

Ordering Information

SKU	Description	UPC
100846	Ham It Down 3GHz	0628693723008

Description

Ham It Down is a high-performance downconverter. It is able to convert signals from 1.55 GHz to 3.1GHz into the frequency range of software defined radio devices like our NESDR series and the HackRF. It will function in both transmit and receive modes if available on your SDR.



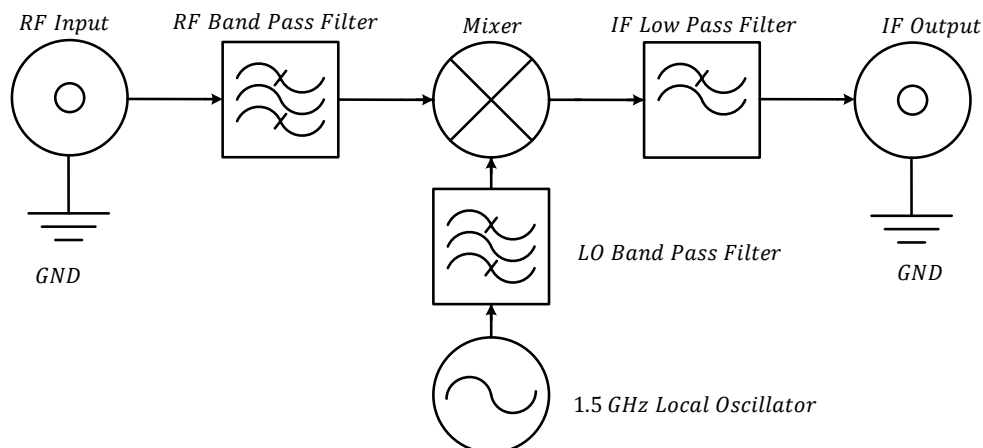
Features

- 50Ω RF mixer block
- Low noise figure
- +4V-5.5V single supply
- 200mA Current draw
- Internal RF, IF and LO filters
- 1.5GHz LO frequency
- Bias Tee

Applications

- Software defined radio
- Frequency range expansion
- Satellite reception
- Frequency downconversion
- Scientific research

Simplified Schematic



Pin Configuration and Functions



Recommended Operating Conditions

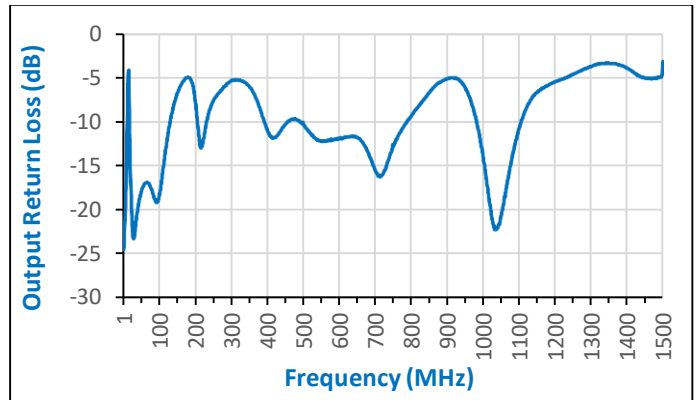
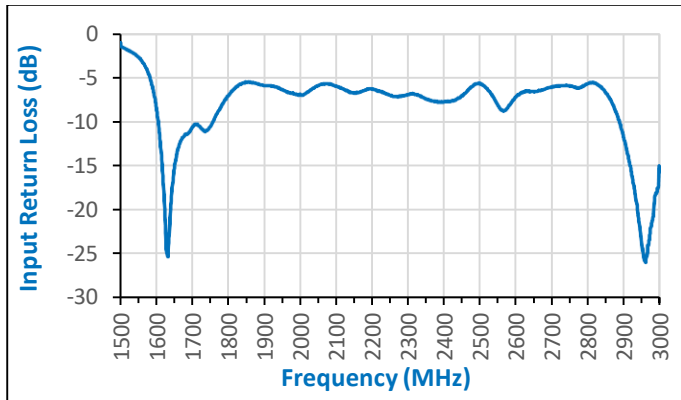
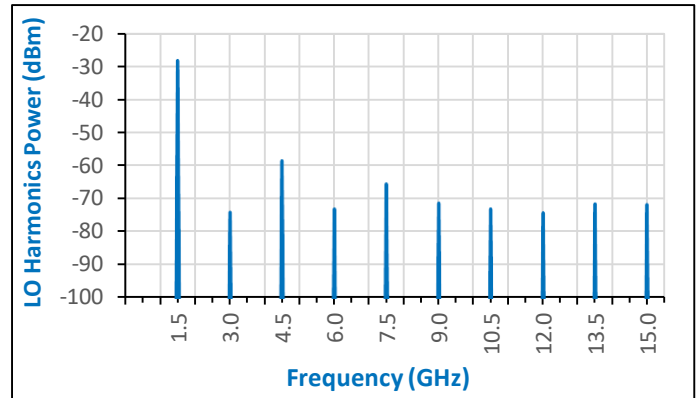
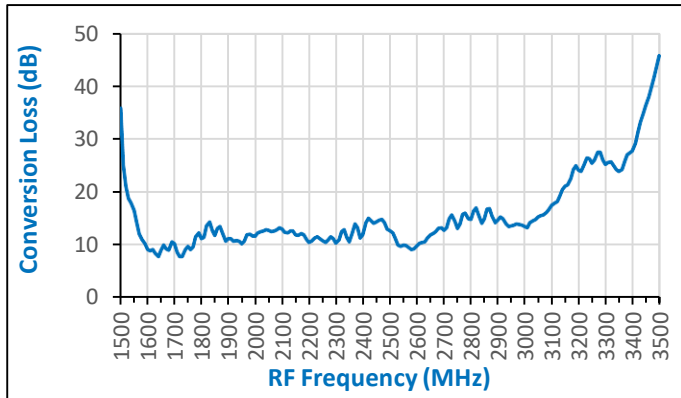
Parameter	Symbol	Min	Typical	Max	Unit
Input Voltage	V_{in}	4.0	5.0	5.5	Volts
Input Power	P_{in}	-	-	10	dBm

Electrical Specifications

Test Conditions unless otherwise specified: $V_{in} = +5$ Vdc, 50 Ohm system.

Parameter	Symbol	Min	Typical	Max	Unit
RF Frequency Range	$f_L - f_H$	1550	-	3100	MHz
IF Frequency Range	$f_L - f_H$	50	-	1600	MHz
Conversion Loss	CL	20	10	7	dB
Input P1dB	$P1dB_{in}$	-5	0	5	0 dBm
LO Power at output SMA	P_{LO}	-31	-28	-25	dBm
LO Frequency	f_{LO}	-	1.5	-	GHz
LO Stability	-	-	1.0	-	PPM
Input Return Loss	S11	-	-7	-5.5	dB
Output Return Loss	S22	-	-10	-5	dB
Supply Current	I_{supply}	180	200	220	mA

Electrical Characteristics Plots



Physical Specifications

Parameter	Value	Unit
Length	95 (3.74)	Millimeter (Inch)
Width	57 (2.24)	Millimeter (Inch)
Height	29 (1.14)	Millimeter (Inch)
Weight	84 (0.19)	Gram (Pound)

Accessories



LaNA WB	Nooelec NESDR SMART v5 Bundle - Premium RTL-SDR	VeGA Barebones - Ultra Low-Noise Variable Gain Amplifier
SKU: 100845	SKU: 100700	SKU: 100826