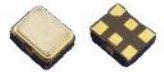


ULTRA MINIATURE SMD PECL OUTPUT OSCILLATOR (2.0 x 1.6 x 0.9mm)

FEATURES:

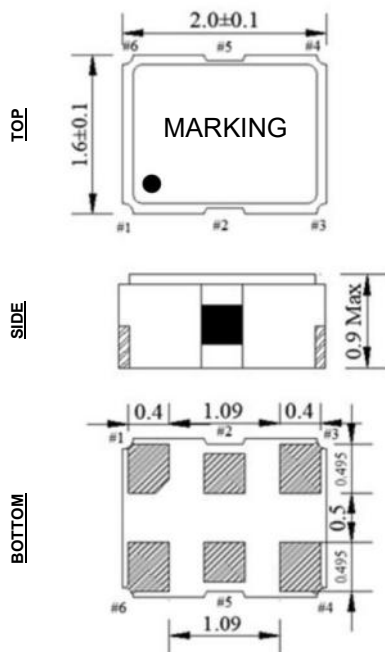
- LVPECL MINIATURE SMD
- ULTRA LOW PHASE JITTER PERFORMANCE
- EN/DISABLE PIN AVAILABLE



SPECIFICATION

FREQUENCY RANGE		13.500MHz ~ 156.250MHz
FREQUENCY STABILITY		STD: ± 50 ppm, ± 10 ppm ~ ± 100 ppm max. (See P/N guide for options)
OPERATING TEMPERATURE RANGE		STD: $0^{\circ}\text{C} \sim 70^{\circ}\text{C}$, option: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ (See P/N guide for options)
STORAGE TEMPERATURE RANGE		$-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$
SUPPLY VOLTAGE $\pm 10\%$		$2.5V_{\text{DC}}, 3.0V_{\text{DC}}, 3.3V_{\text{DC}}$
SUPPLY CURRENT		50mA max.
OUTPUT	LOGIC FAMILY	LVPECL
	LOAD	50Ω (into $V_{\text{DD}} - 2.0V_{\text{DC}}$)
	LEVEL LOGIC '1' (V_{OH})	$V_{\text{DD}} - 1.025V_{\text{DC}}$ min.
	LEVEL LOGIC '0' (V_{OL})	$V_{\text{DD}} - 1.620V_{\text{DC}}$ max.
	PEAK TO PEAK	600mV min. 800mV typ.
	SYMMETRY(DUTY CYCLE)	STD: 40/60%, Option: 45/55% (See P/N guide for options)
	RISE AND FALL TIME (T_r/T_f)	1nS max. (20%~80% output swing level)
STAND-BY VOLTAGE	START-UP TIME	5mS typ. 10mS max.
	ENABLE (V_{IH})	$0.7 \times V_{\text{DD}} \leq V_{\text{IH}} \leq V_{\text{DD}}$ or N/C
STAND-BY CURRENT (Pin#1= V_{IL})	DISABLE (V_{IL})	$V_{\text{IL}} \leq 0.3 \times V_{\text{DD}}$
	ENABLE DELAY TIME	10 μ A max.
DISABLE DELAY TIME		10mS max.
AGING @ $+25^{\circ}\text{C} \pm 3^{\circ}\text{C}$		200nS max.
PHASE JITTER RMS (12kHz to 20MHz)		± 3.0 ppm / 1 st year max.
		1.0pS max.

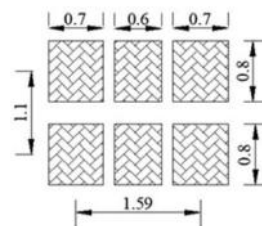
PACKAGE DIMENSIONS



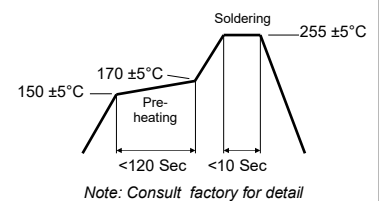
Unit : mm

Pin Configuration	
1	En/Dis
2	NC
3	GND
4	Output
5	C.output
6	V_{DD}

SOLDER PATTERN



REFLOW PROFILE



PART NUMBERING GUIDE

TPSM21 - P 50 HM 33 S T1 - 25.000M - TR									
Product series			Tape and Reel						
Output			TR: 3000/reel						
P: LVPECL			Blank: Cut tape						
Stability			Frequency						
00: ± 100 ppm 50: ± 50 ppm			M: MHz						
25: ± 25 ppm			Tristate						
XX: Two digit for Stability			T1: Pin#1-En/Disable						
Operating Temperature			Symmetry						
A: -55 F: -20 M: 70 S: 100			R: 40/60%						
B: -50 G: -10 N: 75 T: 105			S: 45/55%						
C: -40 H: 0 P: 80 U: 125			Supply Voltage						
D: -35 J: 50 Q: 85 X: custom			25: 2.5 V						
E: -30 K: 60 R: 90			30: 3.0 V						
			33: 3.3 V						

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