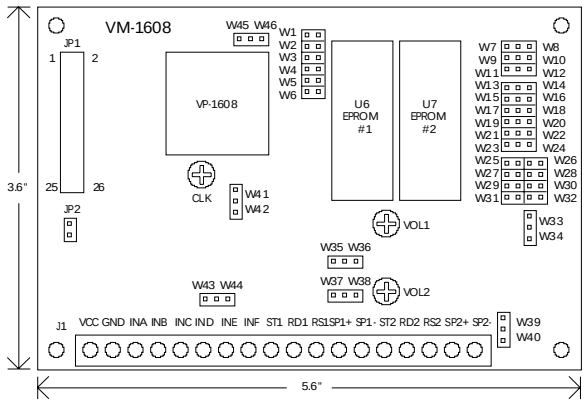
QuikVoice™

VM1608

Dual Channel 128-Message Playback Board



- **Operation Mode:** playback only
- **Max. Number of Messages:** 128
- **Memory Type:** EPROM
- **Memory Capacity:** 2 chips of 1M - 8M
- **Max. Message Length @ 32K:** 8.5 min.
- **Supply Voltage:** 12V or 24V DC
- **Typical Operating Current:** 200mA
- **Max. Audio Output:** 1W
- **Battery Operation:** not suitable
- **Options:** none

General Description

The VM1608 is a digital voice module which can randomly playback up to 128 pre-programmed messages via two independent channels. It is totally self-contained and requires only a power supply, a speaker and a few trigger signals to operate.

Desired messages must be digitized and programmed into EPROM chips by using the VP880 voice development system. Since EPROM is nonvolatile, there is no need for battery backup. The sampling rate is adjustable so higher sampling rates (and higher memory cost) can be used for applications requiring better sound quality.

Each channel may contain up to 64 messages organized in 1, 2, 4 groups, with up to 16 messages in each group. Message length is flexible within the group, but messages may not span across group boundary. Each message is uniquely represented by a Group Code (2 bits) and an ID Code (4 bits). The Group Code is assigned by programming the data into a certain bank in the EPROM. The ID Code is assigned by the VP880 in the order the messages are combined.

To play a certain message, apply its Group Code on pins INE (LSB) and INF (MSB), and its ID Code on INA (LSB) to IND (MSB). Then pull the ~STROBE pin to ground momentarily. The ACK pin will go low and stay low to acknowledge the receipt of the ~STROBE signal. Further triggering is ignored until the playback is over. To stop the playback prematurely, pulse the RESET pin high momentarily.

Audio outputs from the two channels can be individually output or mixed together on-board. A jumper on the board determines whether the output is speaker or line level.

Installation Guide

Power & Signal Connector: P1 (ribbon cable connector)

PIN1: INA input	PIN12: SP1+ output
PIN2: no use	PIN13: EXT CLOCK input
PIN3: INB input	PIN14: no use
PIN4: ~RESET1 input	PIN15, 16: 12/24VDC input
PIN5: INC input	PIN17, 18: 5VDC output
PIN6: ~STROBE1 input	PIN19, 20, 23: GROUND
PIN7: IND input	PIN21: SP2+ output
PIN8: no use	PIN22: no use
PIN9: INE input	PIN24: ~RESET2
PIN10: ACK1	PIN25: ACK2
PIN11 INF input	PIN26: ~STROBE2 input

EPROM Configuration Jumpers: W1 - W34
Please refer to the EPROM Configuration Guide for details. Each channel is allocated with exactly half the memory installed.

Power Amp Configuration Jumpers: W35 - W38
Amplified Output: W36, W38
Line Level Output: W35, W37
- Individual ground referenced outputs on SP1+ and SP2+
- Mixed, balanced output on SP1+ and SP2+

ACK Polarity Jumpers: W41 - W44
Active High: W41, W44 (available by special request)
Active Low: W42, W43 (standard)

Input Voltage Jumper: JP2
Open JP2 for 24VDC, close JP2 for 12VDC.

Sample Rate Adjustment: Pot CLK (32-64 Kbps)

Volume Control: Pot VOL1 and VOL2

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VM1608

EPROM Configuration Guide

EPROM Usage	1M x 1			1M x 2			2M x 1			2M x 2			4M x 1			4M x 2			8M x 1			8M x 2		
No. of Groups	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4
W1	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
W2	*			*	*		*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
W3				*			*			*	*		*	*		*	*	*	*	*	*	*	*	*
W4										*			*			*	*		*	*		*	*	*
W5																*			*			*	*	
W6																						*		
W7	*	*	*	*	*	*																		
W8																								
W9	*	*	*	*	*	*	*	*	*	*	*	*												
W10																								
W11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
W12																								
W13			*																					
W14																								
W15		*				*			*															
W16			*																					
W17					*			*				*			*									
W18						*			*															
W19											*			*				*			*			
W20												*			*									
W21																	*			*				*
W22																		*			*			
W23																							*	
W24																								*
W25	*	*	*																					
W26																								
W27							*	*	*															
W28																								
W29													*	*	*									
W30																								
W31																			*	*	*			
W32																								
W33				*	*	*				*	*	*				*	*	*				*	*	*
W34	*	*	*				*	*	*				*	*	*				*	*	*			

* Place a jumper cap on these jumper locations.

** Each cahnnel uses no more than half the EPROM capacity.

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