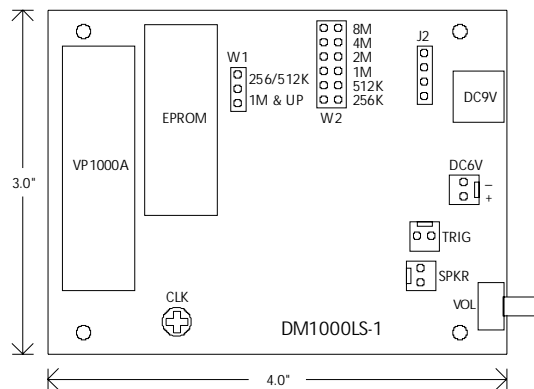


DM1000LS

Single-Message Voice Playback Module



- **Operation Mode:** playback only
- **Max. Number of Messages:** 1
- **Memory Type:** EPROM
- **Memory Capacity:** 256K - 8M x 1
- **Max. Message Length @ 32K:** 4 min.
- **Supply Voltage:** 6VDC or 9VDC
- **Typical Operating Current:** 300mA
- **Max. Audio Output:** 1W
- **Battery Operation:** suitable
- **Options:**
infrared motion sensor SU20
plastic enclosure with speaker

General Description

The DM1000LS is an EPROM-based digital voice module which can play back a pre-programmed message up to 4 minutes long. It is totally self-contained and requires only a power supply, a speaker and a trigger device to operate.

The desired message must be pre-programmed into EPROM memory by using voice development system VP880 or VW1000A. Since EPROM is nonvolatile, there is no need for battery backup. The sampling rate is adjustable, so higher sampling rates can be used to obtain better sound quality.

Many different kind of trigger devices can be used to activate the message. Basically a momentary contact closure or a logic low pulse is what's needed to start the message. Or the message can be motion activated by connecting a SU20 motion sensor to the board. The message is not interruptable and will play once per trigger. If the trigger is still present when the message ends, the message will restart.

The DM1000LS is particularly suitable for battery operation thanks to its low power design. Typical standby current is less than 1 uA, therefore the standby power consumption is virtually zero. Nonetheless, it can deliver an ample 1W output directly into a speaker when in operation.

Installation Guide

Power Connectors (use either one of the following):

DC9V: 9VDC adaptor input, 2.1mm coax plug, center positive
DC6V: 6VDC input, 2-pin header, 0.1" spacing

Trigger Connector: TRIG

Trigger input, 2-pin header, 0.1" spacing

Speaker Connector: SPKR

Differential audio output, 2-pin header, 0.1" spacing

Motion Sensor Connector: J2

(optional) SU-20 input, 4-pin header, 0.1" spacing

EPROM Type Jumper: W1

Place jumper on 256/512 when using 256K or 512K EPROM.
Place jumper on 1M UP when using 1M or bigger EPROM.

EPROM Size Jumper: W2

Place jumper on the pins corresponding to the EPROM size. Supported EPROM sizes are 256K (27C256), 512K (27C512), 1M (27C010), 2M (27C020), 4M (27C040) and 8M (27C080). Any EPROM speed is acceptable.

Volume Control: VOL

Sampling Rate Adjustment: CLK

If the sampling rate needs adjustment, play the message and turn CLK until it sounds right. The exact sampling rate can be measured at pin 19 of the VP1000A chip.