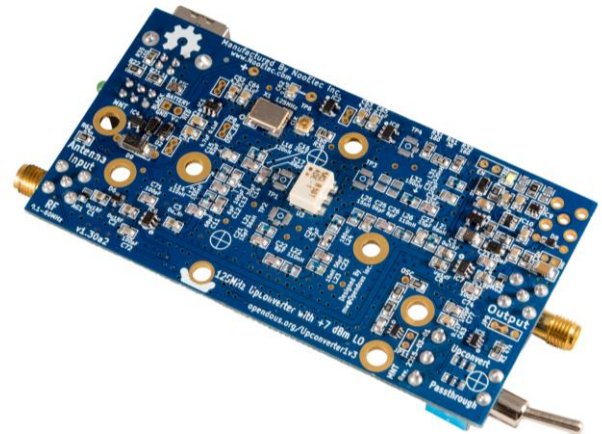


Ordering Information

SKU	Description	UPC
100555	HF Upconverter - Barebones	0616469145581



Description

A high-quality RF (MF, HF) converter for software defined radio devices like our NESDR series and the HackRF. Also works as a panadapter for most radios! It will function in both transmit and receive modes if available on your SDR.

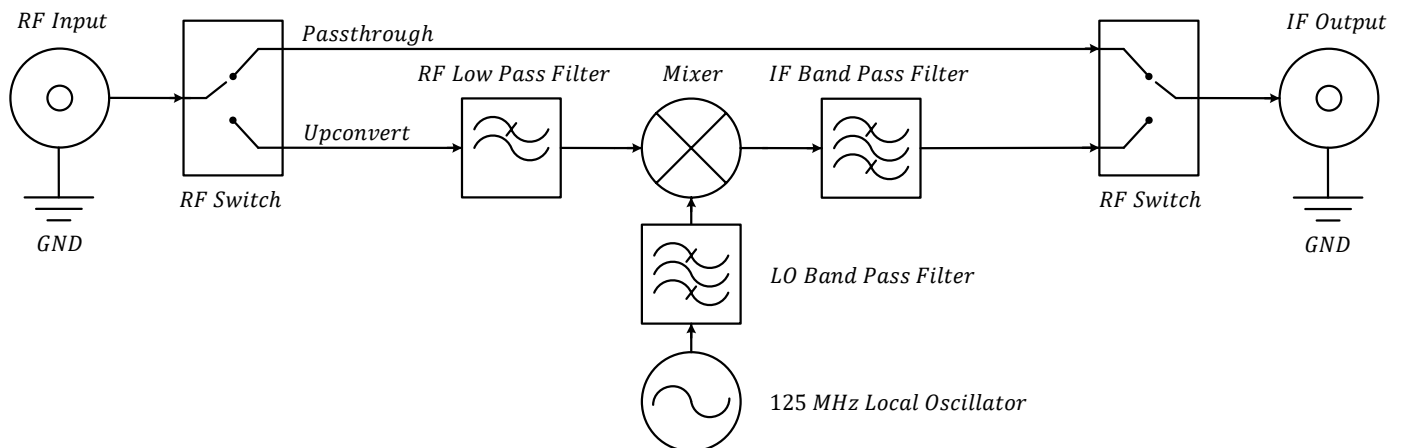
Features

- 50Ω RF mixer block
- +4V-5.5V single supply
- 62mA Current Draw
- Internal RF, IF and LO filters
- 125MHz LO frequency

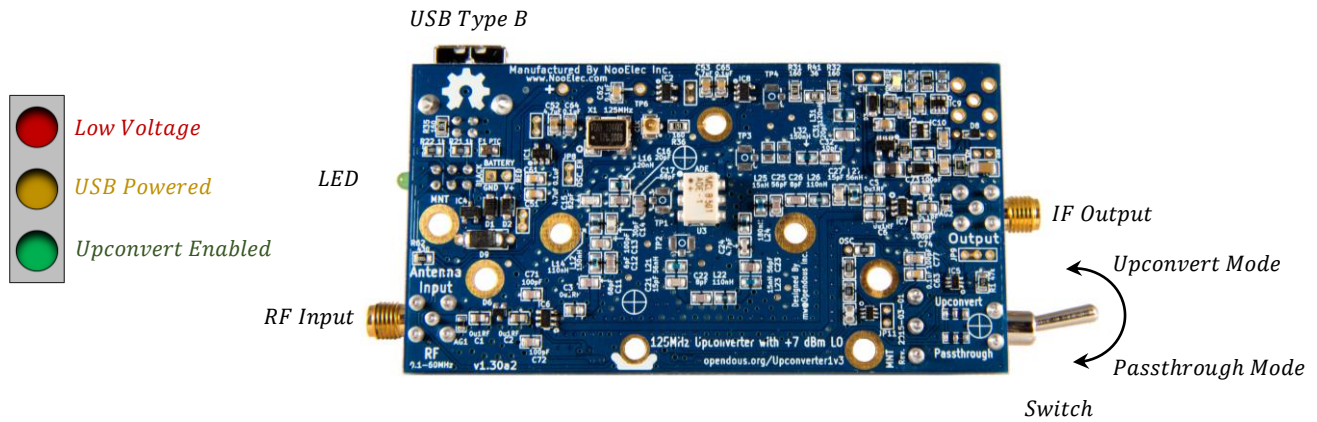
Applications

- Software defined radio
- LF, MF and HF reception
- Upconversion and frequency mixing

Simplified Schematic



Pin Configuration and Functions



Recommended Operating Conditions

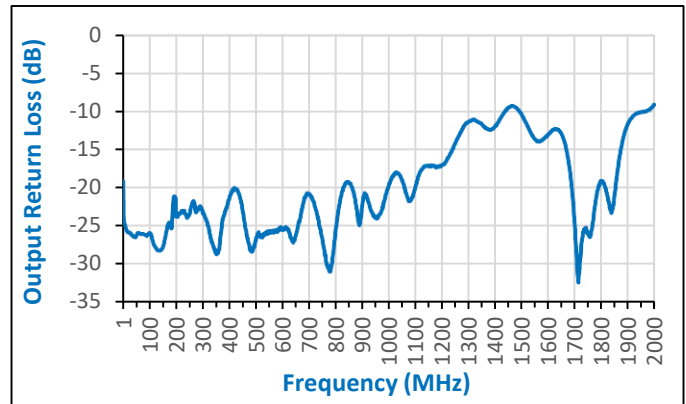
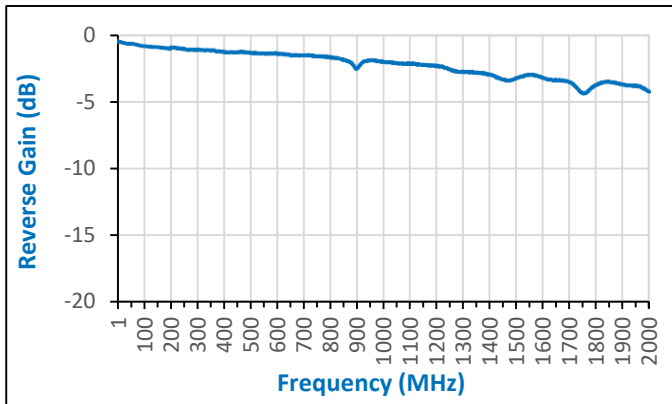
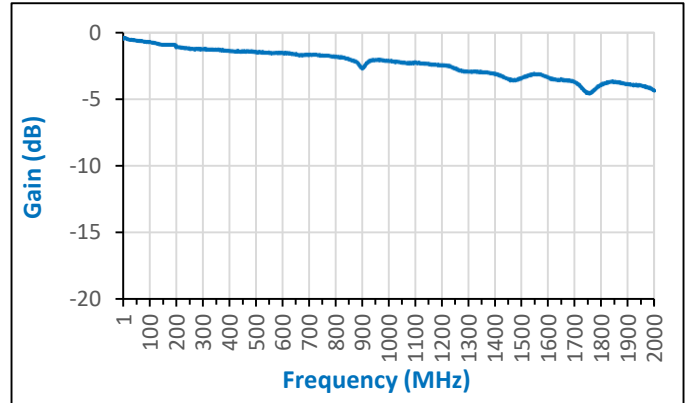
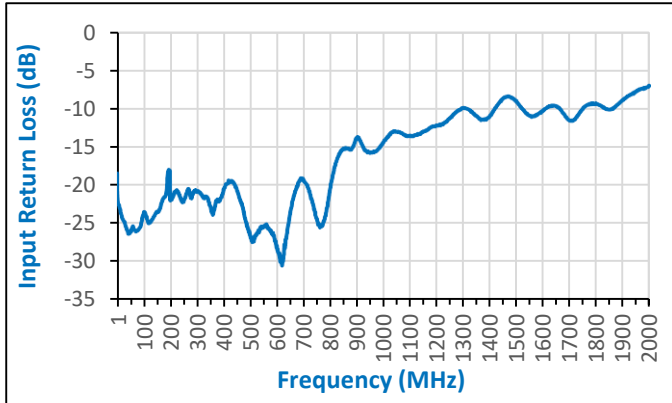
Parameter	Symbol	Min	Typical	Max	Unit
Input Voltage	V_{in}	4.0	5.0	5.5	Volts
Input Power	P_{in}	-	-	1	dBm

Electrical Specifications

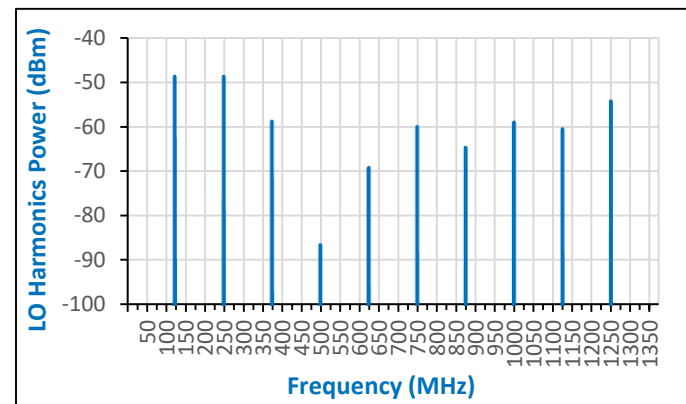
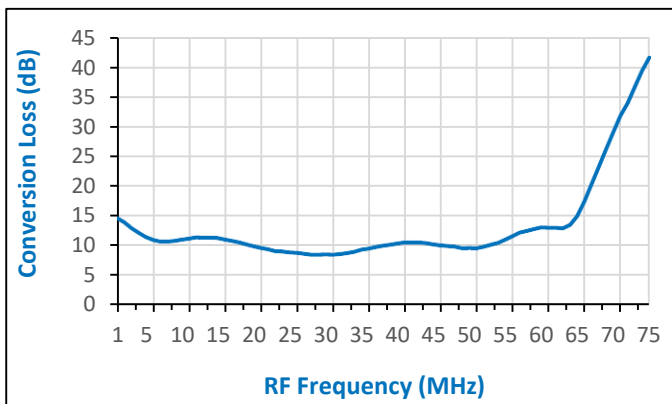
Test Conditions unless otherwise specified: $V_{in} = +5$ Vdc, 50 Ohm system.

Parameter	Symbol	Min	Typical	Max	Unit
Frequency Range in Upconvert Mode	$f_L - f_H$	0.1	-	65	MHz
Frequency Range in Passthrough Mode	$f_L - f_H$	0.030	-	2000	MHz
Conversion Loss	CL	8.5	10	15	dB
LO Power	P_{LO}	-48	-45	-43	dBm
LO Frequency	f_{LO}	124.997	125.000	125.003	MHz
LO Stability	-	-	25	-	PPM
Input Return Loss	S11	-	-	-10	dB
Output Return Loss	S22	-	-	-10	dB
Supply Current in Upconvert Mode	I_{supply}	55	62	75	mA
Supply Current in Passthrough Mode	I_{supply}	3	4	8	mA

Passthrough: Electrical Characteristics Plots (1 MHz to 2000 MHz)



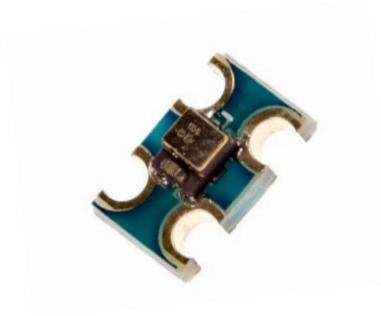
Upconvert: Electrical Characteristics Plots



Physical Specifications

Parameter	Value	Unit
Length	170 (6.69)	Millimeter (Inch)
Width	125 (4.92)	Millimeter (Inch)
Height	24 (0.95)	Millimeter (Inch)
Weight	41 (0.09)	Gram (Pound)

Accessories



Noise Source Upgrade Kit 'B' for Ham It Up v1.2+	125MHz 0.5PPM TCXO Upgrade Module	Aluminum Enclosure Kit for Ham It Up v1.3+
SKU: 100767	SKU: 100756	SKU: 100677