DESCRIPTION

The RX3310A is a fully integrated, amplitude-shift-keying (ASK) modulation, single chip receiver. It is designed to operate in a variety of low power radio applications. All popular radio frequencies from 250 MHz to 450 MHz may be supported by simply choosing the appropriate external components. Particular emphasis has been placed on low current consumption.

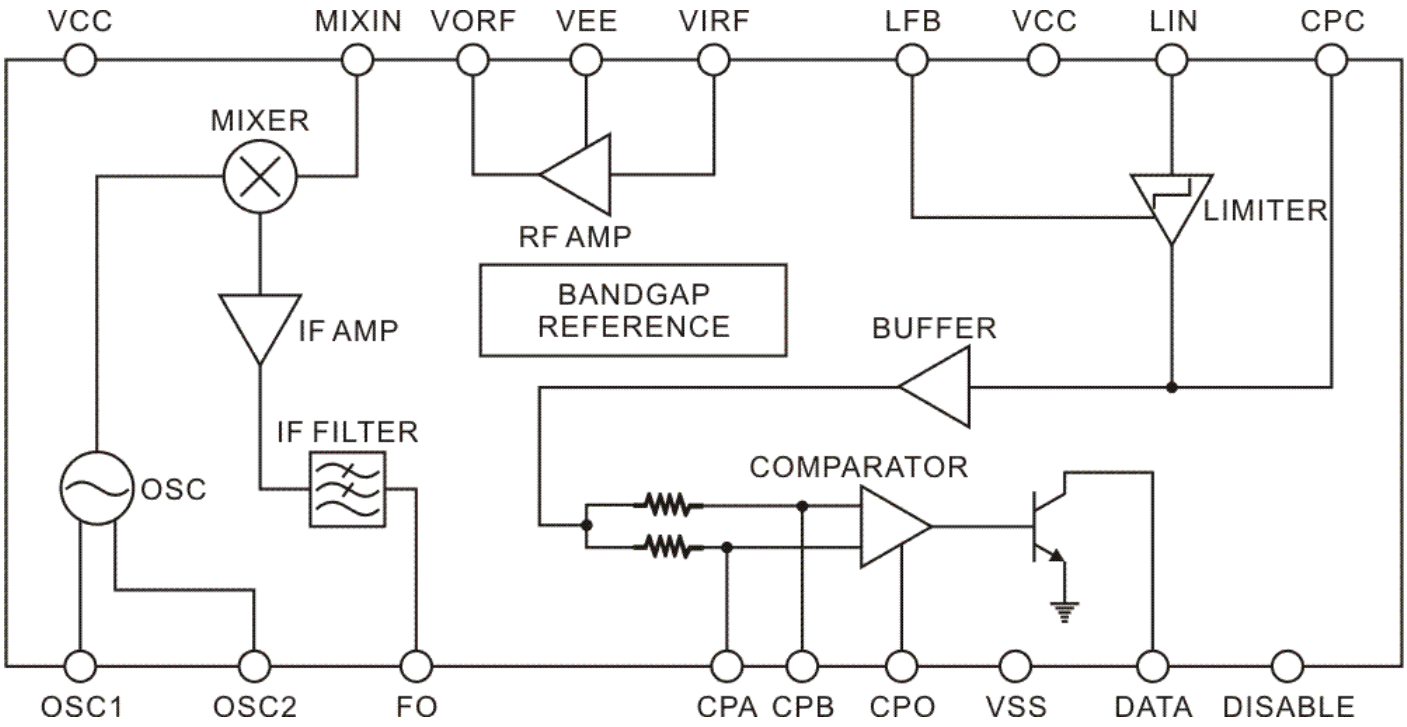
FEATURES

- Wide frequency range: 250 MHz to 450 MHz
- High sensitivity
- Low power consumption
- High integration level
- SOP 18L package or SSOP 20L (150 mil) package

APPLICATIONS

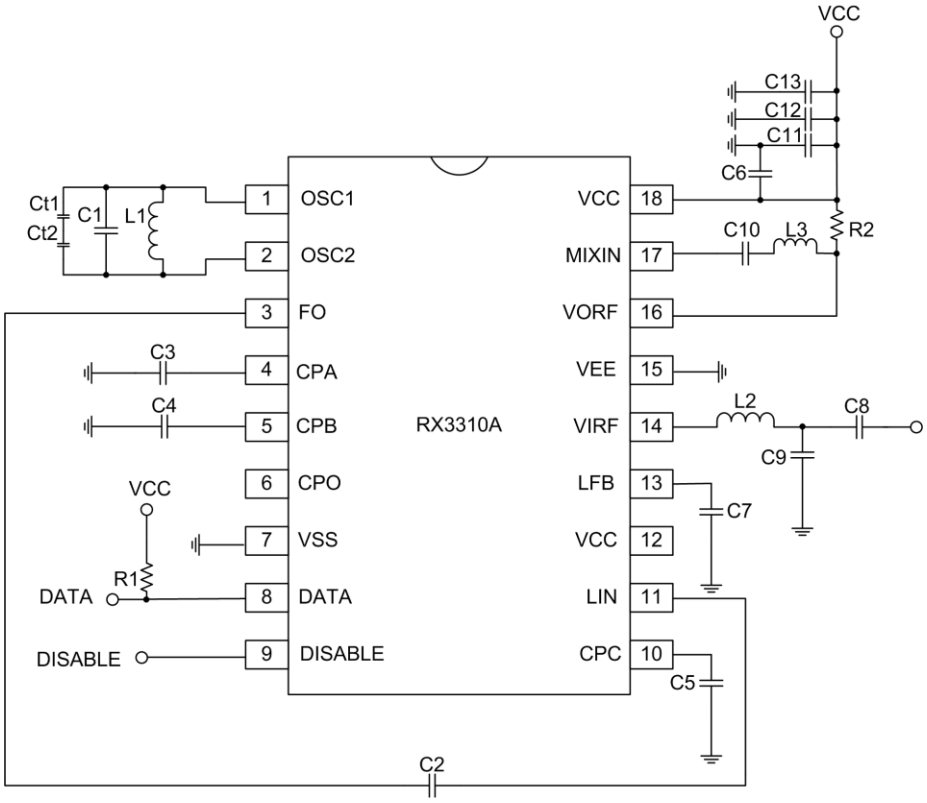
- Remote control systems
- Car alarm and other security systems
- Baby finder, wireless doorbell, wireless toys

BLOCK DIAGRAM

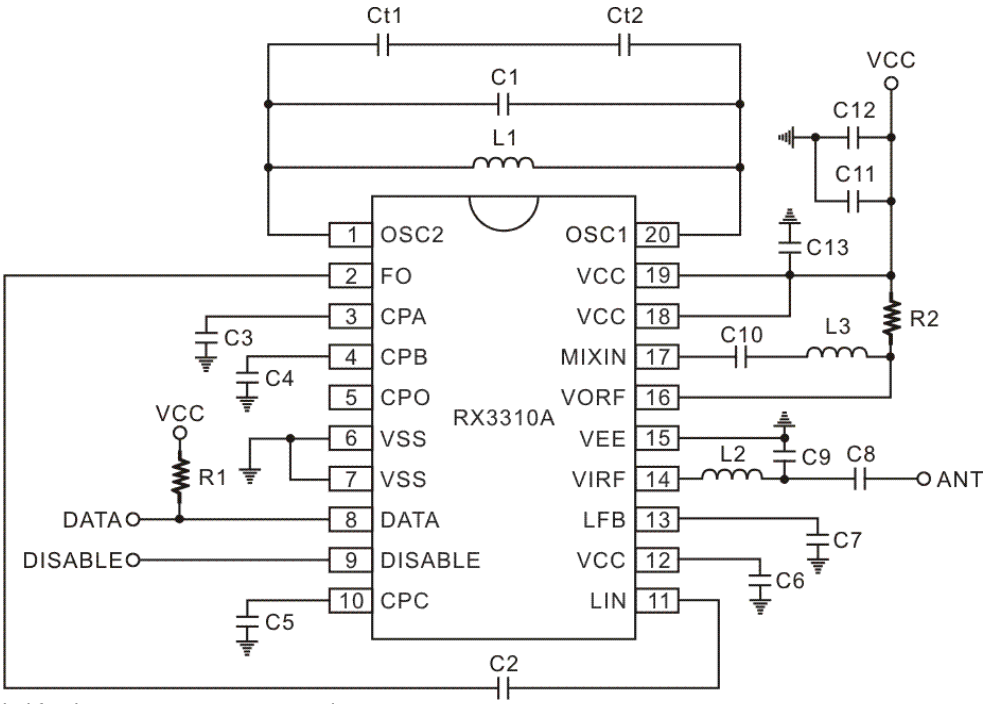


APPLICATION CIRCUIT

18 PINS, SOP



20 PINS, SSOP



Note: Ct1, Ct2 are added for the temperature compensation. Not necessary.

EXTERNAL COMPONENTS

Component	Frequency Band (MHz)		Unit	Tolerance	Remark
	315	434			
C1	8.2	6.8	pF	±0.5pF	TC = NPO
C2	100	100	pF	±5%	TC = NPO
C3	560	560	pF	±10%	TC = X7R
C4	1	1	µF	±10%	TC = Y5V
C5	1	1	nF	±10%	TC = X7R
C6	10	10	nF	±10%	TC = X7R
C7	10	10	nF	±10%	TC =X7R
C8	100	100	pF	±0.25pF	TC = NPO
C9	4.7	8.2	pF	±0.25pF	TC = NPO
C10	100	120	pF	±5%	TC = NPO
C11	10	10	nF	±10%	TC = X7R
C12	3.3	3.3	µF	±10%	TC = Y5V
C13	470	470	pF	±10%	TC = X7R
Ct1					
Ct2					
R1	100	100	KΩ	±5%	TC = ±200 ppm
R2	680	680	Ω	±5%	TC = ±200 ppm
L1	2.5	1.5	T		tunable
L2	100	56	nH		
L3	100	68	nH		

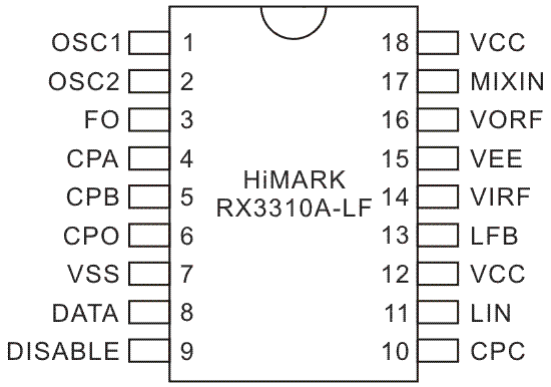
Note: All components are SMD 0603 type.

ORDER INFORMATION

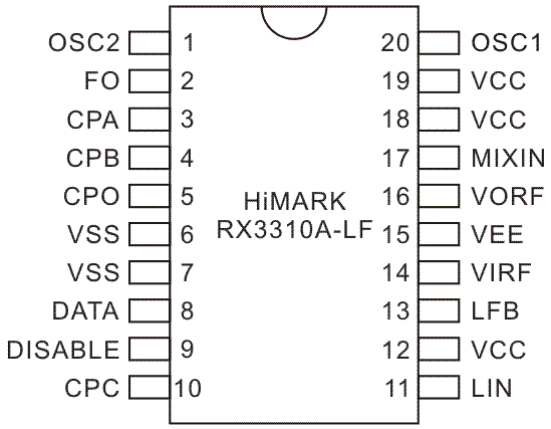
Valid Part Number	Package Type	Top Code
RX3310A	18 Pins, SOP, 300mil	HiMARK RX3310A-LF
RX3310A	20 Pins, SSOP, 150mil	HiMARK RX3310A-LF

PIN CONFIGURATION

18 PINS, SOP



20 PNS, SSOP



PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.	
			18-pin SOP	20-pin SSOP
OSC1	IO	Oscillator tank connection	1	20
OSC2	IO	Oscillator tank connection	2	1
FO	O	IF filter output	3	2
CPA	I	Comparator input A	4	3
CPB	I	Comparator input B	5	4
CPO	I	Comparator offset adjustment	6	5
VSS	GND	Ground	7	6, 7
DATA	O	Data output	8	8
DISABLE	I	Disable input. See Electrical Characteristics (V_{CC} = 5.0 V) on page 6	9	9
CPC	I	Comparator input C	10	10
LIN	I	Limiter input	11	11
VCC	POWER	Positive supply voltage	12	12
LFB	IO	Limiter feedback B	13	13
VIRF	I	RF amplifier input (requires external ac decoupling capacitor)	14	14
VEE	GND	Ground for RF amplifier	15	15
VORF	O	RF amplifier output	16	16
MIXIN	I	Mixer input (requires external ac decoupling capacitor)	17	17
VCC	POWER	Positive supply voltage	18	18, 19

IMPORTANT NOTICE

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