

## Datasheet

### DLE

### LVPECL THRU-HOLE CRYSTAL CLOCK OSCILLATOR

## FEATURES

- Thru-hole DIL 14 package
- Reduced jitter design without PLL and multiplier circuit
- Many options available
- Applications : SONET, xDSL, SDH, Set-top box,...

20.7 x 13.1 x 5.08 mm

20.7 x 13.1 x 7.48 mm



Item	Specification		
Frequency Range	0.75 MHz ~ 800 MHz		
Standard frequencies	76.8 ; 77.760 ; 81.92 ; 100 ; 122.880 ; 125 ; 150 ; 155.52 ; 156.25 MHz 184.32 ; 245.76 ; 250 ; 300 ; 311.04 ; 312.5 ; 320 ; 340 ; 400 ; 491.520 ; 622.080 MHz		
Output Logic	LVPECL		
Overall Frequency Stability*	± 20 ppm ~ ± 100 ppm (see options)		
Operating Temperature Range	0 ~ +70°C commercial application (see options) -40 ~ +85°C industrial application (see options)		
Supply Voltage Vdd	+3.3V ±5%		
Supply Current Idd	90 mA max		
Output Voltage HIGH VOH	Vdd-1.025 V min. ; Vdd-0.95 V typ. ; Vdd -0.88 V max		
Output Voltage LOW VOL	Vdd-1.810 V min. ; Vdd -1.70 V typ. ; Vdd - 1.62 V max		
Output Load	50 ohm to Vdd-2V		
Symmetry	45/55 %		
Rise Time/Fall Time Fr/Ff	0.3 ns typ. ; 1.0 ns max.		
Start-up Time	3 ms typ. ; 10 ms max.		
Phase Noise ( typical )	Offset	Frequency 122.880 MHz	Frequency 622.080 MHz
	10 Hz	-73 dBc / Hz	-64 dBc / Hz
	100 Hz	-100 dBc / Hz	-100 dBc / Hz
	1 kHz	-125 dBc / Hz	-132 dBc / Hz
	10 kHz	-145 dBc / Hz	-138 dBc / Hz
	100 kHz	-150 dBc / Hz	-140 dBc / Hz
Packing Unit	100 pcs / box		

**Customer specifications on request**

(\*) Includes initial tolerance @+25°C, stability over operating temperature, stability vs. load change, stability vs. supply change and one year aging.

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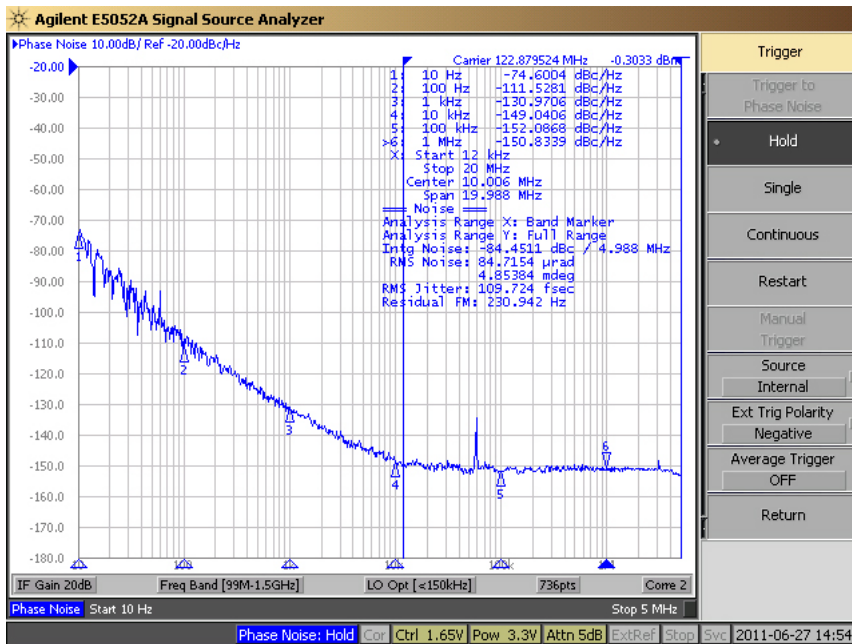
## OPTIONS & ORDERING INFORMATION

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Supply Voltage*	Operating Temp. *	Overall Stability *	Tri-state Function	Package height	Frequency in MHz
<b>33</b> = +3.3V	<b>A</b> = 0°/+50°C <b>D</b> = -10°/+60°C <b>E</b> = 0°/+70°C <b>F</b> = -20°/+70°C <b>G</b> = -30°/+75°C <b>H</b> = -30°/+85°C <b>K</b> = -40°/+85°C	<b>20</b> = ±20 ppm <b>25</b> = ±25 ppm <b>30</b> = ±30 ppm <b>50</b> = ±50 ppm <b>100</b> = ±100 ppm	<b>F</b> = no Tri-state	<b>H1</b> = 5.08 mm <b>H2</b> = 7.48 mm	Please specify the frequency in MHz

\* Note : Not all combinations are possible, please consult us.

## PHASE NOISE (122.880 MHz)

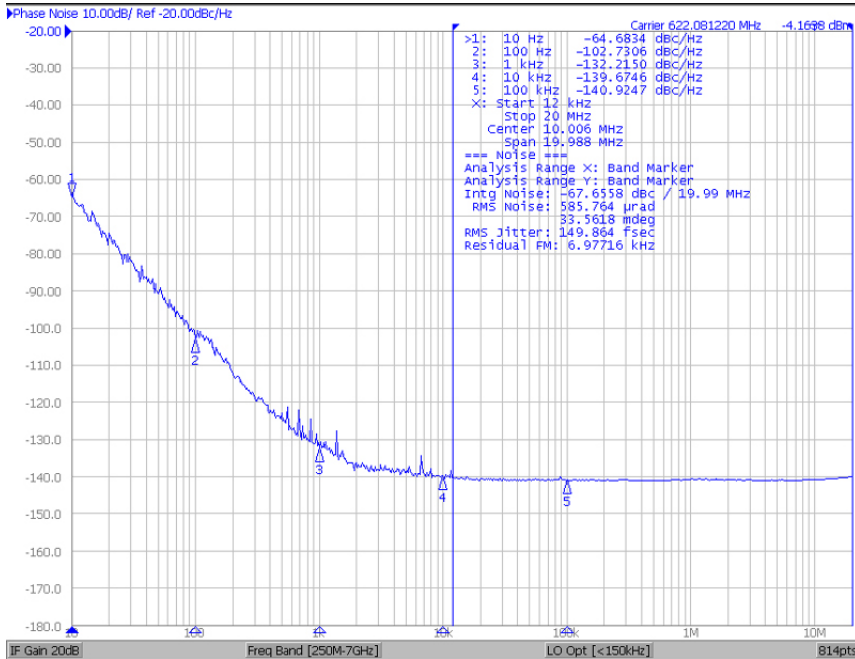


**Datasheet**

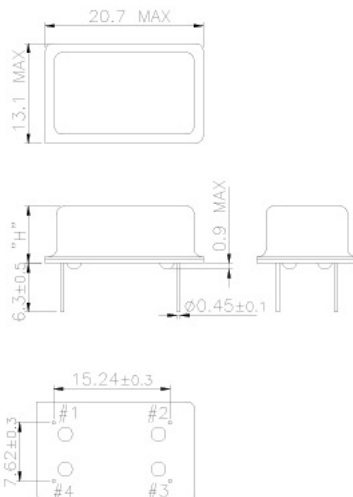
**DLE**

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**PHASE NOISE (622.080 MHz)**



**OUTLINE DIMENSIONS**



**Pin Connections** #1 : Complementary output #2 : GND #3: Output #4 : Vdd

Rev. 09-2012