

VCM-Series Product Data Sheet

Model Name: **VCM-01X Digital Voice Module** Rev.C

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Introduction

VCM-01X 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.

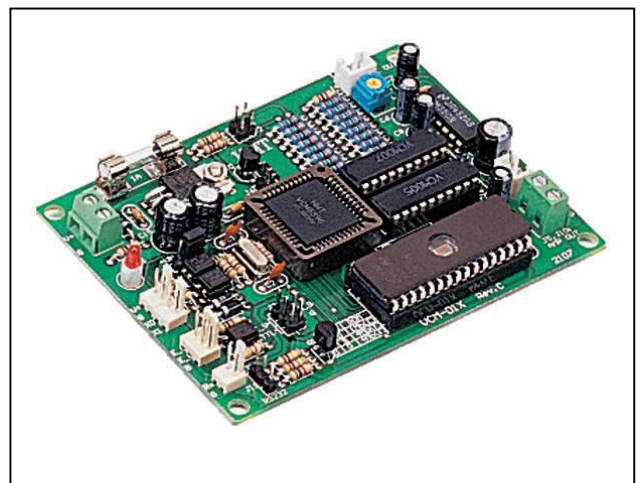
The board is designed to be a standalone device, and powered by a single voltage supply. Sound playback can be triggered by a number of devices such as push buttons, motion sensors and dry contact closures. The built-in power amplifier can deliver up to 3W into a speaker, with a volume control tuner.

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.

Feature

- *Max. Quantity of Messages:
2 Messages in Direct Single Mode
- *Memory Type:
EPROM (27Cxxx), 1Mb/4Mbits
- *Max. Memory Capacity:
4M-bits x 1
- *Voice Length: (Max. 4Mbits)
63 Seconds at 8KHz
31 Seconds at 16KHz
- * Voltage Supply: 12 VDC, 300mA
- *Output amplifier: 3W (Ro = 4 ohm)

Product Photo



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Function / Specification

| | | |
|---|--|------------|
| Input trigger pins number | 2 pins, Photo coupler isolated | |
| Input trigger acknowledge | Active Low. | |
| Exterior response signal | Busy signal and EOVS signal Output.(End of Voice Signal.) | |
| EPROM IC socket quantity | 1 pc | |
| EPROM IC type | 1Mbits / 4Mbits with jumper selections. | |
| Sampling rate support | 8KHz / 11KHz / 16KHz / 22KHz / 24KHz / 32 KHz | |
| Max. Total length | 63 seconds / 8KHz sampling rate/ 8Mbits x 1 | |
| Max. quantity of messages | 2 messages in Serial mode. | |
| Max. address quantity of digital voice files | 160 files | |
| Properties for every message | Edge / Level , Hold / Unhold , Retrigger / Irretrigger (All of trigger pins can be set individually.) | |
| Trigger Mode Support / Trigger Pins Description / Max. Number of message | | |
| Direct Single mode | X0, X1 | 2 messages |
| Single Circulating mode | X0, X1 | 2 messages |

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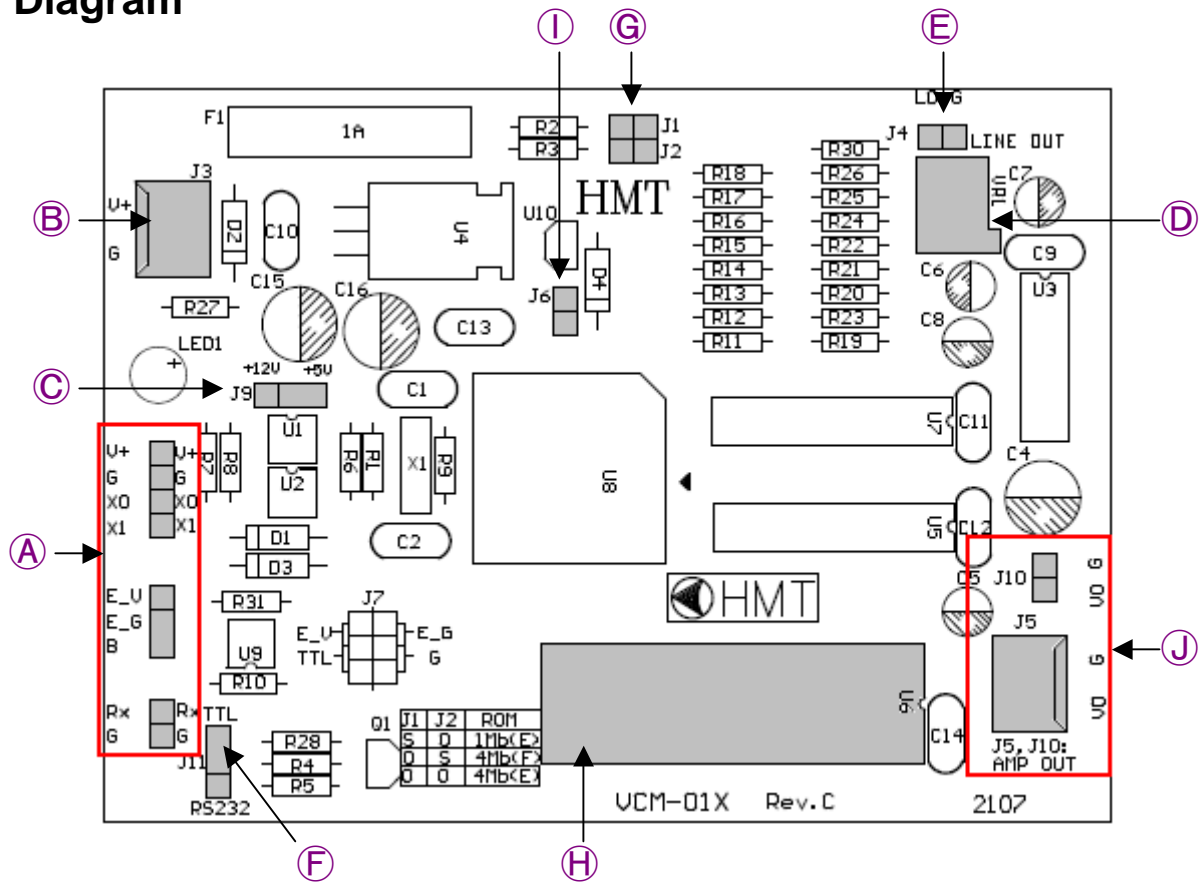
Electronic Specification

| | |
|------------------------------------|-----------------------------|
| Voltage Supply | DC 12V / 0.8A |
| Amplifier output | 3 watt, Ro = 4 ohm |
| Consumption (Audio Output) | 0.25mA at DC 12Vin |
| Consumption (Without Audio Output) | 130mA at DC 12V |
| 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 |
| PCB Dimension (L x W x H) | 106 x 78 (mm) |
| Metal Box (Option) | No |

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PCB Diagram



Jumpers & Connectors Description

| | | | |
|---|--|---|-----------------------------------|
| A | Input Pins Information See PCB label: Input Trigger Pins : X0-X1, Rx / G : Serial signal interface B: Busy signal output E: End of voice signal output.(Setting by J7.) | | |
| B | Power Supply: DC 9-13V, 0.5A | G | EPROM Type with jumper Selections |
| C | J9: Normal set at 5V side | H | EPROM IC Socket #1 |
| D | Volume Controller | I | J6: System Reset |
| E | J4: Audio line out | J | J10, J5: Audio Out with Amplifier |
| F | J11: Serial mode input level selections | | |

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.

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PCB Dimension Diagram

