

ALLEGRO REPEATER

(2W Repeater)

RF Specification

FCC ID: NTA2WREP2

IC: 4732A-2WREP2

January 24, 2016

Rev 1.0

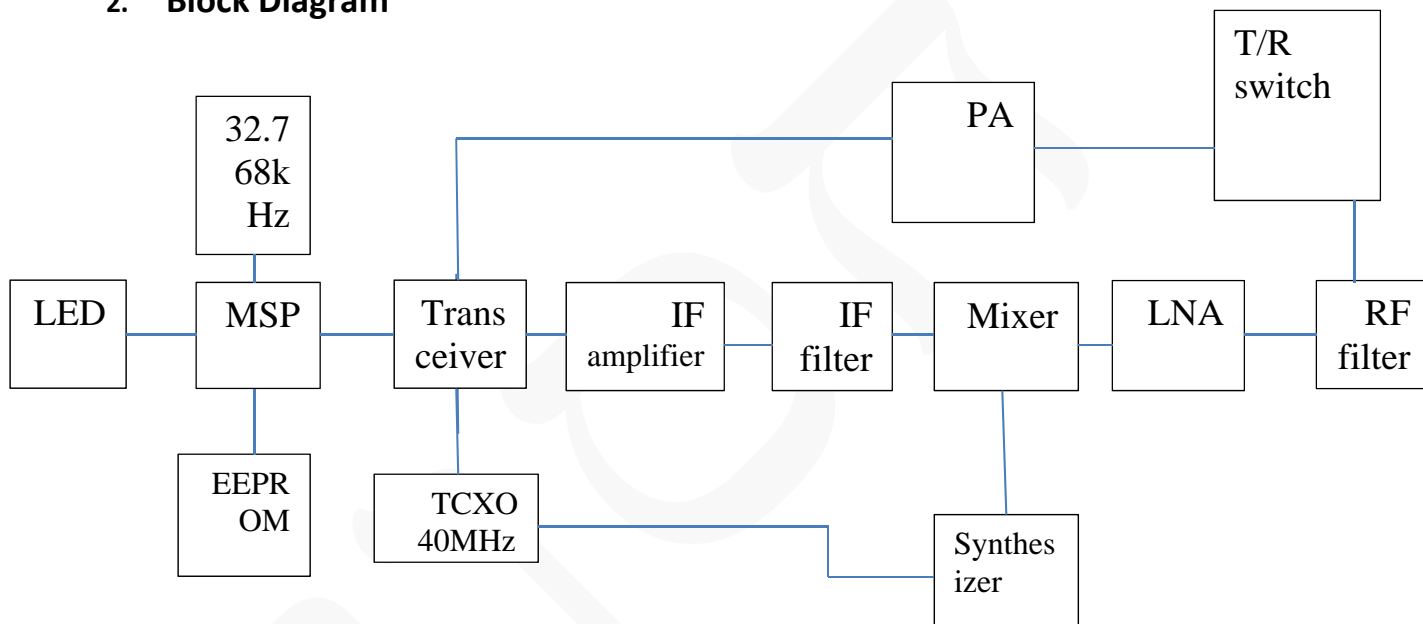
1. Introduction

This document describes the RF specifications of a 2-Way Repeater. The unit operates in the 450-470 MHz band and is powered by 12V DC.

The Repeater contains a microcontroller that provides the timing, control and data processing.

The Repeater is installed on the wall or on the pillar. The unit is connected to an external antenna.

2. Block Diagram



3. Electrical Performance

The Repeater is a narrow band radio that complies with FCC Part 90

There are 2 modes of operation

- Transmit narrow channel complies Part 90
- Receive narrow channel

3.1. Transmit Narrow Channel, complies with Part 90

Narrow Channel	
Parameter	Value
Transmit frequency band	450-470MHz*
Channel Separation	6.25kHz
Modulation	4GFSK
Max Frequency deviation	± 1.2 kHz
Max Data rate	4.8kbps
Frequency stability (including initial stability, temperature)	<1.0 ppm
Peak output power	35.2dBm
Harmonics	< -62dBc

Note:*Operation limited to channels defined in 47 CFR §90.261.

3.2. Receiver

Receive Parameters	
Parameter	Value
Receive frequency	Programmable in the range 450-470MHz
Sensitivity (BER 1E-3)	-120 dBm
Modulation	4GFSK
Frequency deviation	1.2 kHz

3.3. Antenna

The Repeater is connected to an external antenna. The max antenna gain is 7 dBi

3.4. Power

The unit is powered by 12VDC from charged battery or from AC-DC power supply.