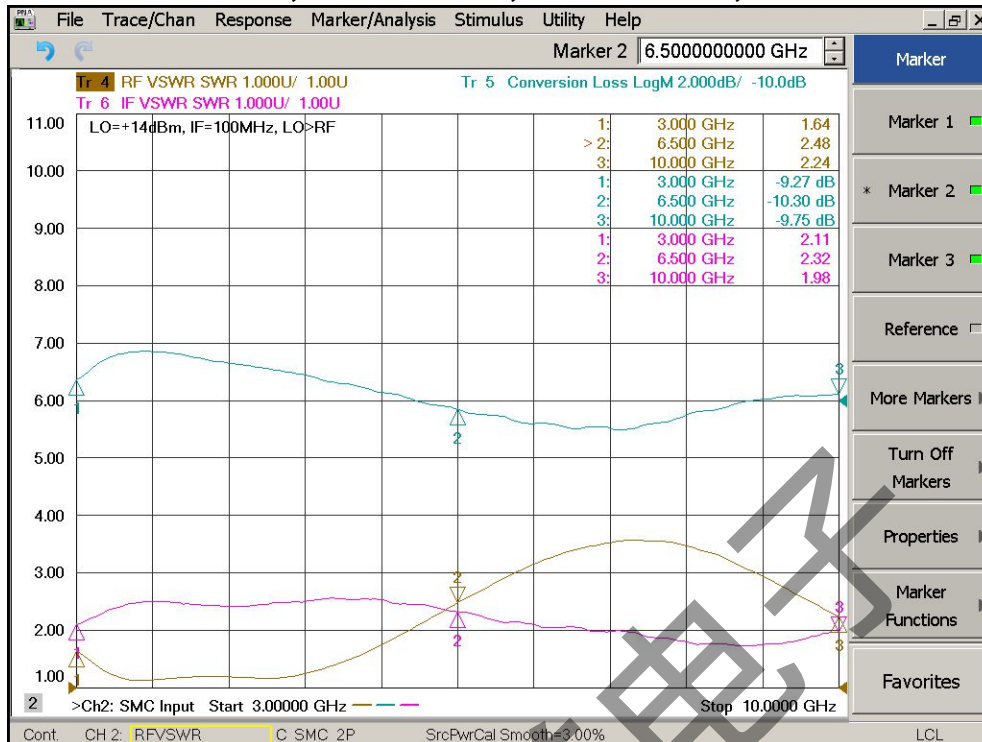
Isolation LO-RF, LO-IF, RF-IF, LO=+17dBm



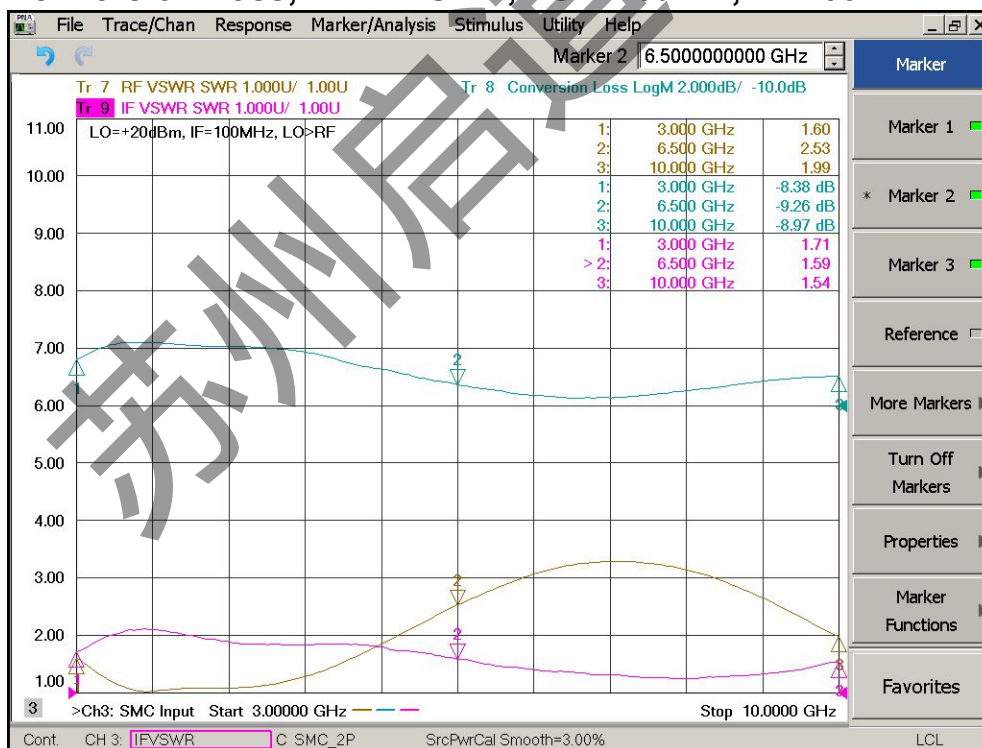
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Conversion Loss, RF/IF VSWR, LO=+14dBm, IF=100MHz



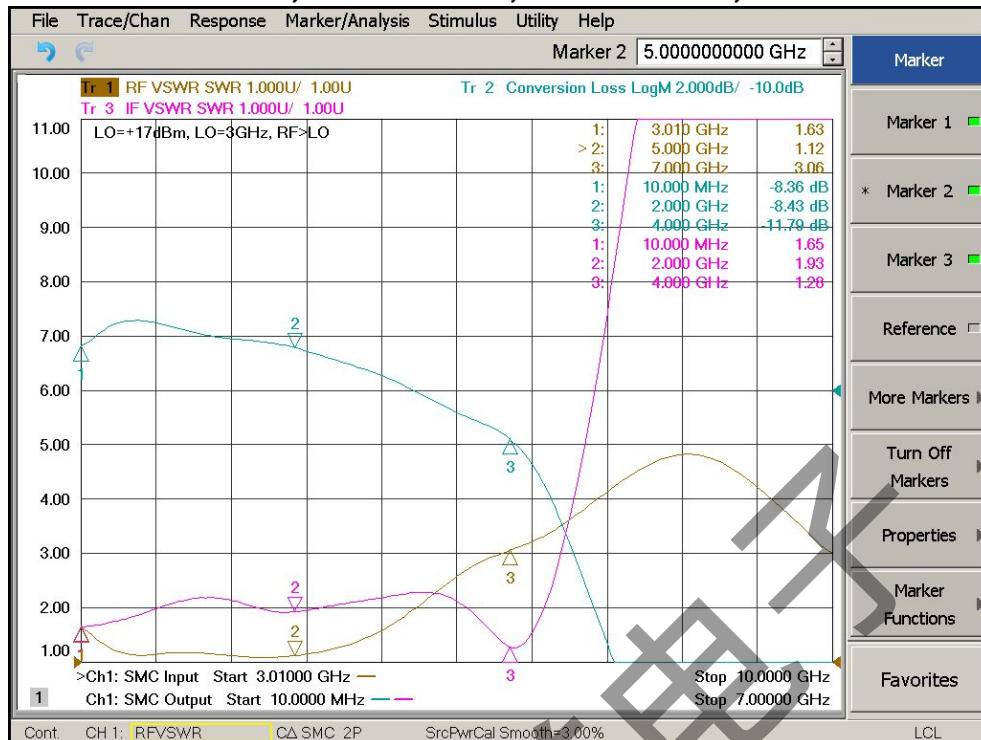
Conversion Loss, RF/IF VSWR, LO=+20dBm, IF=100MHz



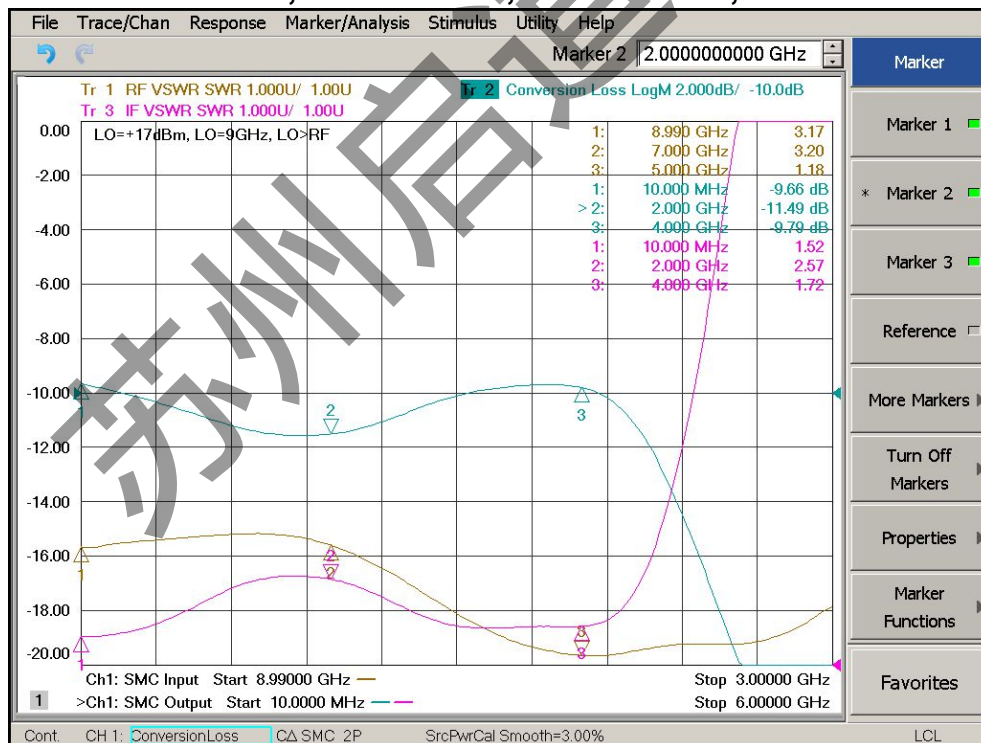
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Conversion Loss, RF/IF VSWR, LO=+17dBm, LO=3GHz



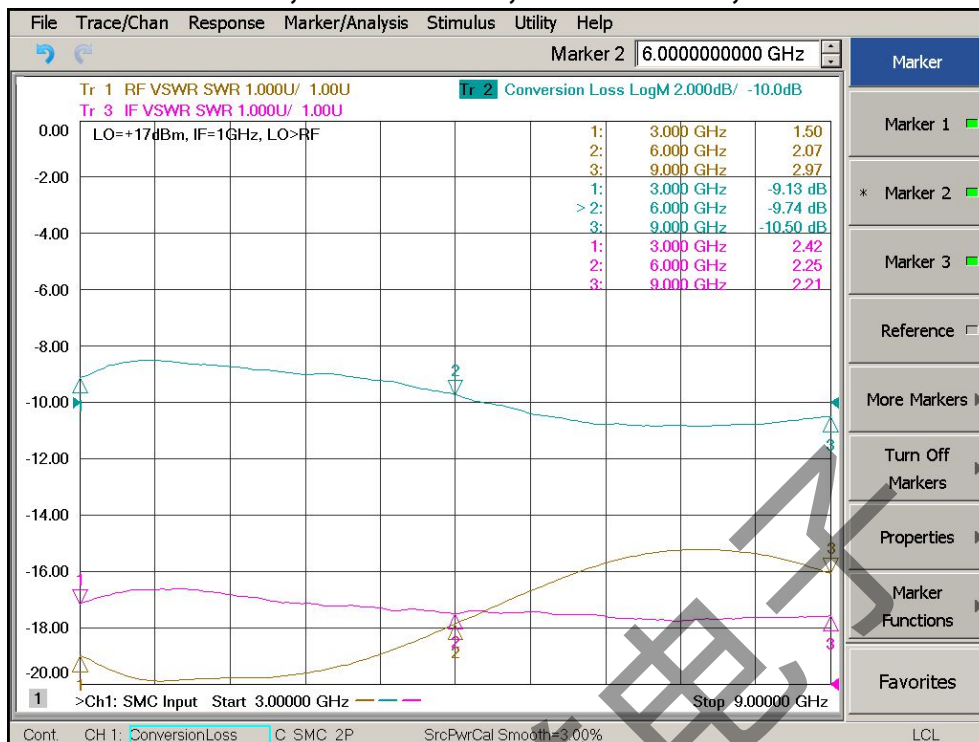
Conversion Loss, RF/IF VSWR, LO=+17dBm, LO=9GHz



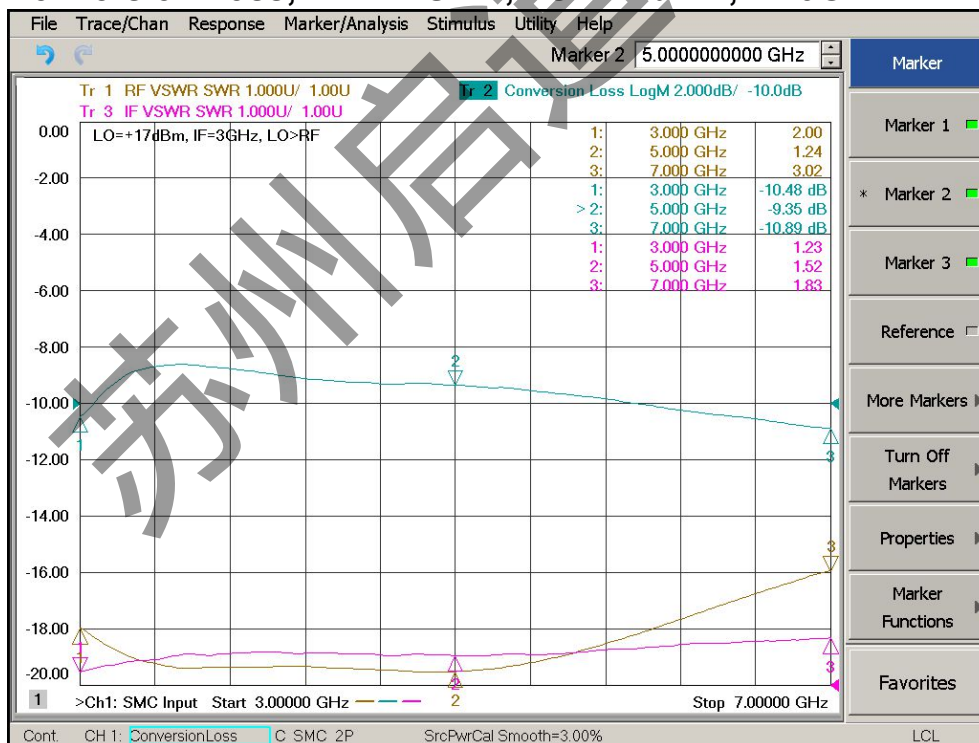
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Conversion Loss, RF/IF VSWR, LO=+17dBm, IF=1GHz



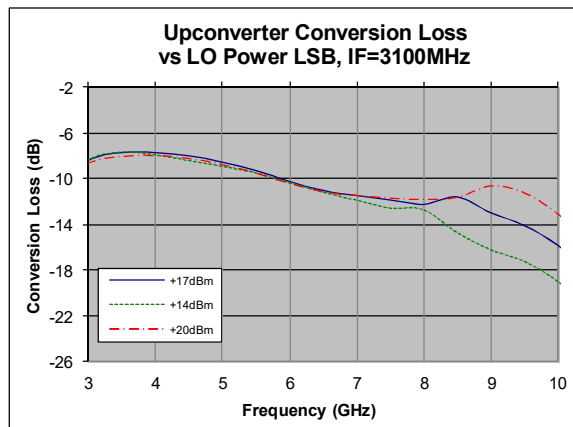
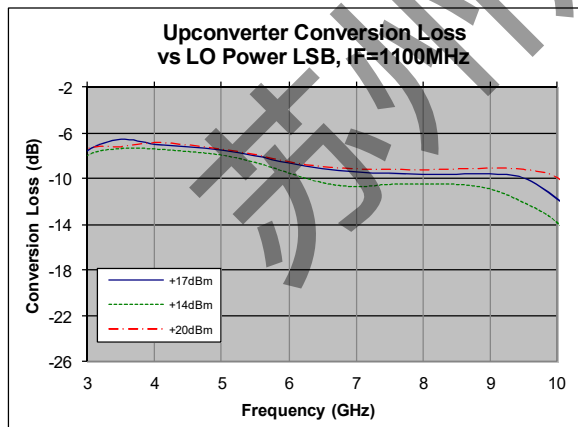
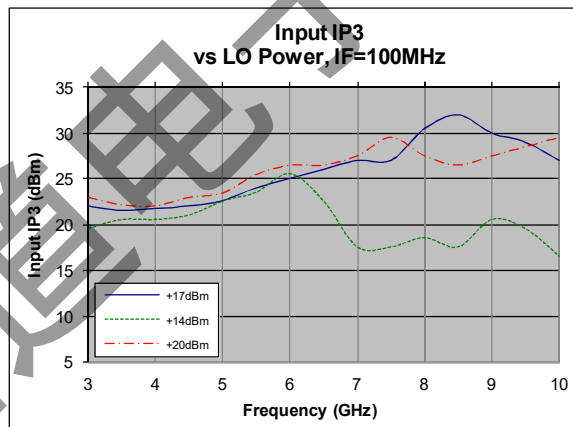
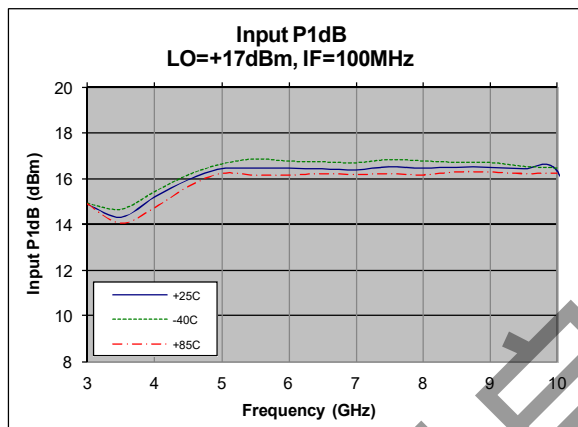
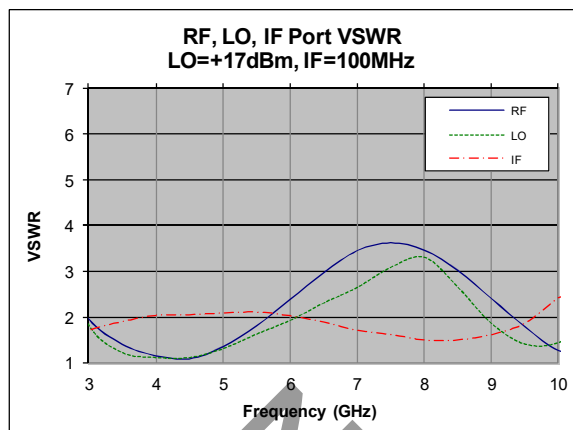
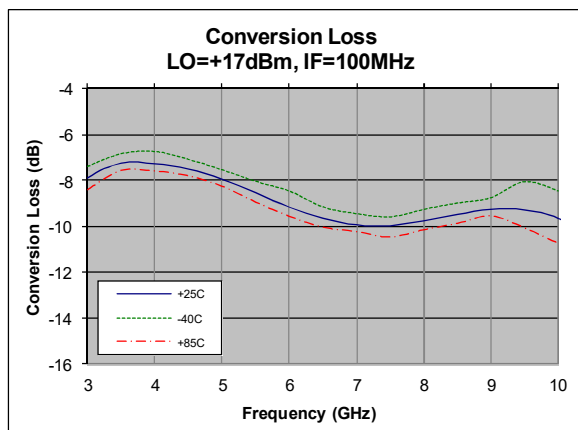
Conversion Loss, RF/IF VSWR, LO=+17dBm, IF=3GHz



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Typical Performance



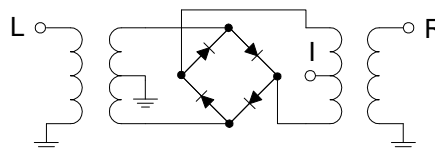
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Power	+26dBm
LO Driver	+26dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-65 °C to +150 °C

Schematic



ESD Sensitive Material



Outline

