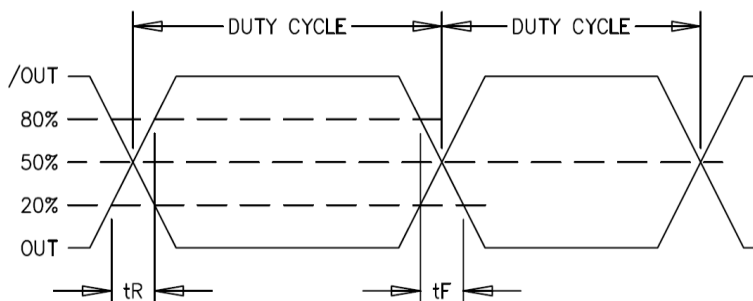


SPECIFICATION FOR SELECTABLE FOUR-FREQUENCY LVPECL SMT OSCILLATOR MtronPTI P/N: M2140S020

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency 1	F ₁		100.0000000		MHz	
Frequency 2	F ₂		125.0000000		MHz	
Frequency 3	F ₃		156.2500000		MHz	
Frequency 4	F ₄		161.1328125		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-20		+20	ppm	Deviation over operating temperature.
Aging		-3		+3	ppm	1 st year
		-1		+1	ppm	Thereafter (per year)
RF Output						
Output Type		LVPECL Compatible				
Output Load		50 Ω to (V _{CC} -2) VDC			V	
Symmetry (duty cycle)	T _{DC}	45		55	%	Ref. to 50% of waveform
Logic Level “1”		V _{CC} -1.02			V	
Logic Level “0”				V _{CC} -1.63	V	
Rise/Fall Time	T _R /T _F			0.35	nS	From 20% to 80% V _{DD}
Start-up Time	T _{SU}			10	mS	T _{amb} = +25°C
Enable/Disable Function		70% V _{DD} or N/C			V	Pad 1: Output Enabled
				0.5		Pad 1: Output Disabled to high-Z
Supply Voltage & Power Consumption						
Operating Voltage	V _{CC}	3.135	3.3	3.465	V	
Supply Current	I _{CC}			130	mA	
Other Parameters						
Phase Jitter (RMS)	Φ _J		220	300	fsec	12KHz to 20MHz

Output Waveform:



SPECIFICATION FOR SELECTABLE FOUR-FREQUENCY LVPECL SMT OSCILLATOR MtronPTI P/N: M2140S020

Environmental & Packaging Requirements:

Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)					
Moisture Sensitivity Level (MSL)	MSL 1					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	9-pad 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant.					

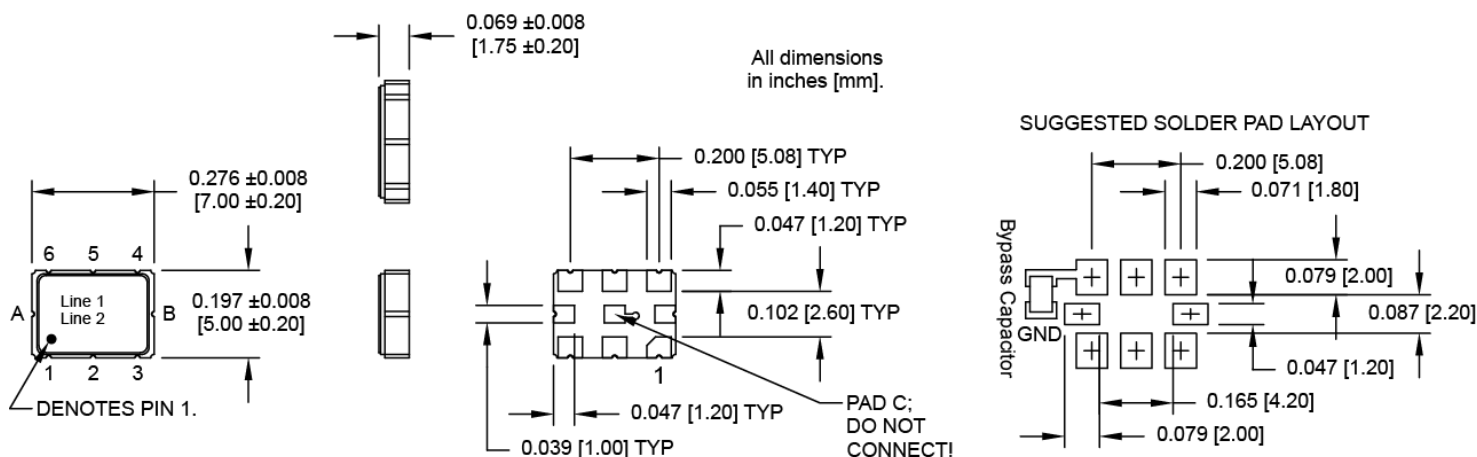
Dimensions, Marking, Pin Out:

Pad	Function
1	Enable/Disable
2	N/C
3	Ground
4	Output
5	Complimentary Output
6	+V _{CC}
A	FS0
B	FS1
C	Do Not Use

Part Marking	
Line 1	M2140S020
Line 2	MPTI yyww

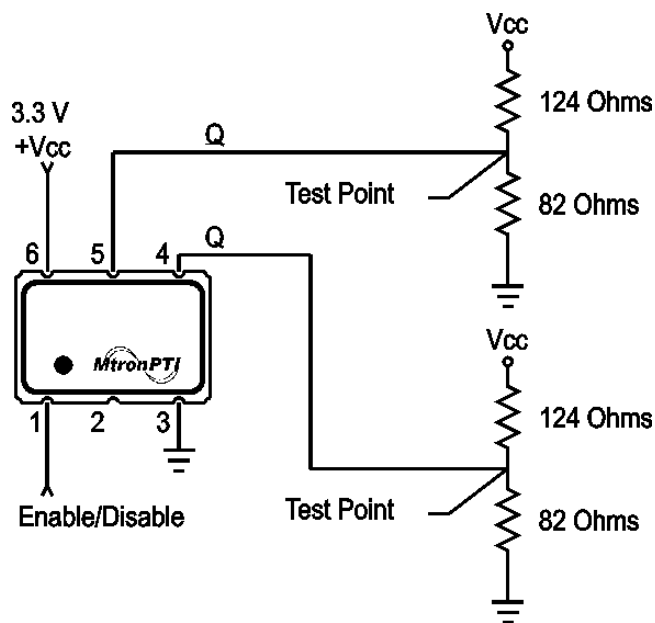
Legend	
yy	Year
ww	Work Week

FREQUENCY SELECTION TRUTH TABLE		
	FS1	FS0
F1	"HIGH"	"HIGH"
F2	"HIGH"	"LOW"
F3	"LOW"	"HIGH"
F4	"LOW"	"LOW"



Typical Test Circuit & Load Circuit Diagrams:

SPECIFICATION FOR SELECTABLE FOUR-FREQUENCY LVPECL SMT OSCILLATOR MtronPTI P/N: M2140S020



Soldering Conditions:

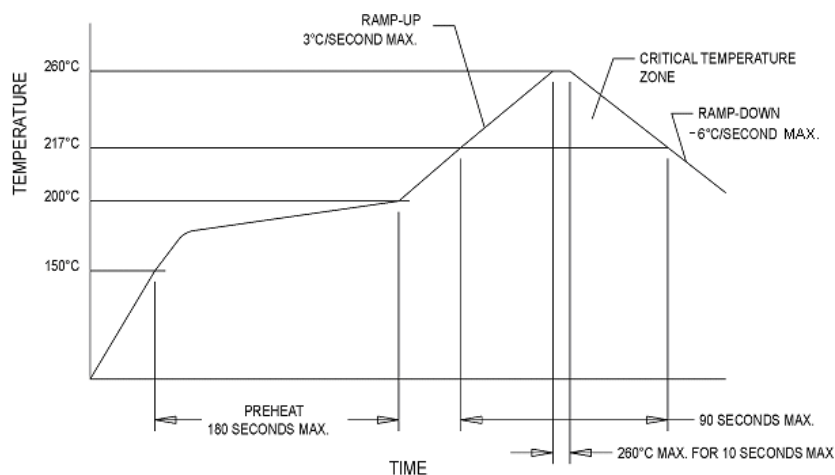


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
7/27/15	0	MM	Original release.