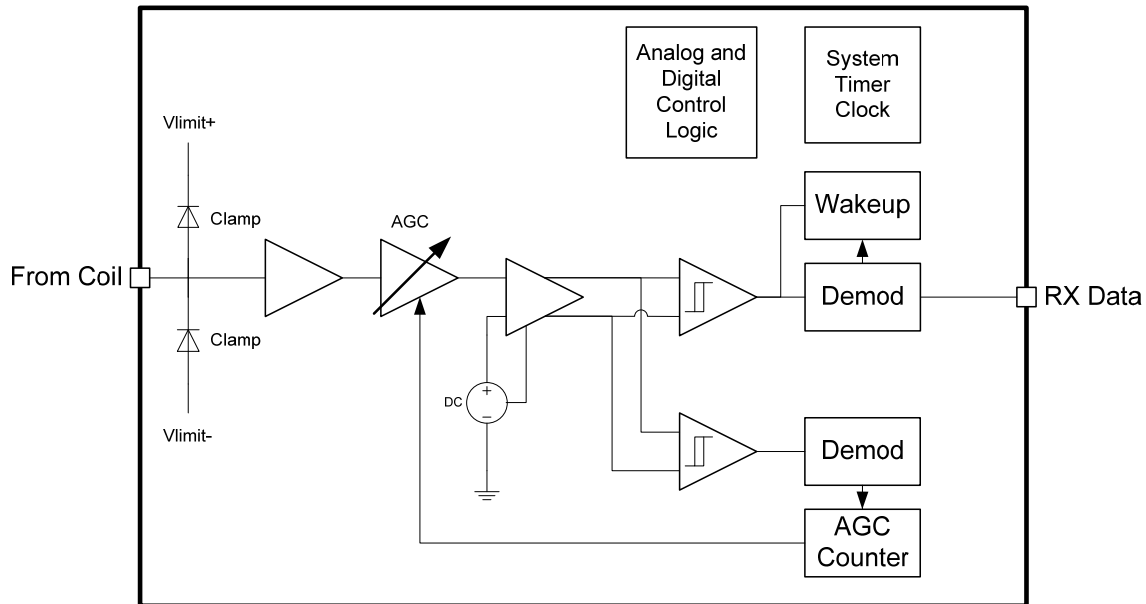


Block Diagram



Typical Applications

- Remote Keyless Entry
- Sensor Networks
- Wireless Telemetry
- Integration with Microcontroller

Key Features

- Ultra-Low Current
 - ❖ 1nA in Standby
 - ❖ 200nA with System Timer On
 - ❖ 6µA in 4kHz Receive
- 2.5mVp-p Minimum Sensitivity
- 2.5mVp-p to 250mVp-p AGC Range
- Input Protection
- Low Cost CMOS Process

IP Block Overview

The TRFS15008 IP is a fully integrated 125kHz wake up receiver requiring only bypass capacitors and one external pick-up coil to operate. It has been designed for lowest current consumption and low cost. It features industry-leading sensitivity of 2.5mVp-p and best-in-class standby current and 4kHz

receive current. Its inputs are protected against large input signal that can occur when the transmitter is in close proximity to the receiver coil. The TRFS15008 IP has been designed on a low cost CMOS technology. See the TRFS25007Low Power ASK/FSK Transmitter IP core for a matching transmitter designed on the same process technology

IP Block Performance Summary

Specification	Conditions	MIN	TYP	MAX	Units
Temperature Range		-40	25	100	°C
V _{BAT}		1.8		3.6	V
Supply Current	Standby		0.001		μA
	Pre-Wake (Protocol A)		3		
	Pre-Wake (Protocol B)		6		
	Wake		6		
RX Data Rate			4		kHz
RX sensitivity		2.5	1		mVp-p
Input AGC range	No damage up to 2.5Vp-p	2.5		250	mVp-p

Known Limitations/Issues

Revision History

Revision #	Date	Notes
V1.0	19-Dec-2008	Initial Draft
V1.1	14-Jan-2009	Initial Customer Release
V1.2	19-Jan-2009	Added part number in Text