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# **DT** 159.375 MHz LVDS Oscillator

High Performance Differential Oscillator

## 4MA159375Z4

### ADVANCE DATASHEET

#### **Features**

- Frequency:
- Output Type:
- Frequency Stability:
- Supply Voltage: • Standard Packages:

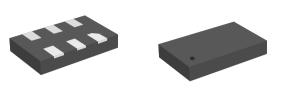
RMS phase jitter:

± 50ppm

LVDS

159.375 MHz

- 2.5V & 3.3V
- 5.0 x 3.2 mm; 7.0 x 5.0 mm
- 0.7ps typical (12k to 20MHz) - 40 to 85 °C
- Operating Temperature:



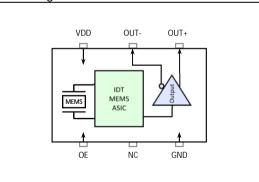
This product is rated "Green", please contact IDT for environmental compliancy information

#### Specification

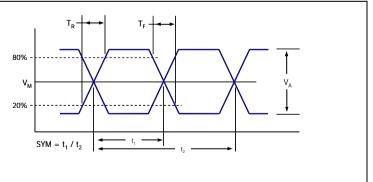
Parameter	2.5 V Specifications			3.3 V Specifications			Units	Conditions
	Min	Тур	Max	Min	Тур	Max	Ginto	
Supply Voltage (V <sub>DD</sub> )		2.50			3.30		V	
Output Frequency		159.375			159.375		MHz	
Frequency Stability			± 50			± 50	ppm	-40 to 85°C
Supply Current		95			95		mA	No load
Input LOW level			$0.3V_{\text{DD}}$			$0.3V_{\text{DD}}$	V	At OE pin
Input HIGH level	$0.\ 7V_{\text{DD}}$			$0.\;7V_{\text{DD}}$			V	At OE pin
Output LOW level		1.075			1.075		V	
Output HIGH level		1.425			1.425		V	
Amplitude (V <sub>A</sub> )		0.35			0.35		V	Single Ended output swing (Pk-Pk)
Mid Level (V <sub>M</sub> )		1.25			1.25		V	
Rise Time (T <sub>R</sub> )		400			400		ps	Maximum; 20/80% of V <sub>A</sub> ; Output load (CL) = 2pF
Fall Time (T <sub>F</sub> )		400			400		ps	Maximum; 20/80% of V <sub>A</sub> ; Output load (CL) = 2pF
Symmetry (SYM)	45		55	45		55	%	Worst case; measured at 50% of waveform
Period Jitter		5			5		ps	Measured over 10k cycles, rms
Phase Jitter			1			1	ps	12k to 20MHz, rms
Aging			± 5			± 5	ppm	25°C, 10 years

Note: Above specifications are typical at room temperature (25°C) unless otherwise specified. Frequency stability includes initial frequency tolerance, temperature variation, supply voltage variation, reflow drift, and aging (+25 °C, 10 years).

#### Block Diagram

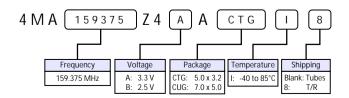


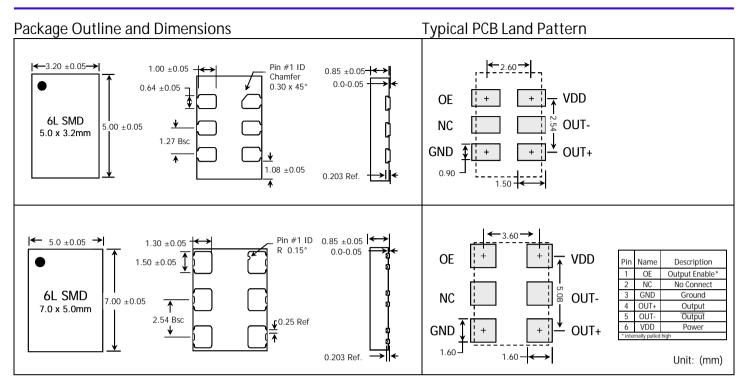
#### **Output Waveform**



#### Part Ordering Information

Package Size	Voltage	Ordering Code
5.0 x 3.2 mm	3.3 V	4MA159375Z4AACTGI
5.0 X 5.2 IIIII	2.5 V	4MA159375Z4BACTGI
7.0 x 5.0 mm	3.3 V	4MA159375Z4AACUGI
7.0 X 3.0 11111	2.5 V	4MA159375Z4BACUGI







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