

Ideal for 315/433.92MHz Remote Keyless-Entry Receives.
 FCC approved.
 Phase-Locked loop Feature

**315/434 MHz
 Hybrid
 Receiver**

The ZW3102 is a miniature receiver module that receives On-off keyed (OOK) modulation signal and demodulated to digital signal for the next decoder stage. Local Oscillator is made of PLL structure. The result is excellent performance in a simple-to-use, with a low external component count. The RXB1 is designed specifically for remote-control and wireless security receiver operating at 315/433.92Mhz in the USA under FCC Part 15 regulation.



Absolute Maximum Ratings

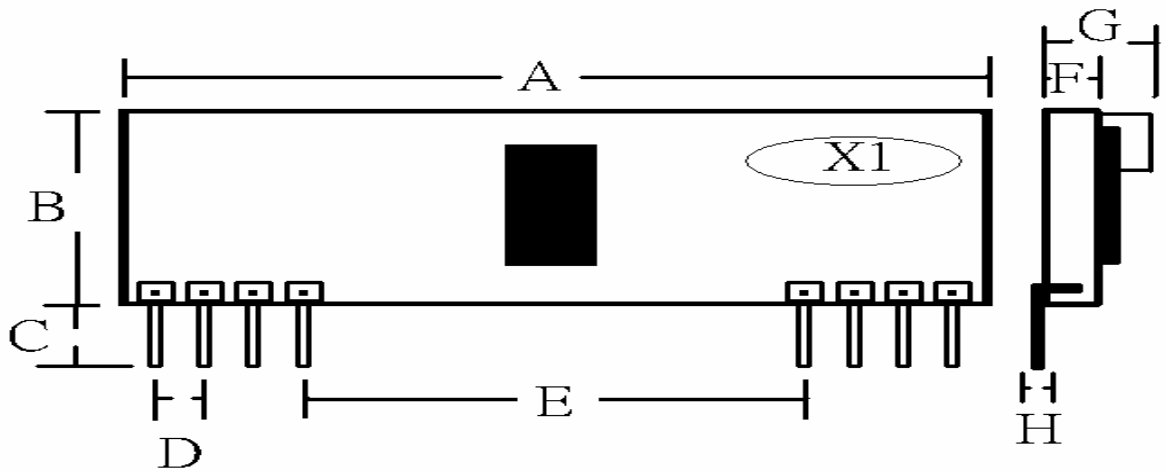
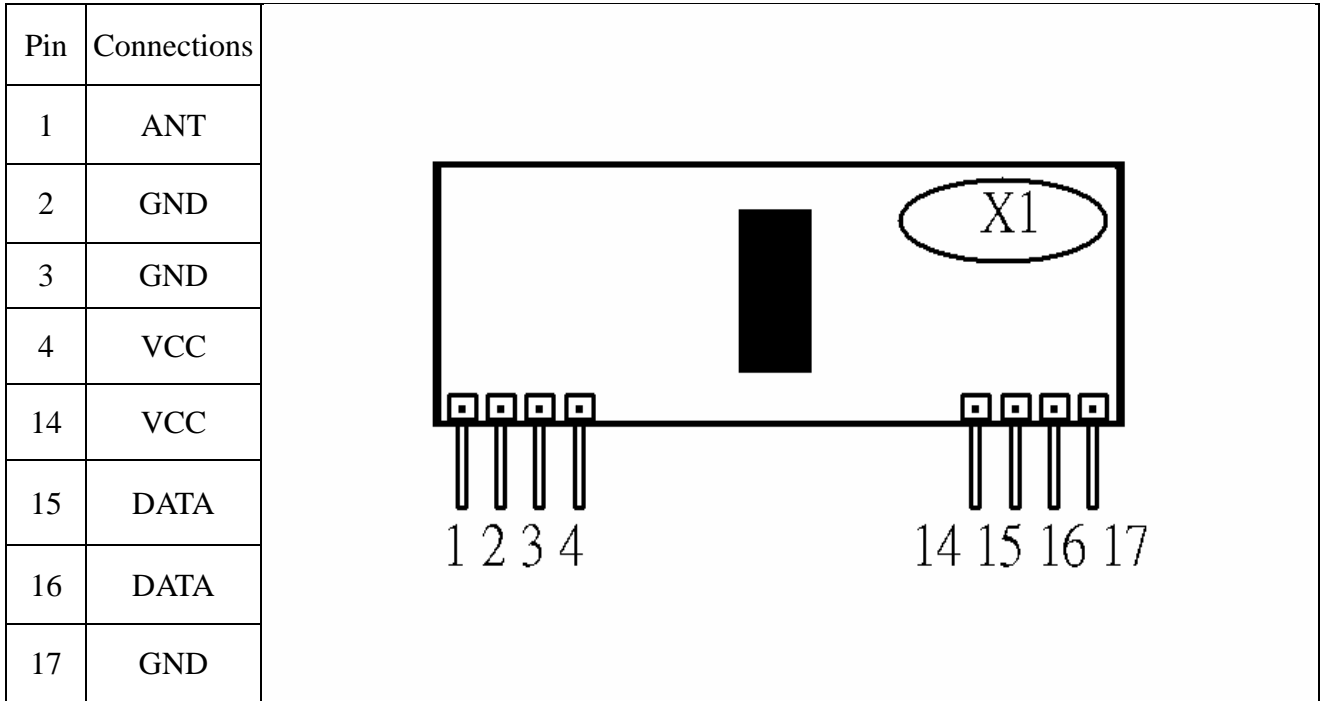
Rating	Value	Units
Power Supply and/or Modulation Input Voltage	5	V
Operating temperature	-40 to +80	

Receiver Characteristics

Parameter	Symbol	Condition	Value			Unit	
			min.	typ.	max.		
Sensitivity	Psens	Vcc=5.0V, TA=27°C, BER=3/100, 2Kbps	315MHz		-105		dBm
			433.92MHz		-104		dBm
ASKOUT logic HIGH	VOH	Iload = 10uA	0.7*Vcc			V	
ASKOUT logic LOW	VOL	Iload = 10uA			0.3*Vcc	V	
Supply current	Icc			3		mA	
Supply voltage Range	Vcc		+4.75	+5	+5.25	V	
Data Rate			300	1K	4~5K	bps	

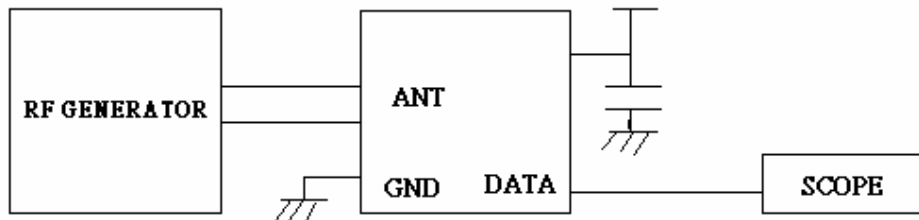
* Data Rate can be increased to 10K by changing components

Pin assignment

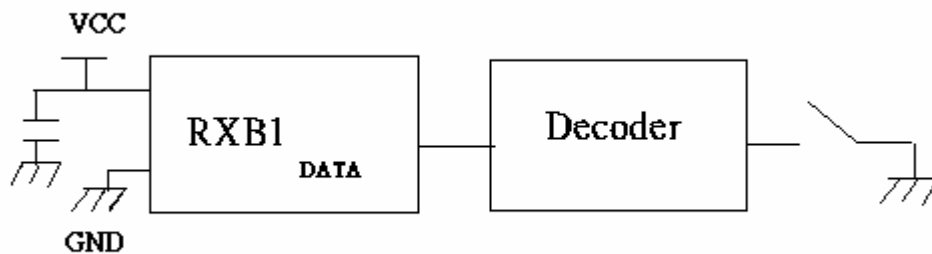


Dimensions	Millimeters	Dimensions	Millimeters
A	43.0 +/- 0.25mm	F	1.2 (MAX)
B	11.5 +/- 0.25mm	G	5.2 +/- 0.15mm
C	5.9 +/- 0.1mm	H	0.095 (MAX)
D	2.54 (MAX)		
E	25.5 +/- 0.05mm		

Typing Test Circuit



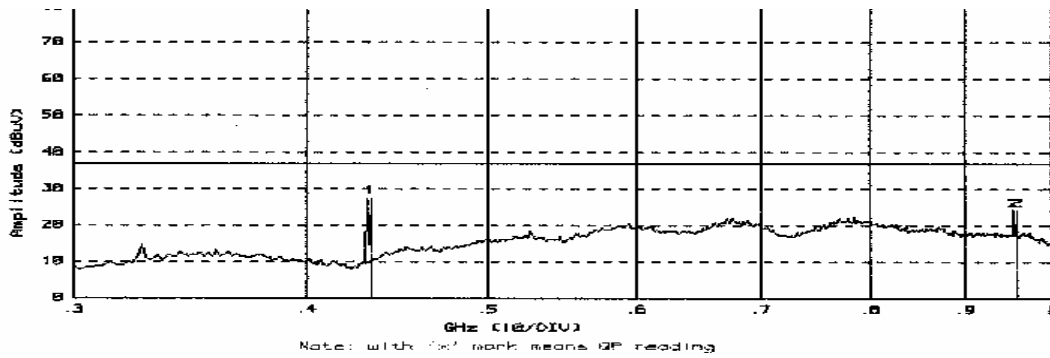
Typical receiver Application



Notes:

1. Decoder : HT12D/F , PTC (2262)
 2. Antenna : Length = 22.6cm for 315MHz ; Length = 17 cm for 433.92MHz.
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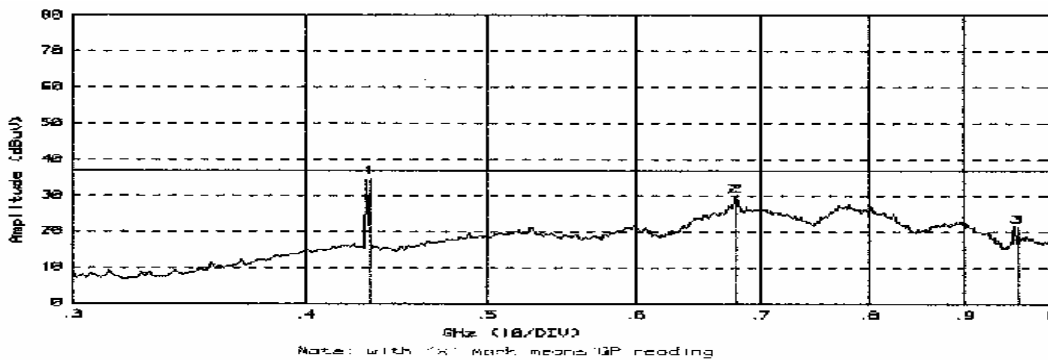
Model :433.92MHz
 Polr.. :Vertical – 3 M
 Tmp(C) :30
 Humid (%) :60



No.	FREQ. <MHz>	RAW DATA <dBuV>	C'Fac <dB>	CORR'd < dBuV/m >	LIMIT	MARGIN <dB>	ANTENNA HEIGHT	TABLE ANGLE
1	433.00	22.2	5.0	27.2	37.0	-9.8	100.0	0.0
2	958.00	11.5	12.5	24.0	37.0	-13.0	100.0	0.0

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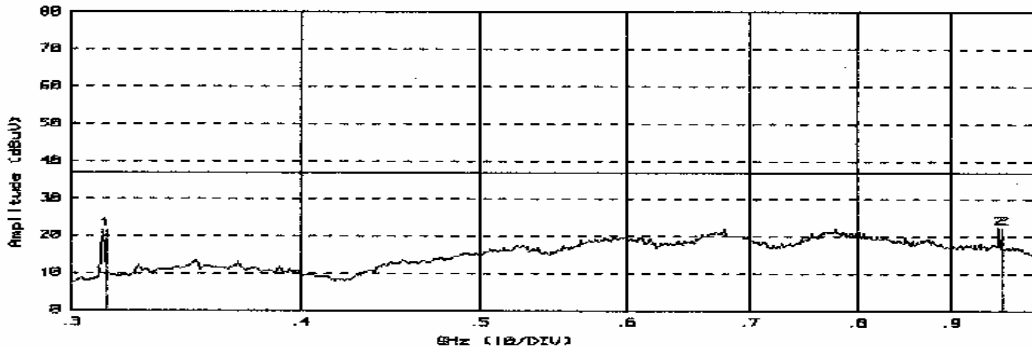
Model :433.92MHz
 Polr.. :Horizontal – 3 M
 Tmp(C) :30
 Humid (%) :60



No.	FREQ. <MHz>	RAW DATA <dBuV>	C'Fac <dB>	CORR'd < dBuV/m >	LIMIT	MARGIN <dB>	ANTENNA HEIGHT	TABLE ANGLE
1	433.00	25.8	8.6	34.4	37.0	-2.6	100.0	0.0
2	680.00	11.0	18.7	29.7	37.0	-7.3	100.0	0.0
3	960.00	11.8	9.6	21.4	37.0	-15.6	100.0	0.0

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Model :315MHz
 Polr.. :Vertical – 3 M
 Tmp(C) :30
 Humid (%) :60

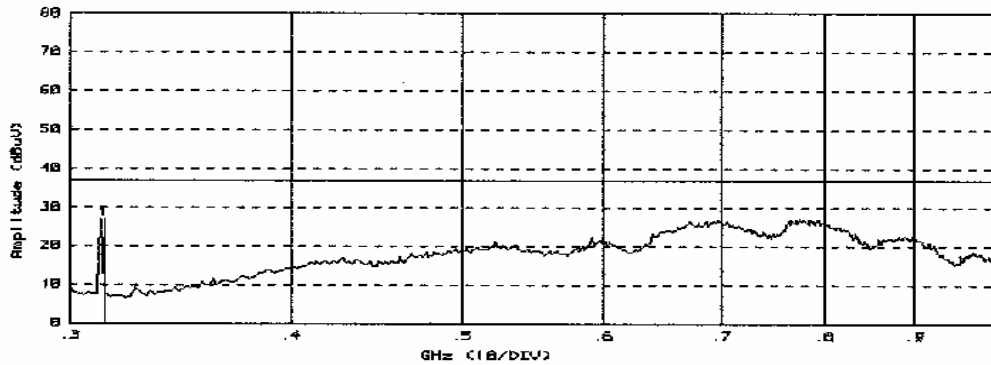


Note: with 'x' mark means QP reading

No.	FREQ. <MHz>	RAW DATA <dBuV>	C'Fac <dB>	CORR'd < dBuV/m >	LIMIT >	MARGIN <dB>	ANTENNA HEIGHT	TABLE ANGLE
1	314.00	17.0	4.4	21.4	37.0	-15.6	100.0	0.0
2	958.00	9.6	12.5	22.1	37.0	-14.9	100.0	0.0

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Model :315MHz
 Polr.. :Horizontal – 3 M
 Tmp(C) :30
 Humid (%) :60

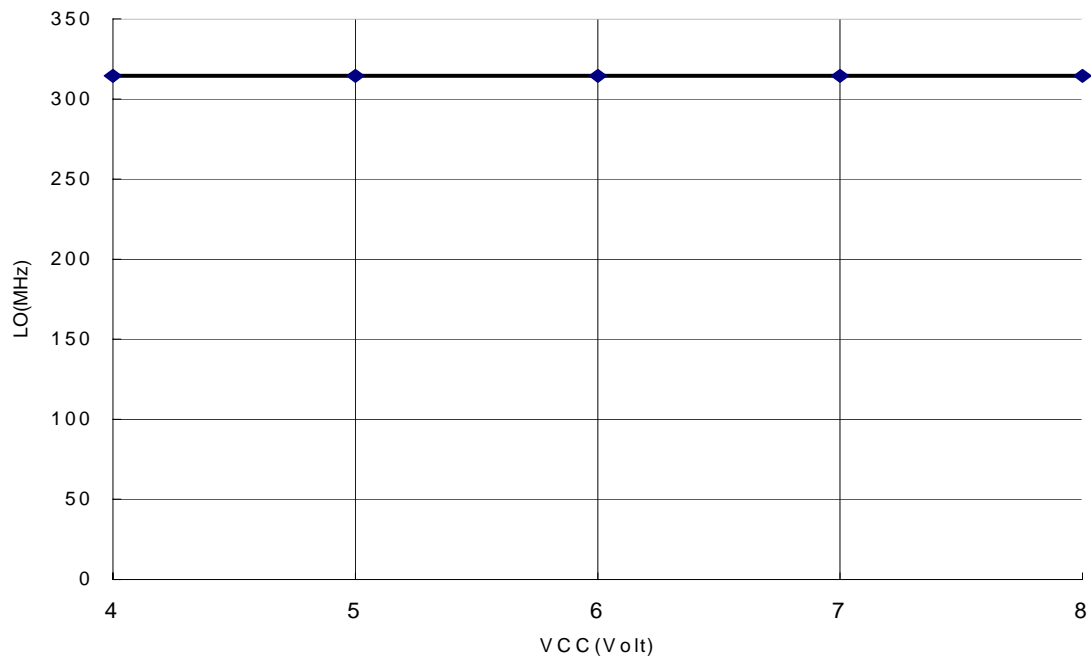


Note: with 'x' mark means QP reading

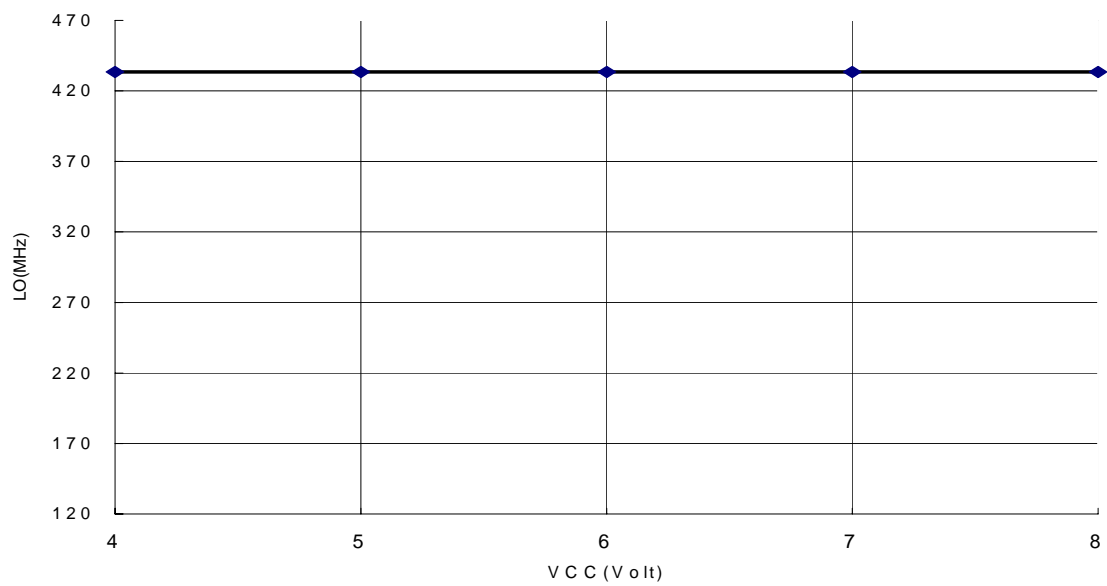
No.	FREQ. <MHz>	RAW DATA <dBuV>	C'Fac <dB>	CORR'd < dBuV/m >	LIMIT >	MARGIN <dB>	ANTENNA HEIGHT	TABLE ANGLE
1	314.00	26.2	.5	26.7	37.0	-10.3	100.0	0.0

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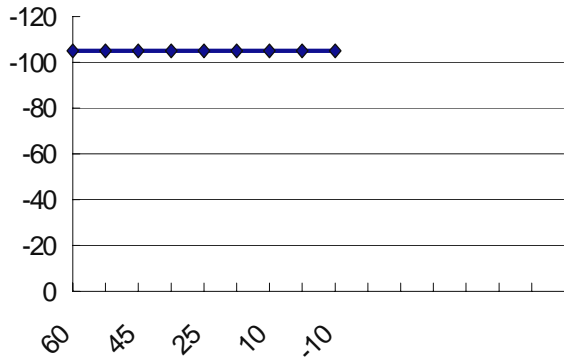
RXB1 315 LO v.s. Vcc



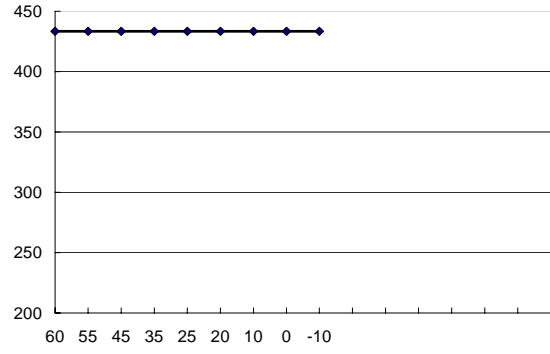
RXB1 433.92 LO v.s. Vcc



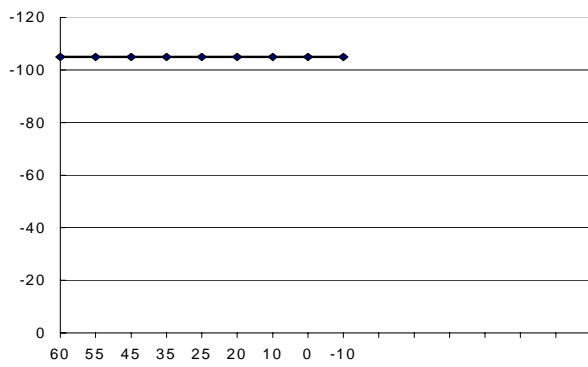
Sensitivity -- 433.92MHz



LO -- 433.92MHz



Sensitivity -- 315MHz



LO -- 315MHz

