



APPLICATION NOTE 1774

## Remote Keyless Entry Systems Overview

*Abstract: Over 70% of the vehicles made today come with a remote keyless entry (RKE) system either standard or as an option. Remote keyless systems consist of a key fob transmitter and a receiver inside the vehicle. They most commonly use a frequency of 315MHz in the U.S. and Japan, and 433.92MHz in Europe. A block diagram is presented*

### About Remote Keyless Entry (RKE) Systems

Over 70% of the vehicles made today come with a remote keyless entry (RKE) system either standard or as an option. RKE systems are also a high volume after-market accessory. Most remote keyless entry systems alarm the vehicle against theft and lock and unlock the doors and trunk. Some include remote start and car finder functions.

Remote keyless systems consist of a key fob transmitter and a receiver inside the vehicle. They most commonly use a frequency of 315MHz in the the U.S. and Japan, and 433.92MHz in Europe. Europe has also opened up the 868MHz band to accommodate the growing demand for remote keyless entry systems.

The key challenges for most remote keyless entry designs are achieving low power consumption in both the RKE transmitter and receiver, while achieving good range and reliability for the RKE system. These are discussed in detail in "[Designing Remote Keyless Entry \(RKE\) Systems](#)."

### More...

- [Designing Remote Keyless Entry \(RKE\) Systems](#)
- [How to Modify an Existing Design from a TDA5200 or TDA5201 to a MAX1470 Superheterodyne Receiver](#)
- [How to Choose a Quartz Crystal Oscillator for the MAX1470 Superheterodyne Receiver](#)
- [How to Tune and Antenna Match the MAX1470 Circuit](#)
- [Where To Go for Regulations Concerning Short-Range Devices \(SRD\)](#)

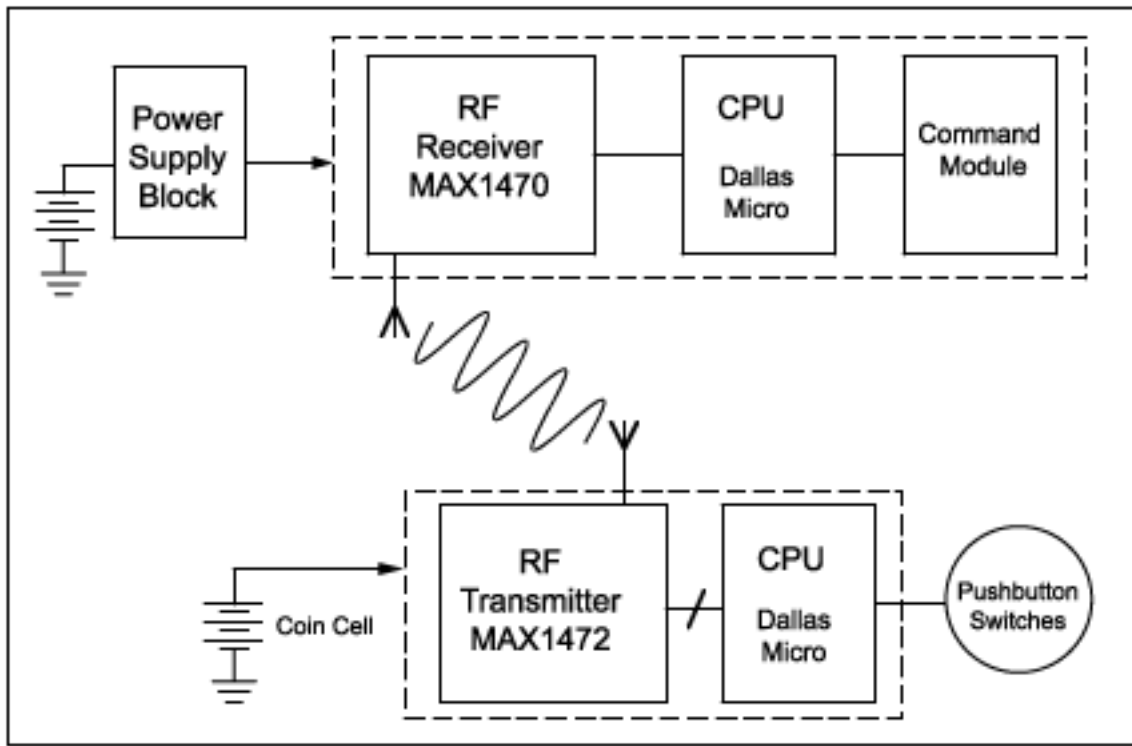


Figure 1. Block diagram for remote keyless entry (RKE) systems.

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