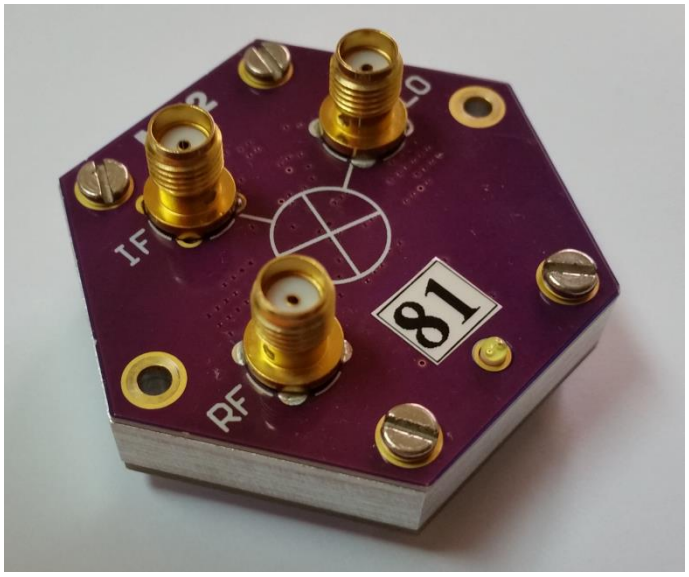
MX2 Wide band Mixer

MX2



Description

MX2 is a high performance, Wide band Microwave double balanced active mixer that can be used for frequency up conversion or down conversion.

Features

- Wide Band RF: 10 MHz to 6000 MHz
- Wide Band LO: 10 MHz to 6000 MHz
- Wide Band IF : 2 MHz to 600 MHz
- Up Conversion or Down Conversion
- P1dB Output Power: 11 dBm @ 6 GHz
- Input IP3: +22 dBm @ 6 GHz
- Conversion loss : 5 dB @ 6 GHz
- Integrated LO Buffer : 0 dBm LO drive power
- 50 Ohm Matched ports

Applications

- Cellular/3G & LTE/WiMAX/4G
- Microwave Radio
- Test & Measurement Equipment

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Electrical Specifications.

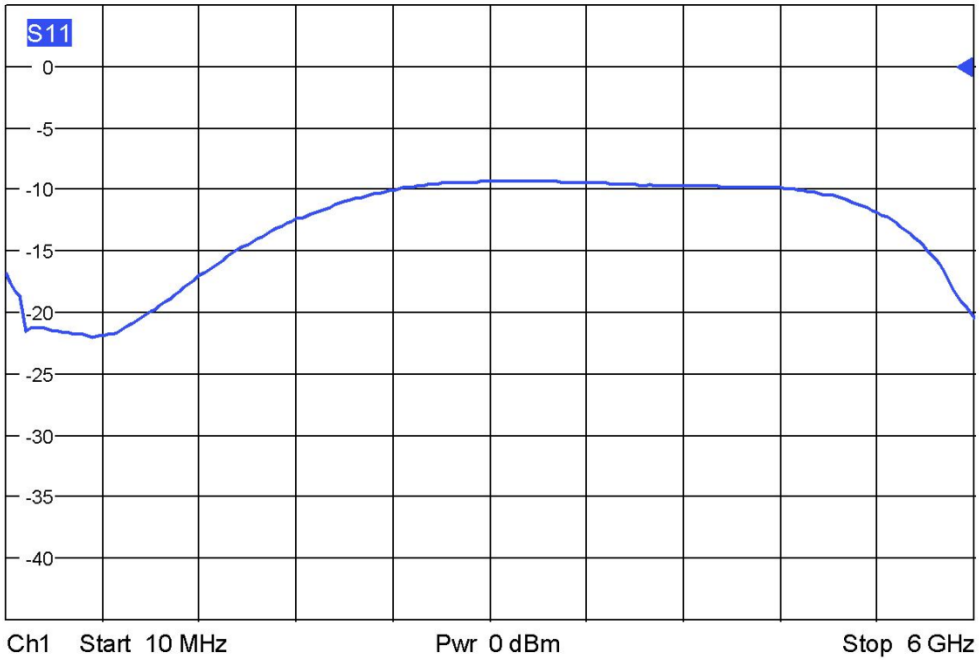
Parameter		Min.	Typ.	Max.	Units
Frequency Range	RF	10		6000	MHz
	LO	10		6000	MHz
	IF	2		600	MHz
Return Loss	RF		-10		dB
	LO		-8		dB
	IF		-12		dB
LO to RF Leakage				-25	dBm
LO to IF Leakage				-22	dBm
RF to IF Isolation		25			dB
Conversion Loss @ 6 GHz RF input			5		dB
SSB Noise Figure @ 6 GHz			15		dB
IIP3 @ 6 GHz			22		dBm
Input 1 dB compression @ 6 GHz			11		dBm

Max. Ratings

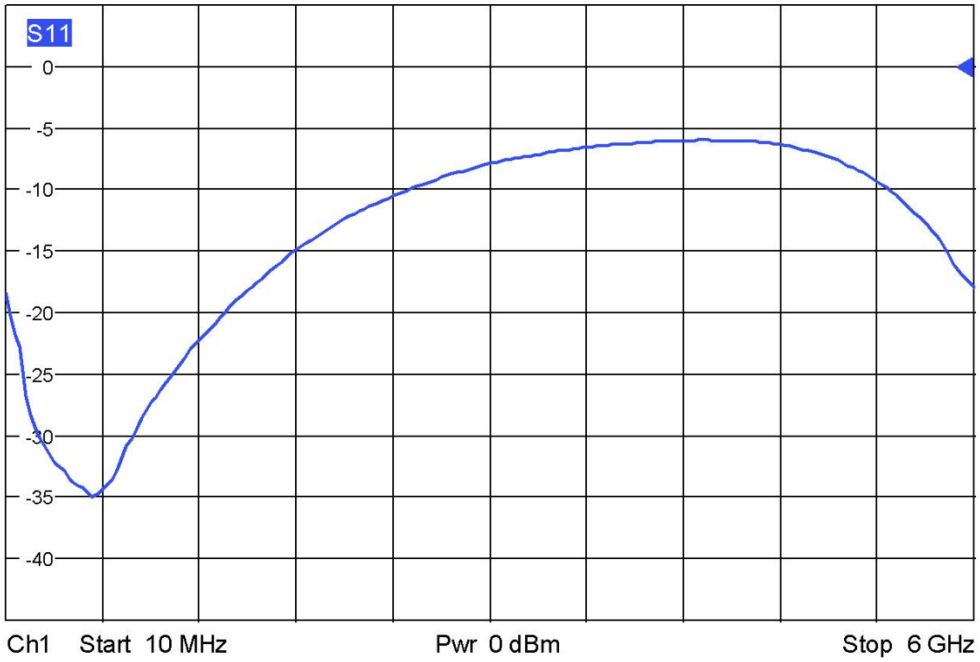
DC Voltage at input or output	25 Volt
RF and IF input power	20 dBm
LO input power	10 dBm
Operating Temperature	-40°C to 85°C

Exceeding any of the limits of this section may lead to permanent damage to the device. Furthermore, extended operation at these maximum ratings may reduce the life of this device.

Typical Characteristics

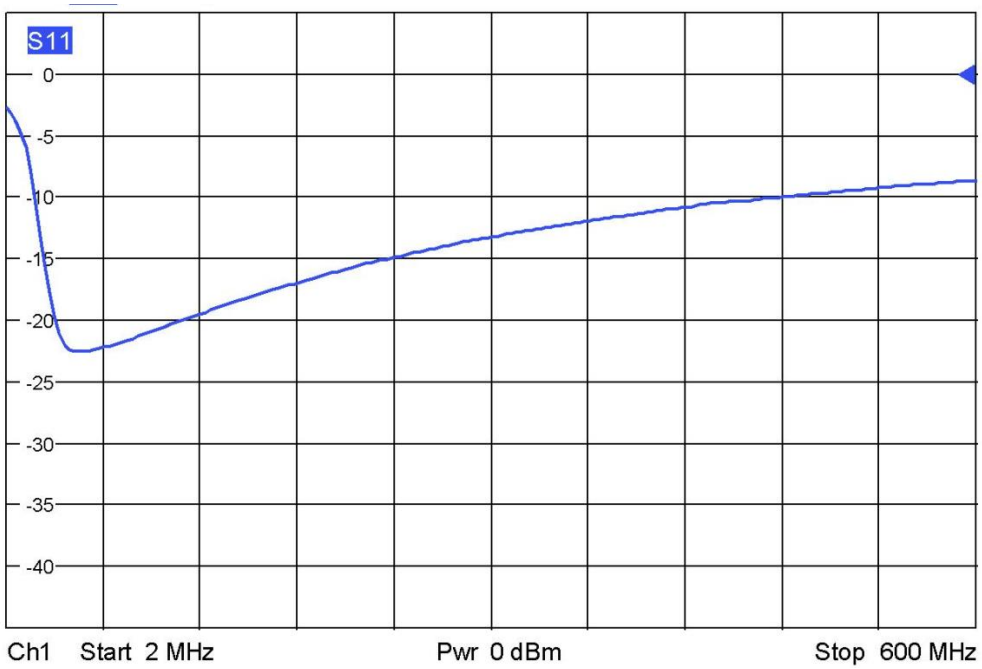


RF Return Loss vs frequency



LO Return Loss vs frequency

MX2 Wide band Mixer



IF Return Loss vs frequency

MATLAB Code Example

```
sys=serial('COM113','BaudRate',1000000,'DataBits',8,'Parity','none','Flow
Control','none','Timeout',1);

fopen(sys);                    % open COM port

MX2_address = 80;

ION_ON(sys,MX2_address);       % turn module ON

fclose(sys);                   % close COM port
```