

# Description

The SiT3373 is a 220.00001 MHz to 725 MHz differential MEMS VCXO engineered for low-jitter applications. Utilizing SiTime's unique DualMEMS® temperature sensing and TurboCompensation® technology, the SiT3373 delivers exceptional dynamic performance by providing resistance to airflow, thermal gradients, shock and vibration. This device also integrates multiple on-chip regulators to filter power supply noise, eliminating the need for a dedicated external LDO.

The SiT3373 can be factory programmed for any combination of frequency, stability, voltage, output signaling, and pull range. Programmability enables designers to optimize clock configurations while eliminating long lead times and customization costs associated with quartz devices where each frequency is custom built.

The wide frequency range and programmability makes this device ideal for telecom, networking, and industrial applications that require a variety of pullable frequencies and operate in noisy environments.

Refer to Manufacturing Notes for proper reflow profile, tape and reel dimension, and other manufacturing related information.

# **Features**

- Any frequency between 220.000001 MHz and 725 MHz accurate to 6 decimal places (For frequencies 1 MHz to 220 MHz, refer to SiT3372)
- Widest pull range options: ±25, ±50, ±80, ±100, ±150, ±200, ±400, ±800, ±1600, ±3200 ppm
- 0.225 ps RMS phase jitter (typ) over 12 kHz to 20 MHz bandwidth
- Frequency stability as low as ±15 ppm
- Wide temperature range support from -40°C to 105°C
- Industry-standard packages: 7.0 x 5.0 mm, 5.0 x 3.2 mm, 3.2 x 2.5 mm packages

# **Applications**

- Cable Modem Termination System (CMTS), Video, Broadcasting System, Audio, Industrial Sensors, Remote Radio Head (RRH)
- SATA, SAS, 10/40/100/400 Gbps Ethernet, Fibre Channel, PCI-Express
- Optical Transport Network (OTN)



# **Block Diagram**

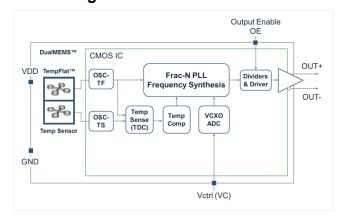


Figure 1. SiT3373 Block Diagram

# 3.2 x 2.5 mm Package Pinout

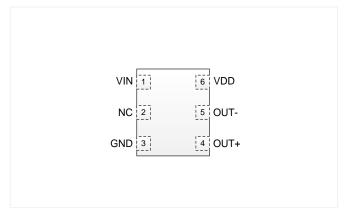
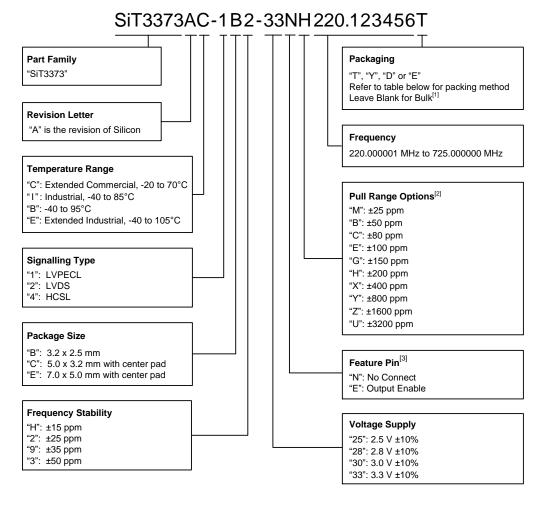


Figure 2. Pin Assignments (Top view) (Refer to Table 6 for Pin Descriptions)



# **Ordering Information**



- $1. \ \, \text{Bulk is available for sampling only}.$
- 2. Contact SiTime for custom pull range options.
- 3. "E": Output Enable function is only available in 7.0 x 5.0 mm and 5.0 x 3.2 mm packages.

Table 1. Ordering Codes for Supported Tape & Reel Packing Method

Device Size (mm x mm)	8 mm T&R (3ku)	8 mm T&R (1ku)	12 mm T&R (3ku)	12 mm T&R (1ku)	16 mm T&R (3ku)	16 mm T&R (1ku)
7.0 x 5.0	-	-	-	-	Т	Υ
5.0 x 3.2	-	-	Т	Υ	-	-
3.2 x 2.5	D	E	Т	Υ	-	-



# **TABLE OF CONTENTS**

Description	
Features	•
Applications	
Block Diagram	
Ordering Information	
Electrical Characteristics	
Waveform DiagramsTiming Diagrams	11
Termination Diagrams	12
LVPECL	12
LVDS	
HCSL	13
Dimensions and Patterns — 3.2 x 2.5 mm	14
Dimensions and Patterns — 5.0 x 3.2 mm	14
Dimensions and Patterns — 7.0 x 5.0 mm	15
Additional Information	16
Revision History	



# **Electrical Characteristics**

# Table 2. Electrical Characteristics - Common to LVPECL, LVDS and HCSL

All Min and Max limits in the Electrical Characteristics tables are specified over temperature and rated operating voltage with standard output termination shown in the termination diagrams. Typical values are at 25°C and nominal supply voltage.

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition		
		T	Fre	quency Ra	nge	<del>,</del>		
Output Frequency Range	f	220.000001	-	725	MHz	Accurate to 6 decimal places		
			Fre	quency Sta	bility			
Frequency Stability	F_stab	-15	-	+15	ppm	Inclusive of initial tolerance, operating temperature, rated		
		-25	-	+25	ppm	power supply voltage, load variations, and first year aging at 25°C, with VIN voltage at Vdd/2.		
		-35	-	+35	ppm	±15 ppm is only guaranteed for pull range up to ±100 ppm.		
		-50	-	+50	ppm			
			Ten	nperature R	ange			
Operating Temperature Range	T_use	-20	-	+70	°C	Extended Commercial		
		-40	-	+85	°C	Industrial		
		-40	-	+95	°C			
		-40	-	+105	°C	Extended Industrial		
Supply Voltage								
Supply Voltage	Vdd	2.97	3.30	3.63	V			
		2.70	3.00	3.30	V			
		2.52	2.80	3.08	V			
		2.25	2.50	2.75	V			
			Voltage C	ontrol Cha	racteristic	s		
Pull Range	PR	±25, ±50, ±80, ±100, ±150, ±200, ±400, ±800, ±1600, ±3200		ppm	See the APR (Absolute Pull Range) Table 11. Contact SiTime for custom pull range options			
Upper Control Voltage	VC_U	90%	-	-	Vdd	Voltage at which maximum frequency deviation is guaranteed		
Lower Control Voltage	VC_L	-	-	10%	Vdd	Voltage at which minimum frequency deviation is guaranteed		
Control Voltage Input Impedance	VC_z	-	10	ı	ΜΩ			
Control Voltage Input Bandwidth	V_c	-	10	-	kHz	Contact SiTime for other input bandwidth options		
Pull Range Linearity	Lin	-	-	1.0	%			
Frequency Change Polarity	-	Po	sitive Slope		-			
			Inpu	t Characte	ristics			
Input Voltage High	VIH	70%	-	-	Vdd	Pin 2, OE		
Input Voltage Low	VIL	-	-	30%	Vdd	Pin 2, OE		
Input Pull-up Impedance	Z_in	-	100	-	kΩ	Pin 2, OE logic high or logic low		
			Outp	ut Characte	eristics			
Duty Cycle	DC	45	-	55	%			
			Startu	up and OE	Timing			
Start-up Time	T_start	-	_	3.0	ms	Measured from the time Vdd reaches its rated minimum value.		
OE Enable/Disable Time	T_oe	-	-	3.8	μs	f = 322.265625 MHz. Measured from the time OE pin reaches rated VIH and VIL to the time clock pins reach 90% of swing and high-Z. See Figure 9 and Figure 10		



Table 3. Electrical Characteristics – LVPECL Specific

			•			
Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
			Cui	rrent Consu	ımption	
Current Consumption	ldd	-	_	97	mA	Excluding Load Termination Current, Vdd = 3.3 V or 2.5 V
OE Disable Supply Current	I_OE	-	_	63	mA	OE = Low
Output Disable Leakage Current	I_leak	_	0.15	_	μΑ	OE = Low
Maximum Output Current	I_driver	-	_	32	mA	Maximum average current drawn from OUT+ or OUT-
			Out	put Charac	teristics	
Output High Voltage	VOH	Vdd-1.15	_	Vdd-0.7	V	See Figure 5
Output Low Voltage	VOL	Vdd-1.9	_	Vdd-1.5	V	See Figure 5
Output Differential Voltage Swing	V_Swing	1.2	1.6	2.0	V	See Figure 6
Rise/Fall Time	Tr, Tf	_	225	290	ps	20% to 80%, see Figure 6
			Jitter -	7.0 x 5.0 m	m Packa	age
RMS Period Jitter <sup>[4]</sup>	T_jitt	-	1.0	1.6	ps	f = 322.265625 MHz, Vdd = 3.3 V or 2.5 V
RMS Phase Jitter (random)	T_phj	-	0.220	0.270	f = 322.265625 MHz, Integration bandwidth = 12 kHz tall Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -20 to 70°C and -40 to 85°C	
		_	0.220	0.300	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -40 to 95°C and -40 to 105°C
		_	0.1	-	ps	f = 156.25 or 322.265625 MHz, IEEE802.3-2005 10 GbE jitter mask integration bandwidth = 1.875 MHz to 20 MHz, all Vdd levels
		Jitter -	- 5.0 x 3.2	mm and 3.	2 x 2.5 n	nm Packages
RMS Period Jitter <sup>[4]</sup>	T_jitt	-	1.0	1.6	ps	f = 322.265625 MHz, Vdd = 3.3 V or 2.5 V
RMS Phase Jitter (random)	T_phj	_	0.225	0.282	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -20 to 70°C and -40 to 85°C
		_	0.225	0.315	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm.  Temperature ranges -40 to 95°C and -40 to 105°C
		_	0.1	_	ps	f = 322.265625 MHz, IEEE802.3-2005 10 GbE jitter mask integration bandwidth = 1.875 MHz to 20 MHz, all Vdd levels

<sup>4.</sup> Measured according to JESD65B.



Table 4. Electrical Characteristics – LVDS Specific

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition		
			Cur	rent Consu	umption			
Current Consumption	Idd	_	_	89	mA	Excluding Load Termination Current, Vdd = 3.3 V or 2.5 V		
OE Disable Supply Current	I_OE	-	-	67	mA	OE = Low		
Output Disable Leakage Current	I_leak	ı	0.15	-	μΑ	OE = Low		
	Output Characteristics							
Differential Output Voltage	VOD	250	-	450	mV	See Figure 7		
Delta VOD	ΔVOD	-	-	50	mV	See Figure 7		
Offset Voltage	VOS	1.125	-	1.375	V	See Figure 7		
Delta VOS	ΔVOS	-	-	50	mV	See Figure 7		
Rise/Fall Time	Tr, Tf	ı	370	470	ps	Measured with 2 pF capacitive loading to GND, 20% to 80%, see Figure 8		
			Jitter –	7.0 x 5.0 m	ım packa	age		
RMS Period Jitter <sup>[5]</sup>	T_jitt	-	0.92	1.6	ps	f = 322.265625 MHz, Vdd = 3.3V or 2.5V		
RMS Phase Jitter (random)	T_phj	-	0.215	0.265	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -20 to 70°C and -40 to 85°C		
		ı	0.215	0.280	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -40 to 95°C and -40 to 105°C		
		-	0.1	-	ps	f = 322.265625 MHz, IEEE802.3-2005 10 GbE jitter mask integration bandwidth = 1.875 MHz to 20 MHz, includes spurs, all Vdd levels		
		Jitter	– 5.0 x 3.2 ı	mm and 3.	2 x 2.5 m	nm packages		
RMS Period Jitter <sup>[5]</sup>	T_jitt	-	0.92	1.6	ps	f = 322.265625 MHz, Vdd = 3.3 V or 2.5 V		
RMS Phase Jitter (random)	T_phj	ı	0.235	0.282	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -20 to 70°C and -40 to 85°C		
		_	0.235	0.310	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -40 to 95°C and -40 to 105°C		
		_	0.1	-	ps	f = 322.265625 MHz, IEEE802.3-2005 10 GbE jitter mask integration bandwidth = 1.875 MHz to 20 MHz, includes spurs, all Vdd levels		

Notes:
5. Measured according to JESD65B.



Table 5. Electrical Characteristics – HCSL Specific

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
			Cui	rrent Consi	umption	
Current Consumption	ldd	-	-	102	mA	Excluding Load Termination Current, Vdd = 3.3 V or 2.5 V
OE Disable Supply Current	I_OE	ı	-	67	mA	OE = Low
Output Disable Leakage Current	l_leak	ı	0.15	-	μΑ	OE = Low
			Out	tput Chara	cteristics	s
Output High Voltage	VOH	0.6	-	0.90	V	See Figure 5
Output Low Voltage	VOL	-0.05	-	0.08	V	See Figure 5
Output Differential Voltage Swing	V_Swing	1.2	1.4	1.8	V	See Figure 6
Rise/Fall Time	Tr, Tf	ı	360	470	ps	Measured with 2 pF capacitive loading to GND, 20% to 80%, see Figure 6
			Jitter -	- 7.0 x 5.0 r	nm pack	kage
RMS Period Jitter <sup>[6]</sup>	T_jitt	-	1.0	1.6	ps	f = 322.265625 MHz, Vdd = 3.3 V or 2.5 V
RMS Phase Jitter (random)	T_phj	-	0.215	0.265	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, Pull Range = ±100 ppm
		-	0.215	0.282	ps	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -20 to 70°C and -40 to 85°C
		I	0.1	_	ps	f = 322.265625 MHz, IEEE802.3-2005 10 GbE jitter mask integration bandwidth = 1.875 MHz to 20 MHz, includes spurs, all Vdd levels
		Jitter	- 5.0 x 3.2	mm and 3	.2 x 2.5 r	mm packages
RMS Period Jitter <sup>[6]</sup>	T_jitt	1	1.0	1.6	ps	f = 322.265625 MHz, Vdd = 3.3 V or 2.5 V
RMS Phase Jitter (random)	T_phj	I	0.235	0.282	0.215	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm. Temperature ranges -20 to 70°C and -40 to 85°C
		ı	0.235	0.305	0.215	f = 322.265625 MHz, Integration bandwidth = 12 kHz to 20 MHz, all Vdd levels, includes spurs, pull range = ±100 ppm.  Temperature ranges -40 to 95°C and -40 to 105°C
		ı	0.1	_	0.1	f = 322.265625 MHz, IEEE802.3-2005 10 GbE jitter mask integration bandwidth = 1.875 MHz to 20 MHz, includes spurs, all Vdd levels

### Notes:

6. Measured according to JESD65B.



**Table 6. Pin Description** 

Pin	Symbol	Functionality				
1	VIN	Input	Control Voltage			
		No Connect (NC)	No Connect: Leave floating or connect to GND for better heat dissipation. NC for all 3.2 x 2.5 mm package options.			
2	2 NC/OE Output Enable (OE)		H <sup>[7,8]</sup> : specified frequency output L: output is high impedance. Only output driver is disabled. OE function only available on 7050 and 5032 packages. Pin 2 on 3225 package is NC.			
3	GND	Power	Vdd Power Supply Ground			
4	OUT+	Output	Oscillator output			
5	OUT-	Output	Complementary oscillator output			
6	VDD	Power	Power supply voltage <sup>[9]</sup>			

# Top View Top View VIN 1 | 6 | VDD VIN 1 | 6 | VDD NC/OE [1] 2 | 5 | OUT NC [2] 2 | 5 | OUT GND 3 | 4 | OUT+ GND 3 | 4 | OUT+

Figure 3. Pin Assignments (7.0 x 5.0 mm and 5.0 x 3.2 mm packages)

Figure 4. Pin Assignments (3.2 x 2.5 mm package)

- 7. A pull-up resistor of 10  $k\Omega$  or less is recommended if pin 1 is not externally driven.
- 8. OE mode is only available in the 7050 and 5032 packages. 3225 package is NC.
- 9. A capacitor of value 0.1 μF or higher between VDD and GND is required. An additional 10 μF capacitor between VDD and GND is required for the best phase jitter performance.



# **Table 7. Absolute Maximum Ratings**

Attempted operation outside the absolute maximum ratings may cause permanent damage to the part.

Actual performance of the IC is only guaranteed within the operational specifications, not at absolute maximum ratings.

Parameter	Min.	Max.	Unit
Continuous Power Supply Voltage Range (Vdd)	-0.5	4.0	V
Input Voltage, Maximum (any input pin)		Vdd + 0.3V	V
Input Voltage, Minimum (any input pin)	-0.3		V
Storage Temperature	-65	150	°C
Maximum Junction Temperature		145	°C
Soldering Temperature (follow standard Pb-free soldering guidelines)		260	°C

# Table 8. Thermal Considerations[10]

Package	θ <sub>JA</sub> , 4 Layer Board (°C/W)	θ <sub>JC</sub> , Bottom (°C/W)
3225, 6-pin	80	30
5032, 6-pin	53 <sup>[11]</sup>	20
7050, 6-pin	52 <sup>[11]</sup>	19

### Notes:

- 10. Refer to JESD51 for  $\theta$ JA and  $\theta$ JC definitions, and reference layout used to determine the  $\theta$ JA and  $\theta$ JC values in the above table.
- 11. Value for  $\theta_{JA}$  assumes the center pad is soldered down.

# Table 9. Maximum Operating Junction Temperature<sup>[12]</sup>

Max Operating Temperature (ambient)	Maximum Operating Junction Temperature: 3225 Package	Maximum Operating Junction Temperature: 5032, 7050 Packages
70°C	105°C	95°C
85°C	130°C	110°C
95°C	130°C	120°C
105°C	145°C	130°C

# Notes:

# **Table 10. Environmental Compliance**

Table 16. Environmental Compilation							
Parameter	Test Conditions	Value	Unit				
Mechanical Shock Resistance	MIL-STD-883F, Method 2002	10,000	g				
Mechanical Vibration Resistance	MIL-STD-883F, Method 2007	70	g				
Soldering Temperature (follow standard Pb free soldering guidelines)	MIL-STD-883F, Method 2003	260	°C				
Moisture Sensitivity Level	MSL1 @ 260°C						
Electrostatic Discharge (HBM)	HBM, JESD22-A114	2,000	V				
Charge-Device Model ESD Protection	JESD220C101	750	V				
Latch-up Tolerance	JESD78 Compliant						

<sup>12.</sup> Datasheet specifications are not guaranteed if junction temperature exceeds the maximum operating junction temperature.



# **Waveform Diagrams**

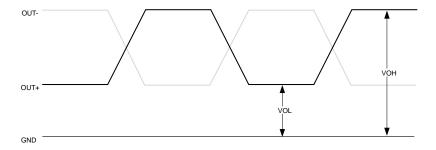


Figure 5. LVPECL, HCSL Voltage Levels per Differential Pin (i.e. OUT+, or OUT-)

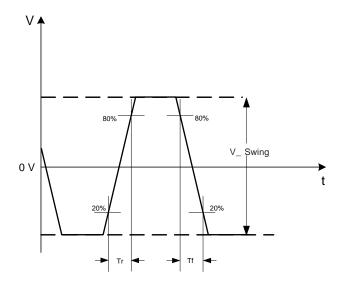


Figure 6. LVPECL, HCSL Voltage Levels across Differential Pair (i.e. OUT+ minus OUT-)



# **Waveform Diagrams (continued)**

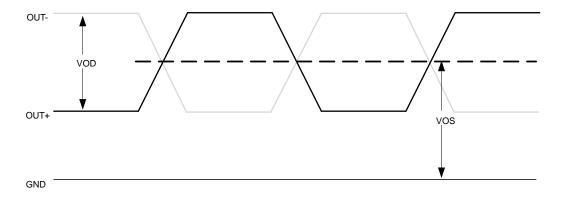


Figure 7. LVDS Voltage Levels per Differential Pin (i.e. OUT+, or OUT-)

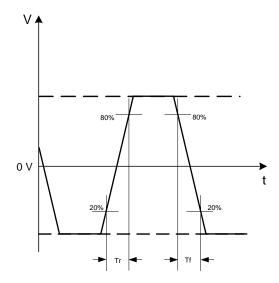


Figure 8. LVDS Differential Waveform (i.e. OUT+ minus OUT-)

# **Timing Diagrams**

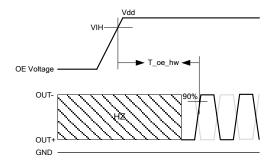


Figure 9. Hardware OE Enable Timing

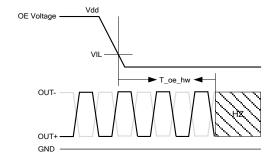


Figure 10. Hardware OE Disable Timing



# **Termination Diagrams**

# **LVPECL**

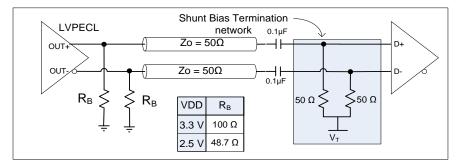


Figure 11. LVPECL with AC-coupled termination

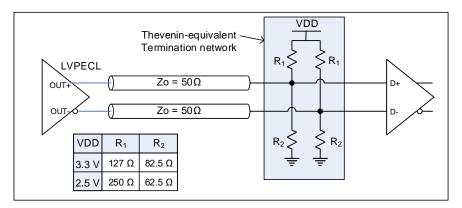


Figure 12. LVPECL DC-coupled load termination with Thevenin equivalent network

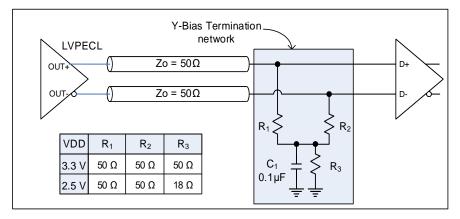


Figure 13. LVPECL with Y-Bias termination

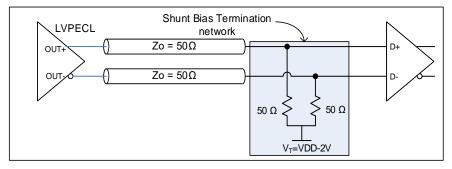


Figure 14. LVPECL with DC-coupled parallel shunt load termination



# **Termination Diagrams (continued)**

# **LVDS**

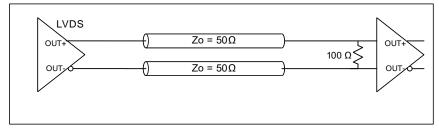


Figure 15. LVDS single DC termination at the load

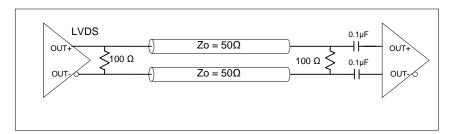


Figure 16. LVDS double AC termination with capacitor close to the load

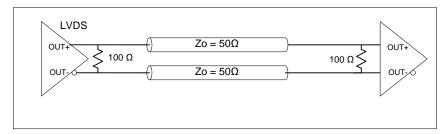


Figure 17. LVDS double DC termination

# **HCSL**

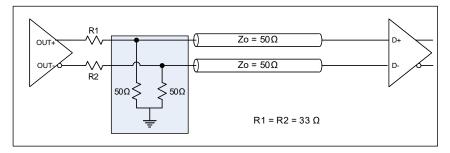
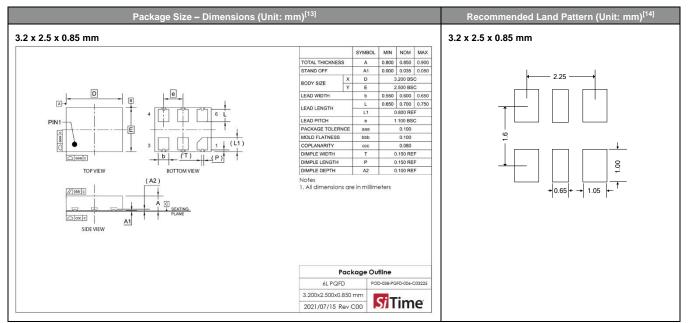


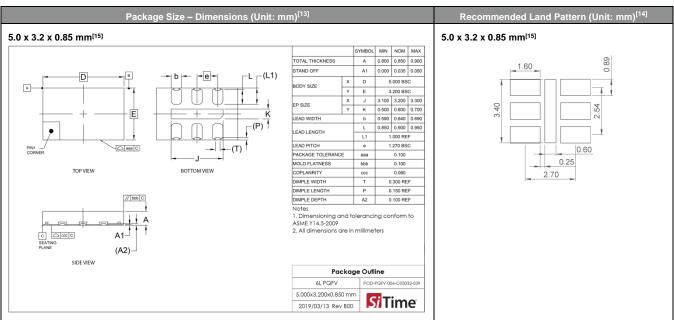
Figure 18. HCSL interface termination



# Dimensions and Patterns — 3.2 x 2.5 mm



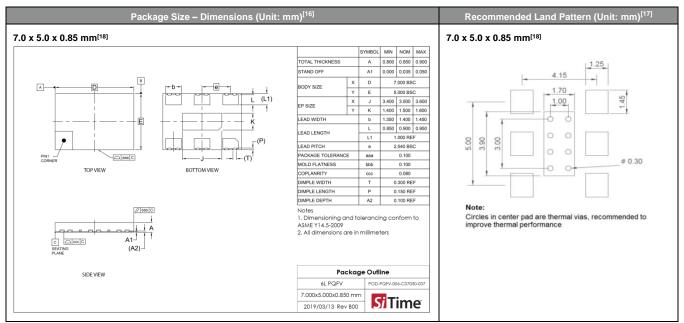
# Dimensions and Patterns — 5.0 x 3.2 mm



- 13. Top Marking: Y denotes manufacturing origin and XXXX denotes manufacturing lot number. The value of "Y" will depend on the assembly location of the device
- 14. A capacitor of value 0.1 μF or higher between VDD and GND is required. An additional 10 μF capacitor between VDD and GND is required for the best phase jitter performance.
- 15. The center pad is internally connected to the GND pin. Soldering down the center pad to the GND is recommended for best thermal dissipation, but is optional.



# Dimensions and Patterns — 7.0 x 5.0 mm



- 16. Top Marking: Y denotes manufacturing origin and XXXX denotes manufacturing lot number. The value of "Y" will depend on the assembly location of the device
- 17. A capacitor of value 0.1  $\mu$ F or higher between VDD and GND is required. An additional 10  $\mu$ F capacitor between VDD and GND is required for the best phase jitter performance.
- 18. The center pad is internally connected to the GND pin. Soldering down the center pad to the GND is recommended for best thermal dissipation, but is optional.



Table 11. APR Table

Absolute pull range (APR) = Nominal pull range (PR) - frequency stability (F\_stab) - aging[19]

	Frequency Stability						
Nominal Pull Range	±15	±25	±35	±50			
		APR	(ppm)				
±25	±5	_	ı	_			
±50	±30	±20	±10	_			
±80	±60	±50	±40	±25			
±100	±80	±70	±60	±45			
±150	_	±120	±110	±95			
±200	_	±170	±160	±145			
±400	_	±370	±360	±345			
±800	_	±770	±760	±745			
±1600	_	±1570	±1560	±1545			
±3200	_	±3170	±3160	±3145			

# **Additional Information**

# **Table 12. Additional Information**

Document	Description	Download Link	
ECCN #: EAR99	Five character designation used on the commerce Control List (CCL) to identify dual use items for export control purposes.	_	
HTS Classification Code: 8542.39.0000	A Harmonized Tariff Schedule (HTS) code developed by the World Customs Organization to classify/define internationally traded goods.		
Part number Generator	Tool used to create the part number based on desired features.	https://www.sitime.com/part-number-generator	
Time Machine II	MEMS oscillator programmer	http://www.sitime.com/support/time-machine-oscillator-programmer	
Manufacturing Notes	Tape & Reel dimension, reflow profile and other manufacturing related info	https://www.sitime.com/sites/default/files/gated/Manufacturing-Notes-for-SiTime-Products.pdf	
Qualification Reports	RoHS report, reliability reports, composition reports	http://www.sitime.com/support/quality-and-reliability	
Performance Reports	Additional performance data such as phase noise, current consumption, and jitter for selected frequencies	http://www.sitime.com/support/performance-measurement-report	
Termination Techniques	AN10029Termination design recommendations	http://www.sitime.com/support/application-notes	
Layout Techniques	AN10006 Layout recommendations	http://www.sitime.com/support/application-notes	
Evaluation Boards	SiT6085EB, SiT6086EB and SiT6097EB for Differential Oscillators	https://www.sitime.com/support/user-guides	

Note:
19. Aging includes solder down shift and 20-year aging.



# **Revision History**

# **Table 13. Revision History**

Revision	Release Date	Change Summary
1.0	13-Oct-2017	Initial release
1.01	2-Feb-2018	Corrected ppm ordering codes.
		Corrected minor formatting errors.
		Added Additional Information table.
		Added Extended Industrial temperature range (-40°C – 95°C and -40°C – 105°C)
1.03	10-May-2018	Updated the Part Ordering info with added 5.0 x 3.2 mm package
1.04	29-Oct-2018	±15 ppm option
1.05	7-Jun-2020	Formatting updates
		Corrected typos
		Updated package Dimensions Drawings
		Updated Table 8 Thermal Considerations for 5032 package
		Added Evaluation Boards SiT6085EB reference in Additional Information
		Rearranged layout, added Description, Block Diagram and TOC
		Added HTS classification code
		Clarified ±15 ppm pull range up to ±100 ppm
		Modified maximum junction temperatures
		Removed I_driver HCSL specification as not applicable
1.06	17-Mar-2021	Updated L1 and Dimple Width package dimensions for 3.2 x 2.5 mm package
		Updated trademarks and changed rev table date format
1.07	20-Jul-2021	Updated pin direction in package dimensions for 3.2 x 2.5 mm package

# **SiTime Corporation**, 5451 Patrick Henry Drive, Santa Clara, CA 95054, USA | **Phone**: +1-408-328-4400 | **Fax**: +1-408-328-4439

© SiTime Corporation 2017-2021. The information contained herein is subject to change at any time without notice. SiTime assumes no responsibility or liability for any loss, damage or defect of a Product which is caused in whole or in part by (i) use of any circuitry other than circuitry embodied in a SiTime product, (ii) misuse or abuse including static discharge, neglect or accident, (iii) unauthorized modification or repairs which have been soldered or altered during assembly and are not capable of being tested by SiTime under its normal test conditions, or (iv) improper installation, storage, handling, warehousing or transportation, or (v) being subjected to unusual physical, thermal, or electrical stress.

Disclaimer: SiTime makes no warranty of any kind, express or implied, with regard to this material, and specifically disclaims any and all express or implied warranties, either in fact or by operation of law, statutory or otherwise, including the implied warranties of merchantability and fitness for use or a particular purpose, and any implied warranty arising from course of dealing or usage of trade, as well as any common-law duties relating to accuracy or lack of negligence, with respect to this material, any SiTime product and any product documentation. Products sold by SiTime are not suitable or intended to be used in a life support application or component, to operate nuclear facilities, or in other mission critical applications where human life may be involved or at stake. All sales are made conditioned upon compliance with the critical uses policy set forth below.

### CRITICAL USE EXCLUSION POLICY

BUYER AGREES NOT TO USE SITIME'S PRODUCTS FOR ANY APPLICATION OR IN ANY COMPONENTS USED IN LIFE SUPPORT DEVICES OR TO OPERATE NUCLEAR FACILITIES OR FOR USE IN OTHER MISSION-CRITICAL APPLICATIONS OR COMPONENTS WHERE HUMAN LIFE OR PROPERTY MAY BE AT STAKE.

SiTime owns all rights, title and interest to the intellectual property related to SiTime's products, including any software, firmware, copyright, patent, or trademark. The sale of SiTime products does not convey or imply any license under patent or other rights. SiTime retains the copyright and trademark rights in all documents, catalogs and plans supplied pursuant to or ancillary to the sale of products or services by SiTime. Unless otherwise agreed to in writing by SiTime, any reproduction, modification, translation, compilation, or representation of this material shall be strictly prohibited.

# **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

# SiTime:

<u>SiT3373AI-1E2-33EG644.531250X</u> <u>SiT3373AC-2E3-25NZ622.000000X</u> <u>SiT3373AI-2B2-33NG250.000000X</u> SiT3373AI-4E2-33NH540.000000X SiT3373AI-2B2-33NB644.531250Y