



1055 Tierra Del Rey  
Chula Vista, CA91910

## Operational Description

PAGE: 1 OF 5

DATE: 9/21/12

## REVISIONS

**REMARKS:**



## INDEX

1	INTRODUCTION .....	3
2	BLOCK DIAGRAM .....	4
3	MODULATION .....	5
4	FREQUENCY OF OPERATION .....	5
5	TIMING .....	5
6	NETWORKING .....	5
7	OUTPUT POWER .....	5
8	ANTENNA .....	5



## 1 INTRODUCTION

This document will describe the operation of the 2 Way LC remote. The remote operates mainly as a RF remote.

The document is divided into the following sections:

- a) Block Diagram
- b) Modulation
- c) Timing
- d) Networking
- e) Frequency of operation
- f) Output Power
- g) Antenna

### Abbreviations

RF IC Radio frequency integrated circuit.

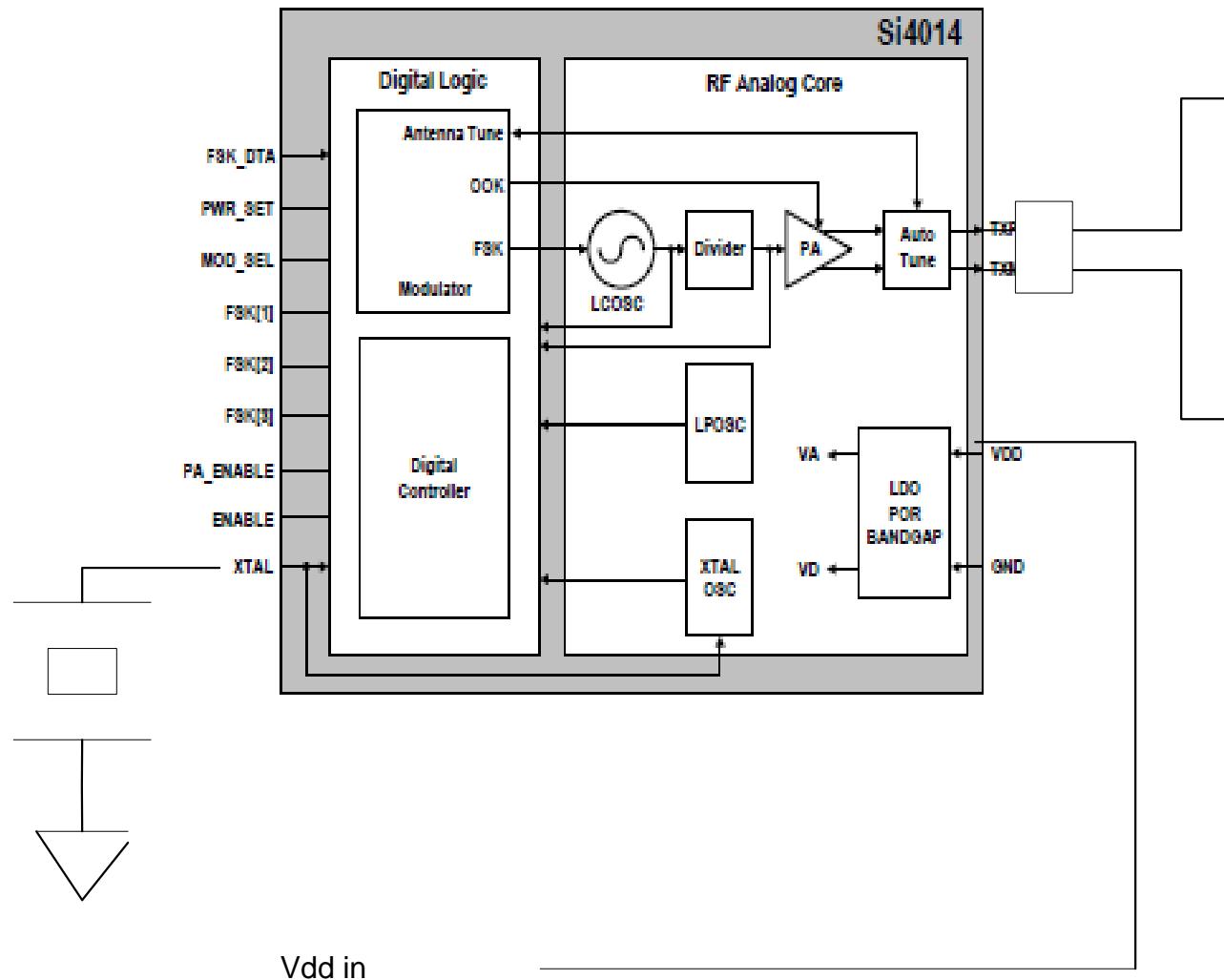
IC Integrated Circuit.

TX transmitter

RCVR receiver.

## 2 BLOCK DIAGRAM

The following is a Block Diagram for the remote:



The block diagram has two sections the BB and the RF.

The BB consists of a small ASIC that is used to set up registers and control words. These are used for timing purposes. The BB shares the same reference as the RF, which is a 10MHz crystal.

The RF section consists of the transmitter in the RFIC, the exception of the 10 MHz crystal, internal matching networks, external filter and antenna.

User does not have access to adjusting the frequency, power levels. This is done at the factory.



## **3 MODULATION**

There are two modulation schemes used in this system: OOK, the other is Infrared.

## **4 FREQUENCY OF OPERATION**

The frequency of operation is from 369.5, 375.3, 388.3, 394.3 MHz. It will operate at only one frequency at a time. It will never operate on two frequencies.

## **5 TIMING**

The signal is a bursting signal. The duty cycle is 38 ms in 100 ms.

## **6 NETWORKING**

For this specific application there is no networking. The unit will communicate with a specific setup box.

## **7 OUTPUT POWER**

The max output power is 0 dBm.

## **8 ANTENNA**

The antenna is a small loop antenna. The pattern of the antenna is omnidirectional / donut shape. This antenna is a trace antenna and cannot be removed. It does not have an RF connector.