

A.HE83007 Introduction

HE83007 is a member of 8-bit Micro-controller series developed by King Billion Electronics Ltd. It is a power speech controller. The built-in OP comparator can be used with (light, voice, temperature, humidity) sensor and used as battery low detection. And the 7-bit current-type D/A converter and PWM device provide the complete speech output mechanism. The 960K ROM Size can be used in the storage of speech (300 seconds at 3Kbytes per second).

The instruction set of HE83007 are quite easy to learn and simple to use. Only about thirty instructions with four-type addressing mode are provided. Most of instructions take only 3 oscillator clocks (machine cycles). The processing power is enough to most of battery operation system.

B.HE83007 Features

- Operation Voltage : 2.4V – 5.5V
- System Clock : DC ~ 8MHz @ 5.0V
DC ~ 4MHz @ 2.4V
- Internal ROM : 960K Bytes(64K Program ROM, 896K Data ROM)
- Internal RAM : 128 Bytes.
- Dual Clock System : Normal (Fast) clock : 32.768K ~ 8MHz
Slow clock : 32.768KHz
- Operation Mode : DUAL、FAST、SLOW、IDLE、SLEEP Mode.
- With WDT (WATCH DOG TIMER) to prevent deadlock condition..
- 24 bit Bi-directional I/O port. Mask Option can select PUSH-PULL or OPEN DRAIN output mode for each I/O pin.
- One built-in OP comparator.
- One 7-bit current-type DAC output.
- PWM device.
- Two external interrupts and two internal timer interrupts.
- Two 16-bit timer. (Clock Source reference by Fast Clock)
- Instruction set : 32 instructions, 4 addressing mode. 7-bit DATA POINTER for RAM and 20-bit TABLE POINTER for ROM.