



MT 38U 01 06A 1
DATA SHEET

Macro Technology Ltd.
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Description

MT38U0106A1 is an universal remote control transmitter with CMOS Technology which is designed for general purpose of infrared application. The device consists an 8-bit MCU with MACRO-SURC core. It can support up to maximum 6 function keys and 147 different type of system waveforms. It provides a cost effective **URC solution for TV system in a single chip.**

Features

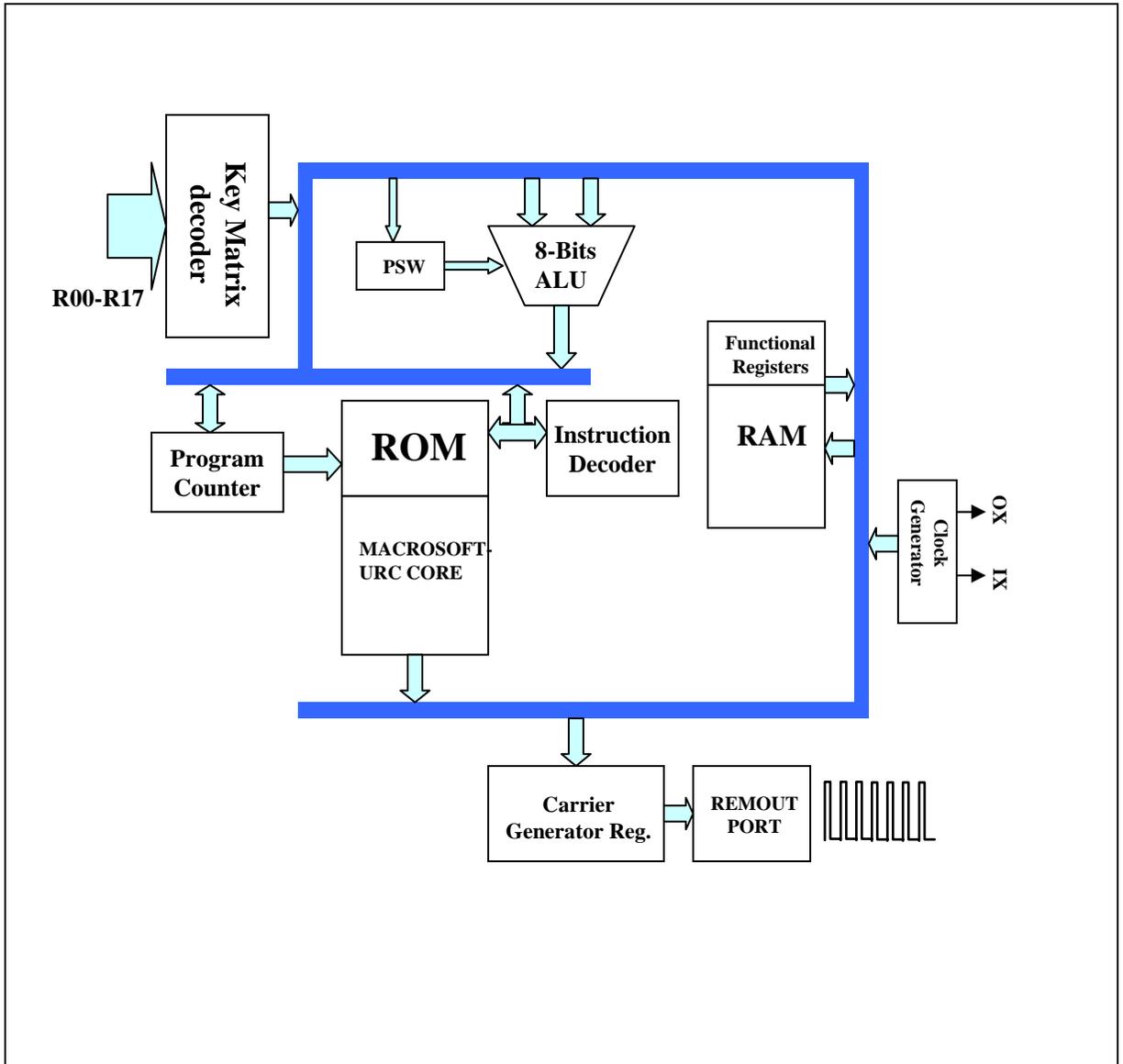
- ❖ CMOS Technology With Low Power Consumption
- ❖ 2.1V-5.2V Operation Voltage.
- ❖ Build in MACRO-SURC core
- ❖ Support up to maximum 6 function keys
- ❖ Support up to 147 different system waveforms
- ❖ Cover more than 4000 different codes
- ❖ Quick Power Search for the IR system code list.
- ❖ LED Indication.
- ❖ Buzzer Indication.

Application

Universal Remote Controller for TV in USA and China Market.



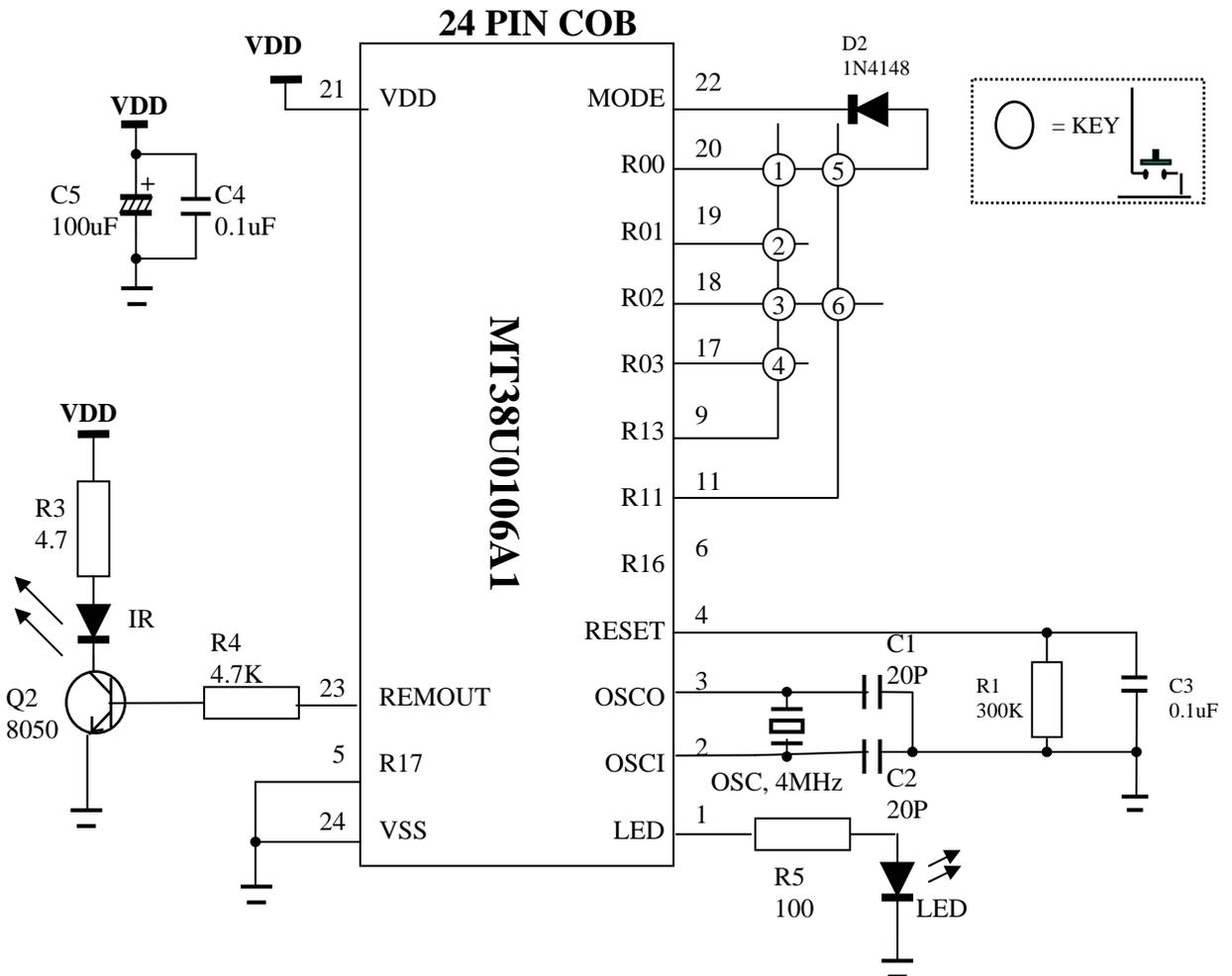
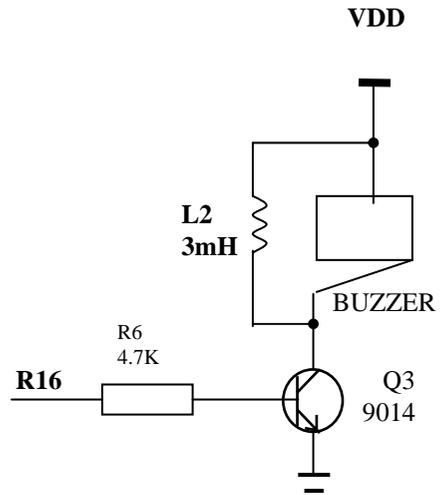
Functional Block Diagram





Application Circuit

Key #	DESCRIPTION
1	CH+
2	CH-
3	VOL+
4	VOL-
5	POWER
6	MUTE





⇒ Key Characteristic

KEY #	KEY NAME	DESCRIPTION
01	CH+	Channel Up
02	CH-	Channel Down
03	VOL +	Volume Up
04	VOL -	Volume Down
05	POWER	TV Power On/Off
06	MUTE	MUTE Function

⇒ Application Manual

Power Quick Search:

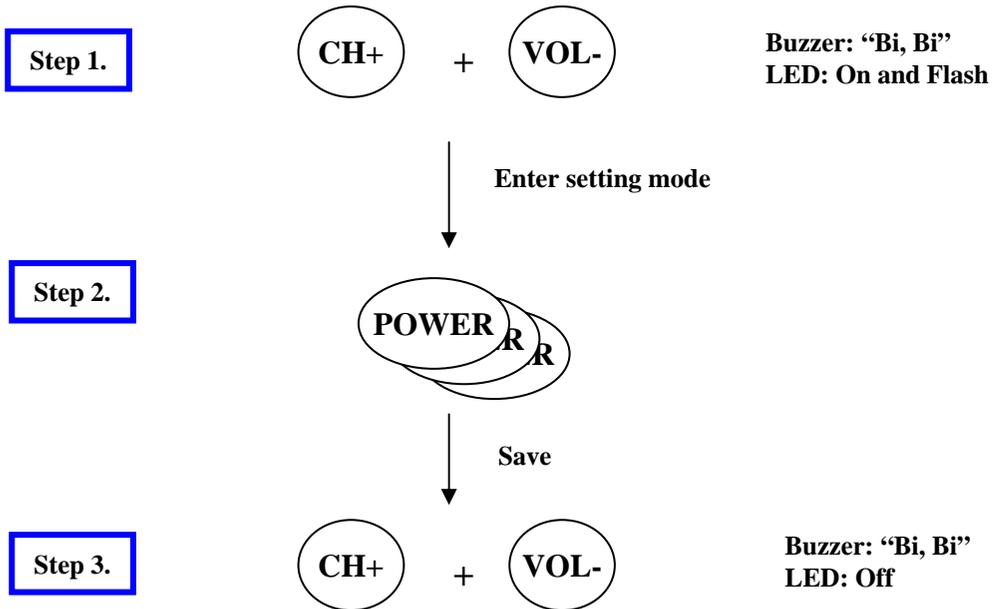
1. Turn your TV on.
2. Press **CH+ & VOL-** buttons simultaneously for about 2 second until it has “beep, beep” sound and LED flash. It stands for entering the **Quick Search Mode**.
3. Slowly press the **POWER** key repeatedly until the TV turn off. When this happens a correct code may have been found. Turn your TV on again and test functions **CH+, CH-, VOL+, VOL-**. If these functions do not work correctly it is necessary to find another code from the available library until all the functions work.
4. When all the functions work, it can exit the setup function by pressing the keys **CH+ & VOL-** simultaneously fro about 2 second until it has “beep, beep” sound and LED off. This will save the code for your TV.

Note:

1. Each time you press the **POWER** key, it will skip to the next code and transmit a Power signal to turn off your TV.
2. If you fail to stop pressing the **POWER** key when your TV has switched off, switch your TV on again manually and press the “**MUTE**” 2 times and press **Power**. It can send one previous code data. Repeat to press Mute x2 & Power until the TV off again. Then, press CH+ & VOL- to lock in the code.
3. If no key on your remote is pressed for 30 seconds, the programming process will stop automatically, and you will have to start over.



⇒ Operating Flow





G. Editing History

DATE	VERSION	DESCRIPTION	REMARK
05-2004	V1.0	ORIGINAL	
08-2004	V2.0	Modified the application circuit (diode)	
10-2004	V2.1	Updated the Reset Circuit	

Macro Technology Sales Network

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