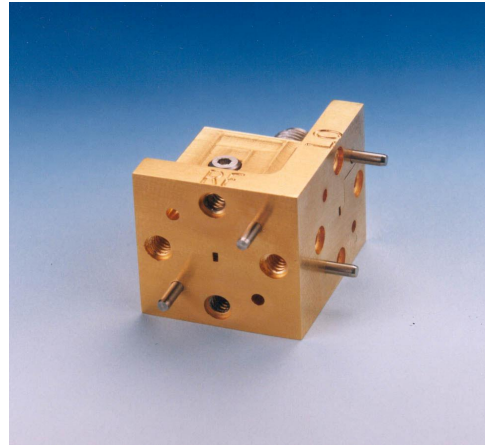


Datasheet

Description

Farran Technology offers a wide variety of balanced mixers. These are based on planar technology and GaAs Schottky barrier beam lead diodes. They feature low conversion loss, low noise figure, excellent noise suppression and LO-RF isolation. The LO drive requirement can be reduced by operating the mixers with bias. They are extremely rugged devices for small physical size and mass. Designs are chosen from a portfolio of mixer architectures depending on the customer's detailed requirements. IF frequency coverage to at least 18GHz is available and full RF/LO bandwidths may be provided in certain frequency bands.



Features

- " Planar GaAs diodes
- " Rugged compact design
- " High reliability
- " Low noise figure & conversion loss
- " Broad bandwidth
- " Biased designs available

Applications

- " Communications
- " Radiometry
- " Radar
- " Laboratory Test Systems

Datasheet

Specification BMC-15-000X	Unit	Min	Typ	Max
(Unbiased Mixer)				
RF Frequency Range	GHz	50		75
Conversion Loss (Full RF Band, Fixed LO @ centre Freq)	dB		7.5	12
Conversion Loss (Full RF Band, Swept LO, IF<4GHz)	dB		8.5	13
LO Power	dBm		+10	+13

Specification BMC-15B-000X	Unit	Min	Typ	Max
(Biased Mixer)				
RF Frequency Range	GHz	50		75
Conversion Loss (Full RF Band, Fixed LO @ centre Freq)	dB		8.5	13
Conversion Loss (Full RF Band, Swept LO, IF<4GHz)	dB		10	15
LO Power	dBm		0	+3

Datasheet

Typical Plots:

BMC 15 Conversion Loss Characteristic Date 29-04-09

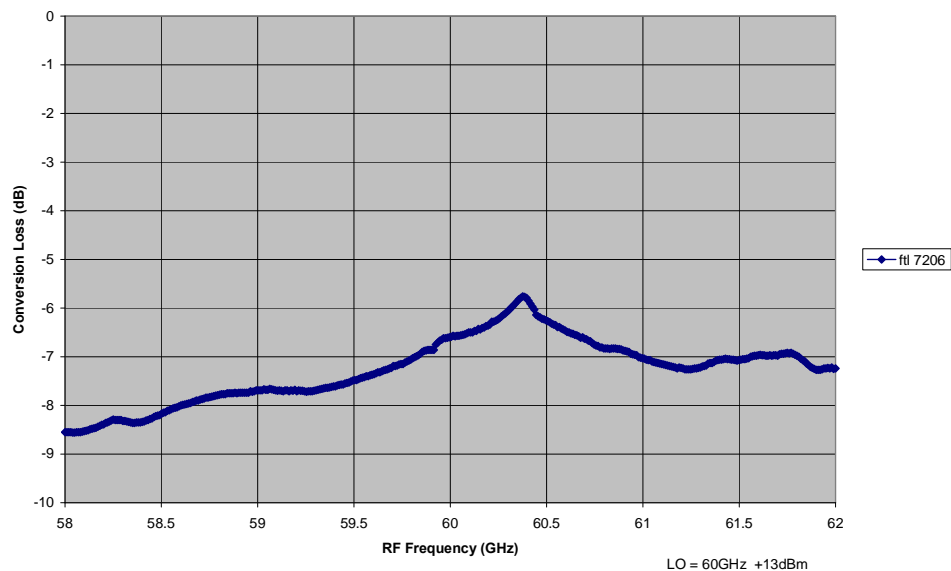


Figure 1 Conversion Loss (58 – 62 GHz) LO = 60 GHz BMC-15 (Unbiased)

Conversion Loss v RF Frequency for fixed IF = 400MHz (LO Swept)

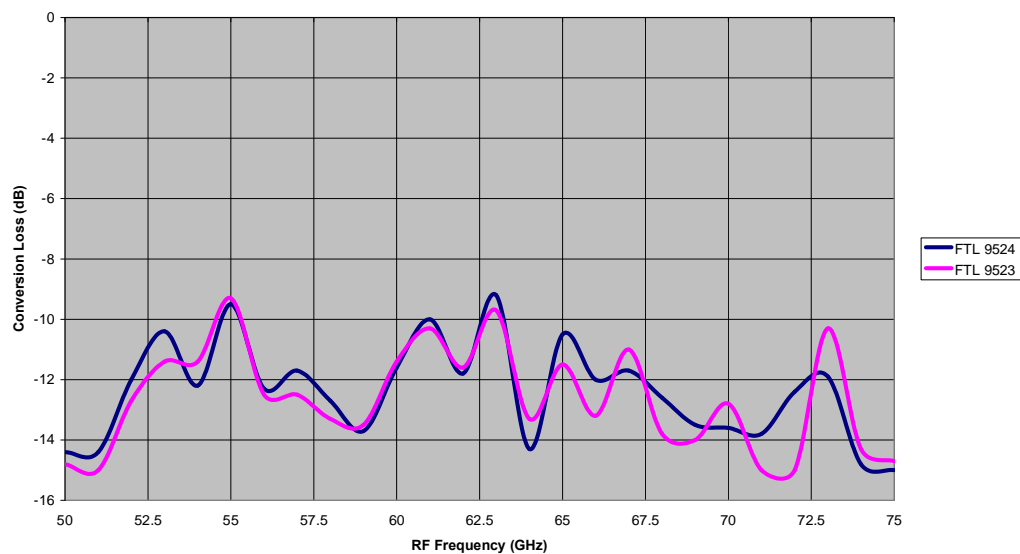


Figure 2 Conversion Loss Full Band (50 – 75 GHz) LO swept BMC-15B (Biased)

Datasheet

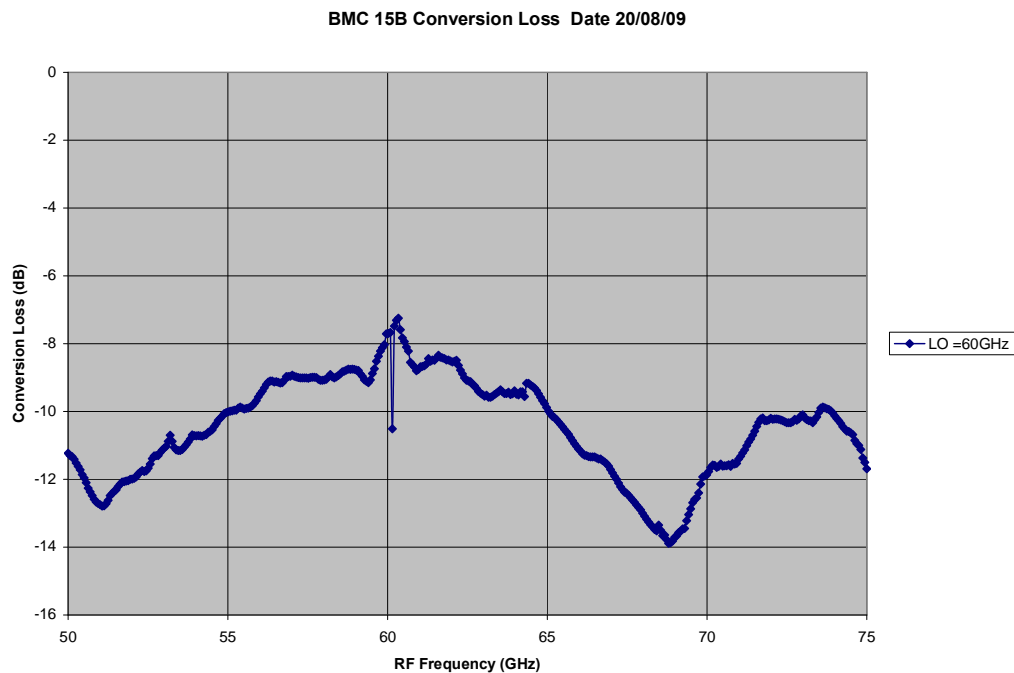


Figure 3 Conversion Loss Full Band (50 – 75 GHz) LO = 60 GHz BMC-15B (Biased)

Note:

The data contained in this document is valid at time of publishing. Farran Technology reserves the right to change, without notice, the characteristic data and other specifications applied to this product. The product may be subject to Irish export restrictions.