

5.5-14GHz Frequency Mixer

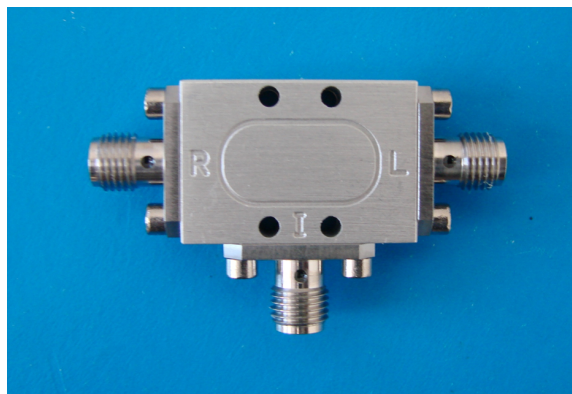
Features

- LO/RF: 5.5–14GHz
- IF: DC–6GHz
- LO Level: +15dBm
- Conversion Loss: 7dB typ.
- RF Input: Up to +13dBm
- Input IP3: +24dBm
- SMA Female All Ports

Description

HD32509 is a passive double balanced mixer with 5.5 to 14GHz at RF/LO port and DC to 6GHz at IF port. The mixer operates with LO drive level +15dBm.

Picture

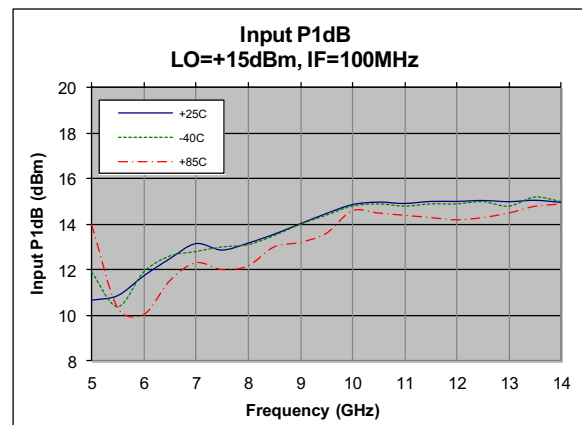
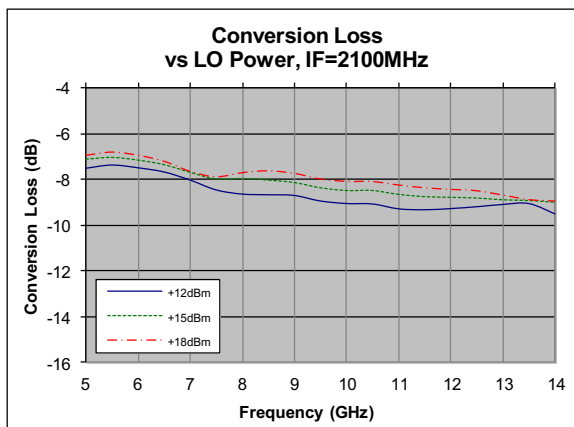
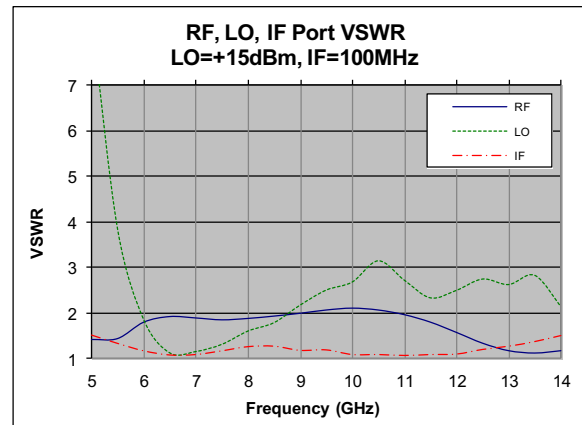
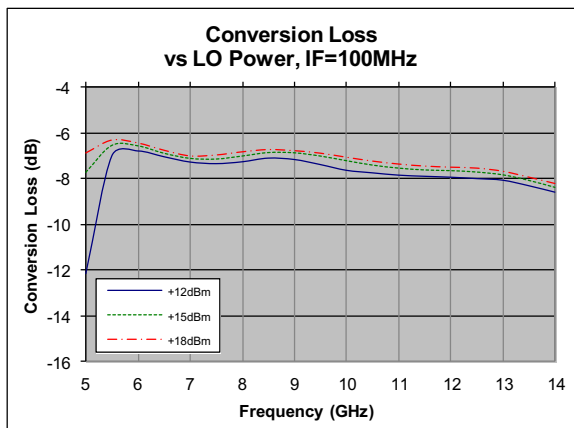
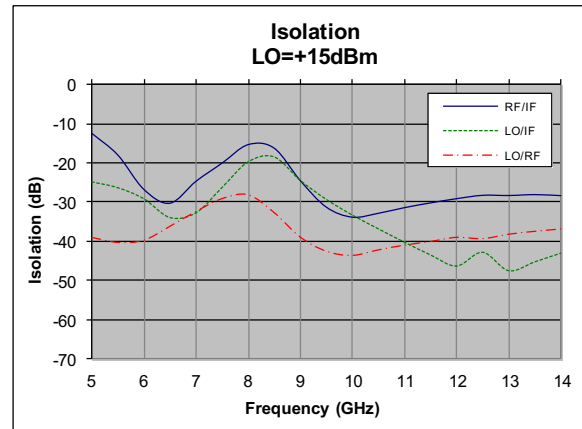
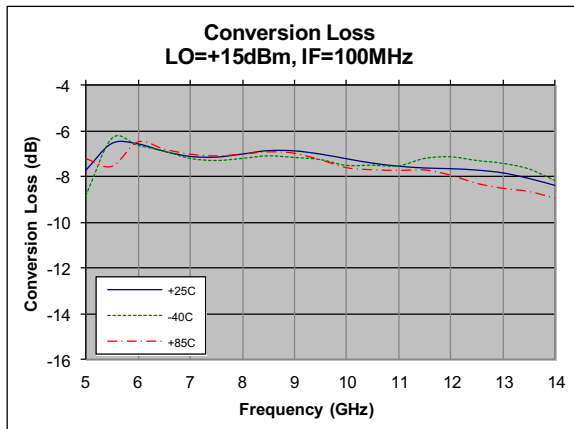


Electrical Specifications @ +25 °C, IF=100MHz, LO=+15dBm, 50 Ω

Parameter		Unit	Minimum	Typical	Maximum
Frequency Range	LO/RF	GHz	5.5		14
	IF	GHz	DC		6
Conversion Loss	LO/RF: 5.5-10GHz	dB		7	9.5
	LO/RF: 10-14GHz	dB		8.5	10
LO-RF Isolation	LO/RF: 5.5-10GHz	dB	35	45	
	LO/RF: 10-14GHz	dB	30	36	
LO-IF Isolation	LO/RF: 5.5-10GHz	dB	20	25	
	LO/RF: 10-14GHz	dB	20	25	
RF-IF Isolation	LO/RF: 5.5-10GHz	dB	8	14	
	LO/RF: 10-14GHz	dB	10	16	
RF Input P _{1dB}	LO/RF: 5.5-10GHz	dBm		+11	
	LO/RF: 10-14GHz	dBm		+13	
Input IP3	LO/RF: 5.5-10GHz	dBm		+20	
	LO/RF: 10-14GHz	dBm		+24	
Input IP2	LO/RF: 5.5-10GHz	dBm		+54	
	LO/RF: 10-14GHz	dBm		+46	

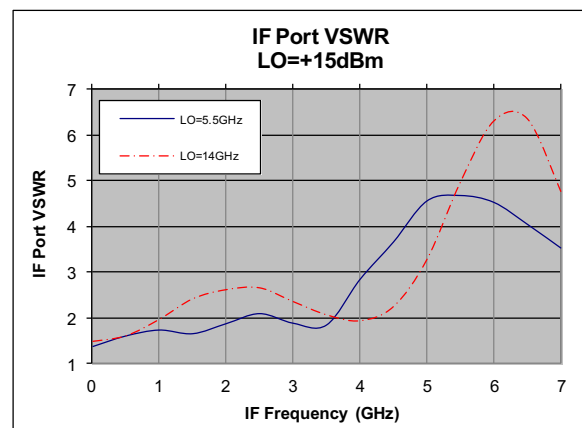
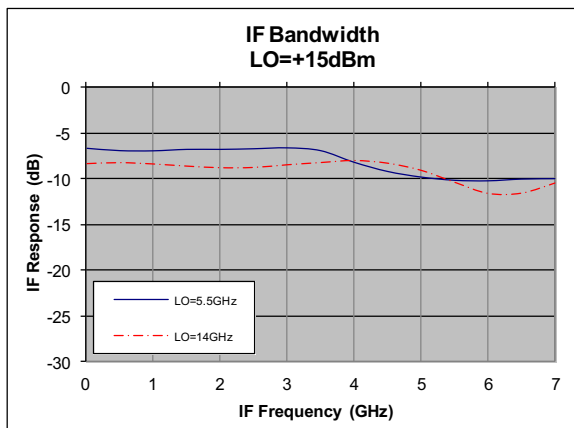
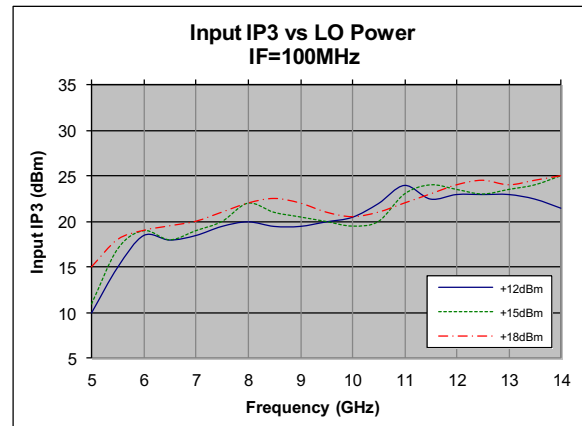
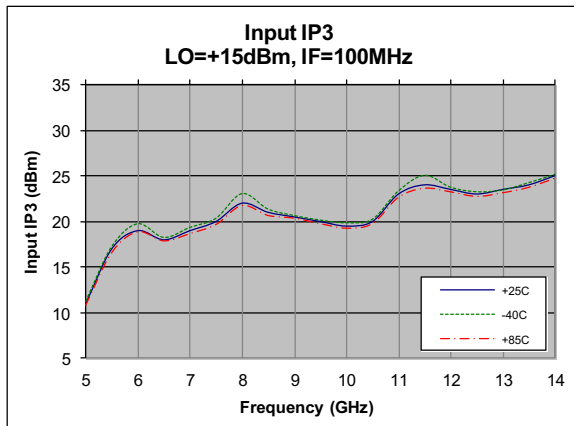
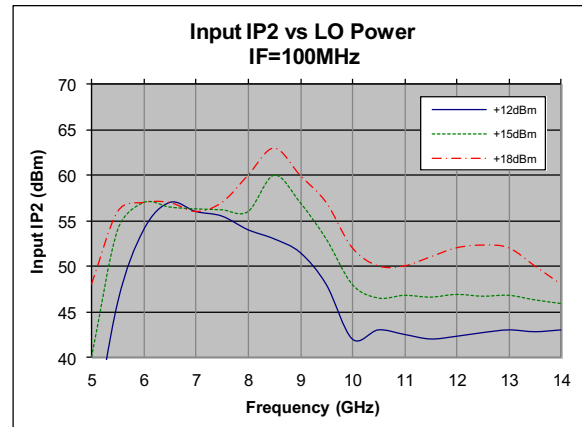
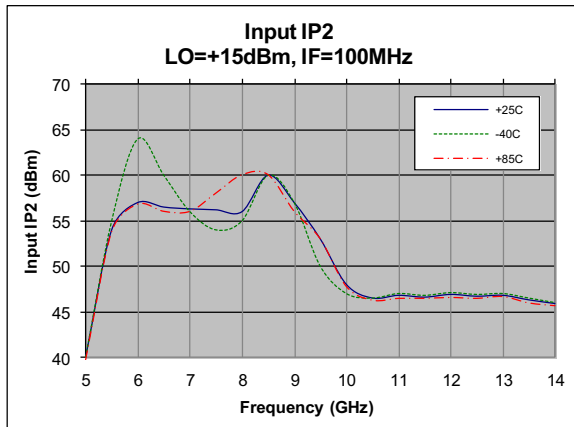
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Typical Performance



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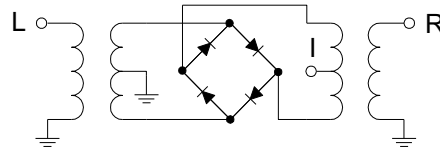


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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF IF Power	+25dBm
LO Driver	+25dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-65 °C to +150 °C

Schematic



Outline

