B.B.S. Electronics

Remote Control Modules

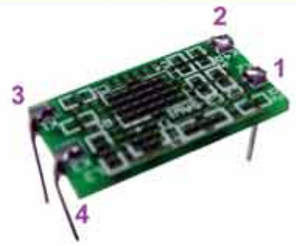
RF transceiver

TX-ASK-315-A . RX-ASK-315-A TX-ASK-418-A . RX-ASK-418-A TX-ASK-434-A . RX-ASK-434-A

TX-ASK SERIES

GENERAL DESCRIPTION:

The TX series is an advanced ultra-compact SAW-based UHF RF transmitter module. When paired with a RX Series receiver, the units create a highly reliable wireless link capable of transferring digital data at distances in excess of ~50m. The TX Series does not require production tuning.

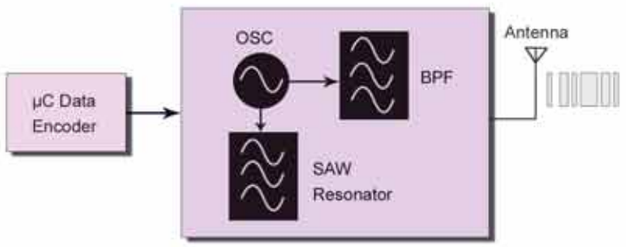


PIN DESCRIPTION:

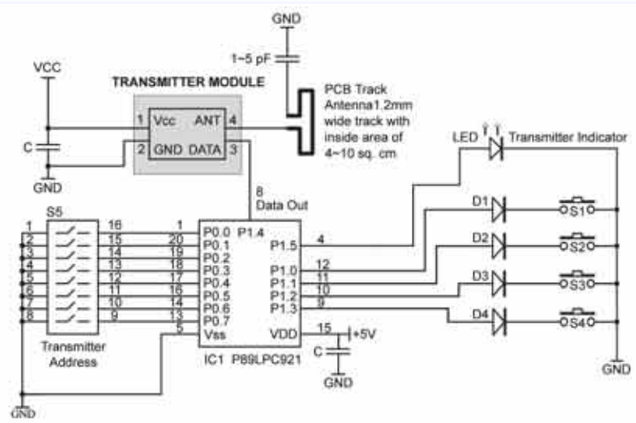
1. Vcc - Power Supply
2. GND – Ground
3. IN – Modulation Data Input
4. EA – External Antenna (PCB antenna data available upon request)

FEATURES:

- High Frequency Stability With SAW Resonator
- Small Form Factor DIP-Style for Space Saving
- No production tuning or setup
- Low power consumption
- Wide supply range (5 ~12 VDC)
- Encapsulated in black epoxy



Block Diagram



Schematic Diagram of a Typical Transmitter Application

SPECIFICATIONS

TX-ASK SERIES		RX-ASK SERIES
Dimension		
18.3mm x 10.02mm		14.5mm x 38.1mm
Operating DC Voltage, Vcc		
2.0V < Vcc < 14.5V		4.5V < Vcc < 5.5V
Operating DC Current, Icc		
typ. 1.6mA		typ. 6mA
Standby DC Current, Istby		
< 3µA		-
Max Data Rate		
4kHz		-
Data IN/OUT Voltage, Vdata		
2 < Vdata =< Vcc		Vcc - 0.5V =< Vdata =< Vcc

RF Range

typ.>50m (based on receiver module antenna 10" & transmitter on PCB loop antenna)

Transmit Frequency

typ. 433.92MHz (315MHz, 403.55MHz and 303.825MHz can be made upon request)

Modulation Technique

Amplitude Shift Keying (ASK)

Radiation Power

< 10mW

Oscillator

SAW Resonator

Application Examples

Lighting Remote Control

Garage, Door, or Gate Remote Control

Wireless security, alarm control

Remote Sensor Data Logger (SCADA)

RX-ASK SERIES

GENERAL DESCRIPTION:

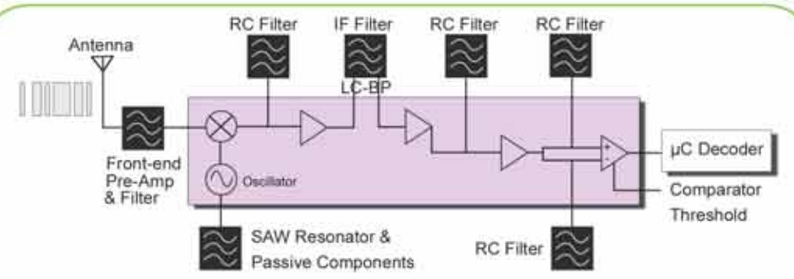
This is fully integrated small form factor RF receiver, primarily intended for use in UHF systems employing direct AM Return-to-Zero (RZ) Amplitude Shift Keying (ASK) modulation. A SAW resonator is used to achieve a highly stabilized local oscillator, which requires no frequency adjustment.

FEATURES:

- High Frequency Stability With SAW Resonator
- Hybric Small Form Factor for Space Saving
- High sensitivity
- Stable Oscillator with external SAW Resonator
- Low power consumption
- Superheterodyne architecture
- Encapsulated in black epoxy

PIN DESCRIPTION:

1. Vcc	6. NC	11. Gnd
2. Gnd	7. Gnd	12. Gnd
3. RF In	8. NC	13. Gnd
4. NC	9. NC	14. Data Out
5. NC	10. NC	15. Vcc



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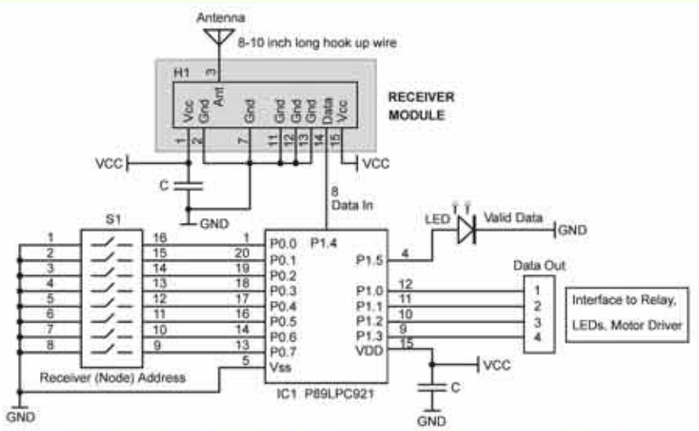
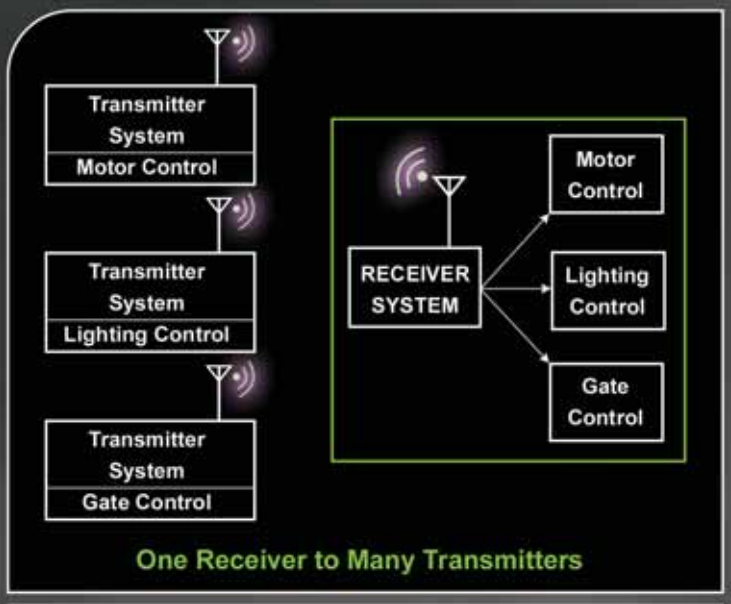


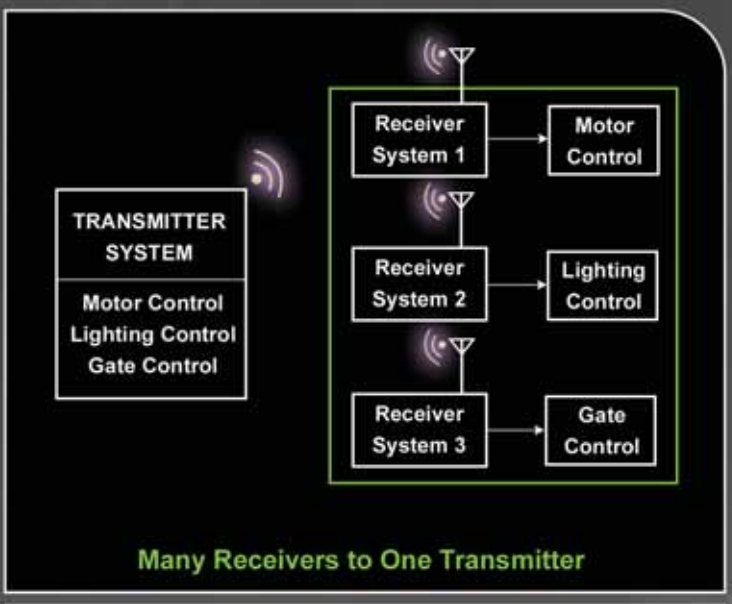
Schematic Diagram of a Typical Receiver Application

Note: The schematic diagrams above are for illustration only. BBS Electronics disclaim any liabilities arise as a result of losses, damages in using part of/whole of the schematic diagrams in any applications.

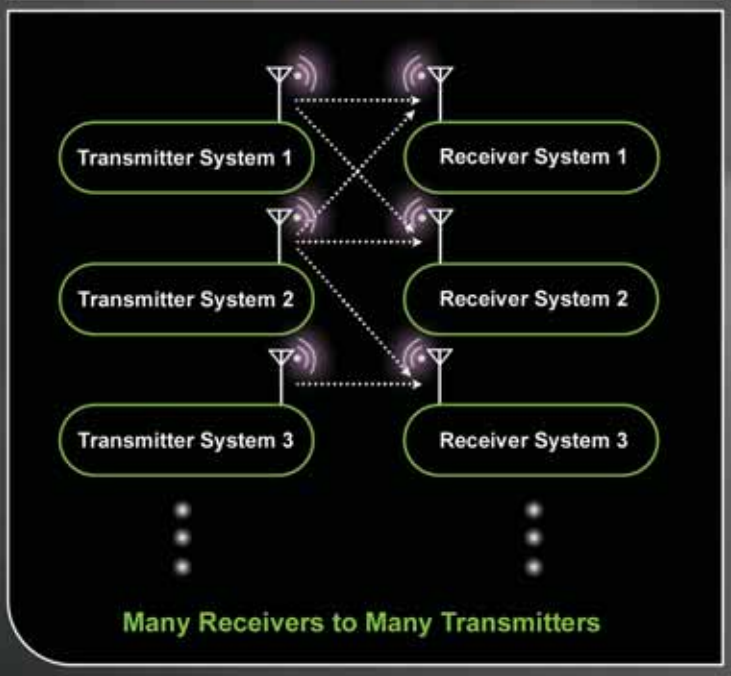
control topology



One Receiver to Many Transmitters



Many Receivers to One Transmitter

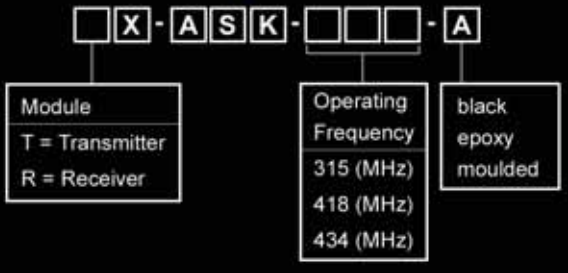


Many Receivers to Many Transmitters

Recommended Frequency:

- 433.92MHz for Australia, Iran, India, Singapore, Malaysia, Thailand
- 303MHz for Australia, Malaysia

Part Number Ordering Scheme:



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