

# **FCC ID: OYK-TX027145-0901**

## **Technical Description :**

The brief circuit description is listed as follows :

- Q10 and associated circuit act as Modulator and Amplifier.
- Q13 and associated circuit act as Buffer Amplifier.
- Q9, X1 and associated circuit act as 27.145 MHz Oscillator.
- U1 XXX59 acts as Encoder and MCU.
- VR1 to VR5 and SW4 act as Control Keys.
- SW1 acts as Channel Switch.
- Z1 and associated circuit act as Voltage Regulator for U1.
- Q1, Q2 and associated circuit act as Auto Power Shut off.

## **Antenna Used :**

A Telescope-type antenna with unique antenna connector has been used.

## XXX58 IC specification

### 1) GENERAL DESCRIPTION

XXX58 are 8-bit microprocessors designed and developed with low-power and high-speed CMOS technology. There is a 4K\*13-bit Read Only Memory (ROM) within it.

### 2) FEATURES

- Operating voltage range: 2.3V~5.5V
- Operating temperature range: 0°C~70°C
- Operating frequency range(base on 2 clocks):
  - \* RC mode: DC ~ 4MHz/2clks,5V; DC ~ 4MHz/2clks,3V
- Low power consumption:
  - \* Less than 1.5 mA at 5V/4MHz
  - \* Typically 15  $\mu$ A, at 3V/32KHz
  - \* Typically 1  $\mu$ A, during sleep mode
- 4K  $\times$  13 bits on chip ROM
- 84  $\times$  8 bits on chip registers (SRAM)
- 2 bi-directional I/O ports
- 8 level stacks for subroutine nesting
- 8-bit real time clock/counter (TCC) with selective signal sources, trigger edges, and overflow interrupt
- 8-bit multi-channel Analog-to-Digital Converter.
- Dual Pulse Width Modulation (PWM ) with 10-bit resolution
- One pair of comparators
- Power-down (SLEEP) mode
- Six available interruptions
- TCC overflow interrupt
- Input-port status changed interrupt (wake up from the sleep mode)
- External interrupt
- ADC completion interrupt
- PWM period match completion
- Comparator high interrupt
- Programmable free running watchdog timer8 Programmable pull-down I/O pins
- 7 programmable pull-high I/O pins
- 8 programmable open-drain I/O pins
- Two clocks per instruction cycle
- Power on voltage detector available (2.0V $\pm$  0.15V)