

# VCM-Series Product Data Sheet

Model Name: **VCM-20S Digital Voice Module** ..... Rev. G

## **Contents**

**Description** \_\_\_\_\_ Page 2

-Summary

-Product Photo

-Feature

### **Function / Specification**

-Trigger Mode Description \_\_\_\_\_ Page 3

-Electronic Spec. \_\_\_\_\_ Page 4

### **Hardware Description**

-PCB Diagram \_\_\_\_\_ Page 5

-Jumpers / Connectors Description \_\_\_\_\_ Page 5

-Operation Note \_\_\_\_\_ Page 6

-PCB Dimension Diagram \_\_\_\_\_ Page 6

### **Housing Description**

-Metal Box Dimension Diagram \_\_\_\_\_ Page 7

-Metal Box Photo \_\_\_\_\_ Page 8

Hwan Maw Technology Co., Ltd.

Tel.: +886-2-2274-1347 Fax. +886-2-2273-3014

[Http://www.hmt.com.tw](http://www.hmt.com.tw) e-mail: [hmtsales@hmt.com.tw](mailto:hmtsales@hmt.com.tw)

# VCM-Series Product Data Sheet

Model Name: **VCM-20S Digital Voice Module** ..... Rev. G

## Introduction

**VCM-20S** is a digital voice module. It directly plays back 8-bit mono PCM sound files digitized at 8,11,16,22,24,32 KHz. Sound files are programmed and stored in nonvolatile EPROM chips for instant, random access. There is no restriction on the length of each sound, as long as the total length of all sounds combined fit to the chips.

The board is designed to be a standalone device, and powered by a single voltage supply. Sound playback can be triggered by a number of devices such as push buttons, motion sensors and dry contact closures. The built-in power amplifier can deliver up to 3W into a speaker, with a volume control tuner.

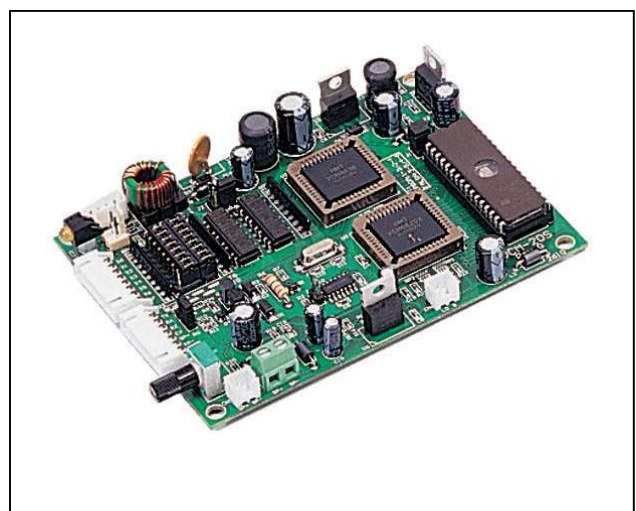
The board can be configured to operate in different modes. The configuration data is stored in EPROM chips along with sound bytes. On power up the board will configure itself automatically. There is no need to set switches manually.

There are many Playback Modes: Direct Single, Direct Single of Cycle, Binary, Parallel and Serial modes. All of settings are edit via Rom-Linker Software Tool.

## Feature

- \*Max. Quantity of Messages:
  - 8 Messages in Direct Single Mode
  - 255 Messages in Parallel Mode
- \*Memory Type: EPROM(27xxx)
  - 1Mb/4Mb/8Mb
- \*Max. Memory Capacity: 8M-bits x 1
- \*Voice Length: (Max. 8Mbits)
  - 127 Seconds at 8KHz
  - 63 Seconds at 16KHz
- \* Voltage Supply: 12~36 VDC, 0.5A
- \*Output amplifier: 3W (Ro = 4 ohm)

## Product Photo



# VCM-Series Product Data Sheet

Model Name: **VCM-20S Digital Voice Module** ..... Rev. G

## Function / Specification

Input trigger pins number	8 pins , Photo coupler isolated
Input trigger acknowledge	High/Low with jumper selections.
Exterior response signal	Busy signal and EOVS signal (End of Voice)
EPROM IC socket quantity	1 pc
EPROM IC type	1Mbits / 4Mbits / 8Mbits with jumper selections.
Sampling rate support	8KHz / 11KHz / 16KHz / 22KHz / 24KHz / 32 KHz
Max. Total length	127 seconds / 8KHz sampling rate. Used 8MB x 1.
Max. quantity of messages	255 messages in Parallel / Serial mode.
Max. address quantity of digital voice files	160 files
Properties for Every message of	Edge / Level , Hold / Unhold , Retrigger / Irretrigger (All of trigger pins can be set individually.)

### Trigger Mode Support / Trigger Pins Description / Max. Quantity of Message

Direct Single mode	X0-X7	8 messages
Single Circulating mode	X0-X7	8 messages
Binary code mode with strobe signal	X0-X6, Strobe : X7	127 messages
Parallel of binary code mode without strobe signal	X0-X7	254 messages
Serial code mode	Rx	255 messages
Serial frame mode	Rx	255 messages

# VCM-Series Product Data Sheet

Model Name: **VCM-20S Digital Voice Module** ..... Rev. G

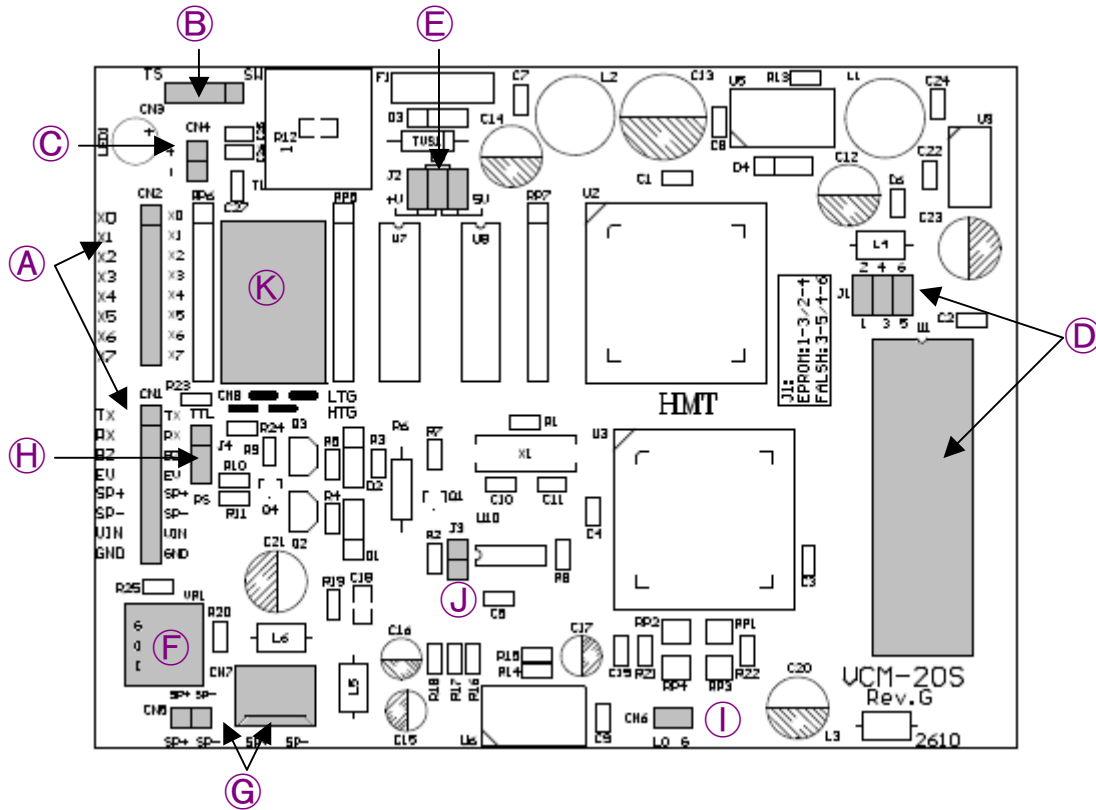
## Electronic Specification

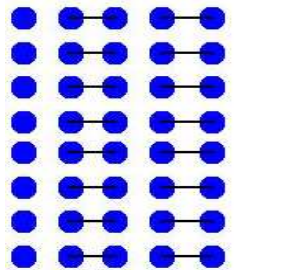
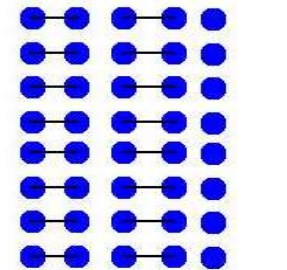

Voltage Supply	DC 12 - 36 V / 500 mA (DC-DC)
Amplifier Output	3 watt, Ro = 4 ohm
Consumption (Audio Output)	0.5A at DC 24 Vin
Consumption (Without Audio Output)	130mA at DC 24V
Trigger Inputs De-bounce Time	Signal length 80ms at least.
Watch Dog Function	Yes
Operating temperature	0°C - 70°C
Line Out	Yes
Volume Control	Yes
Serial baud rate and format	2400 bps / 4800 bps / 9600 bps, N, 8,1
Serial signal level	Tx: TTL, Rx: TTL / RS-232
PCB Dimension (L x W x H)	118 x 87 (mm)
Metal Box (Option)	Yes

# VCM-Series Product Data Sheet

Model Name: **VCM-20S Digital Voice Module** ..... Rev. G

## PCB Diagram / Jumpers & Connectors Description



A	Input Trigger Pins : X0-X7	Tx : Serial Signal Output	Rx: Serial Signal Input BZ : Busy signal output EV: End of Voice Signal Output Sp+ / Sp- : Audio Output V+: Power Supply DC:11-36 V, 0.5A GND: Ground. (0V)
B	To connect Switch. (For Box Use.) Normal set at SW side.		
C	CN4: V+,G : Power supply	G	SP+, SP-Audio Out with Amplifier.
D	J1 : EPROM Type setting.: EPROM(Default Value),And EPROM IC Socket.	H	J4 : Serial mode setting. Default set “RS side” for RS-232 input.
E	J2: Normal set at 5V side.	I	“Lo G” Audio Out without Amplifier.
F	Volume Control.	J	J3 : System Reset.
K	<p>By placing the jumpers to certain ports when select which trigger Level is used.</p> <p>&lt;Default : Low Trigger&gt; <b>Low Voltage Trigger</b>                      <b>High Voltage Trigger</b></p> <div style="display: flex; justify-content: space-around; align-items: center;">   <div style="margin-left: 20px;">  </div> </div>		

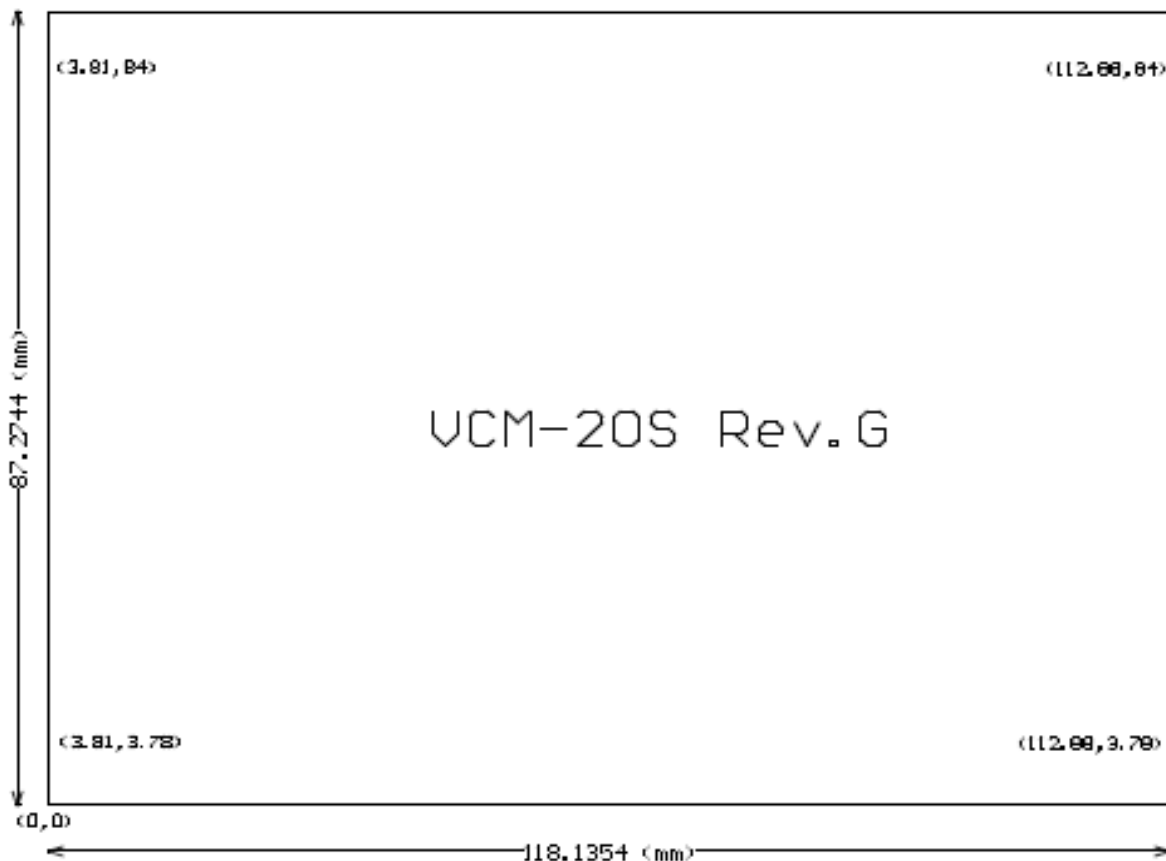
# VCM-Series Product Data Sheet

Model Name: **VCM-20S Digital Voice Module** ..... Rev. G

## Operation Note

When Power supply is on, the system should sound out “Beep! Beep! ( two times)” – It represents the P.C.B. and EPROM data programming are ready. If not, please check out Rom-link software setting and all connections.

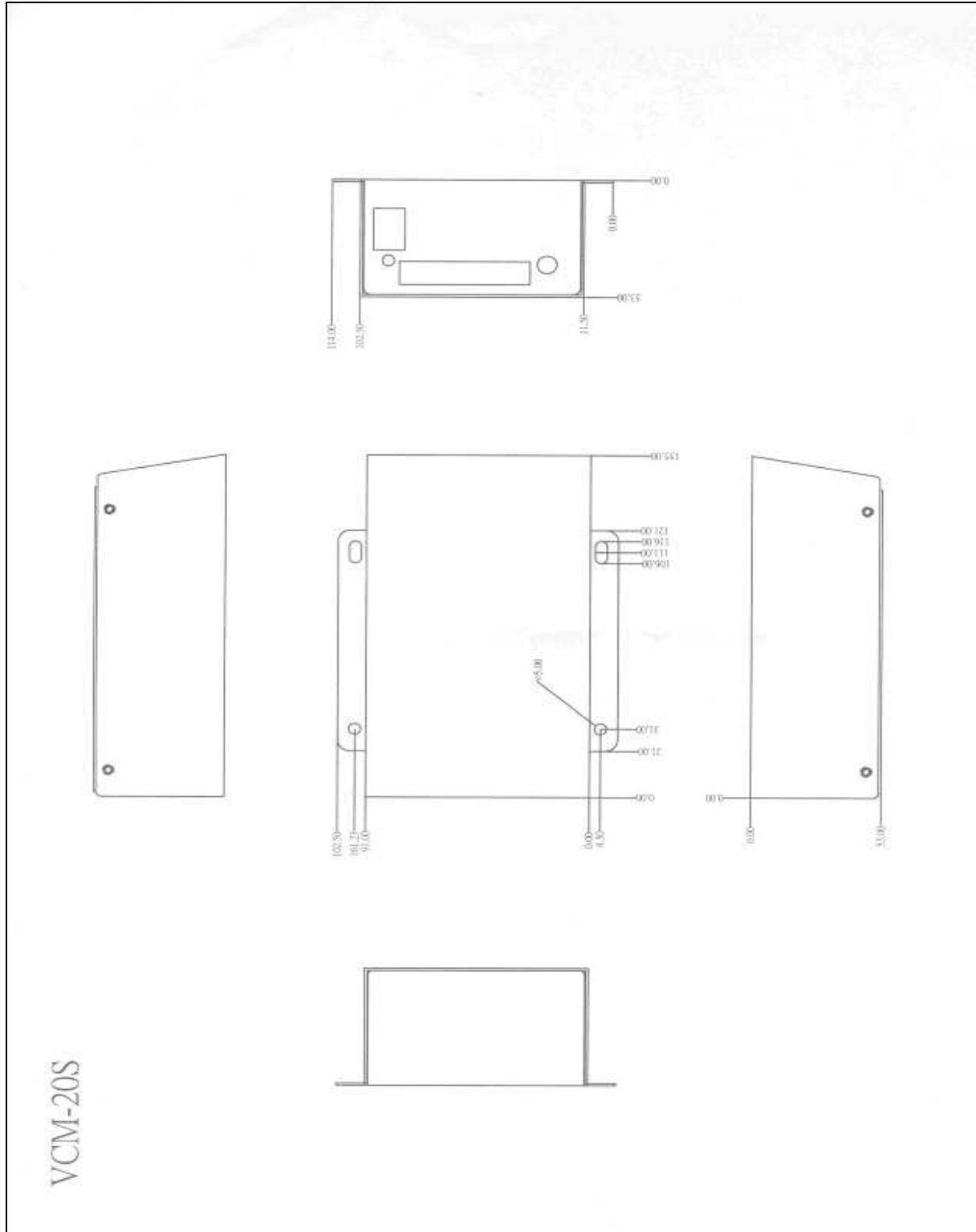
## PCB Dimension Diagram



# VCM-Series Product Data Sheet

Model Name: **VCM-20S Digital Voice Module** ..... Rev. G

## Metal Box Dimension Diagram



# VCM-Series Product Data Sheet

Model Name: **VCM-20S Digital Voice Module** ..... Rev. G

## **Metal Box Photo**

