MAH Series 14 Pin DIP Oscillator

O **Industry Standard Package**

O **RoHS Compliant Available**

O **HCMOS Output**

O **Wide Frequency Range**

Frequency Range	32.768 kHz to 200.000 MHz		
Frequency Stability (Inclusive of Temperature, Load, Voltage and Aging)	See Part Number Guide		
Operating Temperature	See Part Number Guide		
Storage Temperature	-55°C to +125°C		
Waveform	HCMOS		
Logic "0"	10% Vdd max		
Logic "1"	90% Vdd min		
Duty Cycle 50% of Waveform	See Part Number Guide		
Load	50pF max		
Start Up Time	10mSec max		
Rise/Fall Time	Up to 70.000MHZ	6 nSec max	
	Above 70.000MHZ	4 nSec max	
Standby Current Consumption	100µA		
Supply Voltage (VDC ±10%) – Supply Current (in mA max)	+5.0	+3.3	+2.5/+1.8
32.728kHz to 1.000MHz	35	10	NA
1.001MHz to 24.000MHz	45	25	NA
24.001MHz to 50.000MHz	55	35	NA
50.001MHz to 70.000MHz	60	35	NA
70.001MHZ to 200.000MHZ	85	40	NA
24.000MHz to 30.000MHz	NA	NA	20
30.001MHz to 80.000MHz	NA	NA	40

Environmental & Mechanical Detail

Shock	MIL-STD-883, Method 2002 Cond B
Solderability	MIL-STD-883, Method 2003
Solvent Resistance	MIL-STD-202, Method 215
Vibration	MIL-STD-883, Method 2007, Cond A
Gross Leak Test	MIL-STD-883, Method 1014, Cond C
Fine Leak Test	MIL-STD-883, Method 1014, Cond A2
MSL	Level 1 per IPC/JEDEC J-STD 20

Marking Detail

Line 1 = MXXXXX		
	M	=	MMD
	XXXXX	=	Frequency in MHZ
Line 2 = SYYWWL		
	S	=	Internal Code
	YYWW	=	4 Numerical Digit Date Code (Year / Week)
	L	=	Denotes RoHS Compliant
Line 3 = XXXXX		
Internal use only		
May vary with lots		
Pin 1 Designator		

RoHS Compliant Lead Free

In the event of conflict, the requirements of this specification shall govern.

Revisions only with customer approval

Revision:	08/23/16 H

Part Number Guide

MAH ☐ ☐ ☐ ☐ ☐ — **FREQUENCY** — ☐

14 pin DIP

RoHS Compliant
Blank = Not Compliant
F = Is RoHS Compliant

Supply Voltage
5 = +5.0 VDC
3 = +3.3 VDC
2 = +2.5 VDC
1 = +1.8 VDC

Frequency Stability
010 = ±10 ppm
020 = ±20 ppm
025 = ±25 ppm
050 = ±50 ppm
100 = ±100 ppm

Operating Temperature
Blank = 0°C to +70°C
27 = -20°C to +70°C
48 = -40°C to +85°C

Symmetry
Blank = 40/60%
A = 45/55%
B = 47.5/52.5%

Pin 1 Connection
Blank = No Connect
H = Tri-state
S = Standby

Value Added Options
Blank = No Added Options
G = Gull-Wing (option 2)
CLXXX = Cut Leads
    XXX = Lead Length Code

PLEASE CONSULT WITH MMD SALES DEPARTMENT FOR ANY OTHER PARAMETERS OR OPTIONS

Mechanical Details

20.70 [.815] MAX

5.08 [.200]

5.08 [.200] MIN

.50 [.020]

15.24 [.600]

13.10 [.516] MAX

7.62 [.300]

1   7
14   8

MXXXXX
SYYWWL
XXXXX

PIN CONNECTIONS	
PIN 1	N/C, TRI-STATE or STANDBY
PIN 7	CASE GROUND
PIN 8	OUTPUT
PIN 14	SUPPLY VOLTAGE

TRI-STATE OPERATION	
PIN 1	PIN 8
LOGIC "1" OR N/C	OSCILLATION
LOGIC "0" OR GRD	HIGH IMPEDANCE

DIMENSIONS IN BRACKET ARE IN INCHES
EXTERNAL BYPASS CAPACITOR RECOMMENDED

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