Pin Description Tables

Pin #1 Functionality
OE
H or Open[2]: specified frequency output
L: output is high impedance
$\overline{ST}$
H or Open: specified frequency output
L: output is low level (weak pull down). Oscillation stops

Pin Map	
Pin	**Connection**
1	OE/$\overline{ST}$
2	GND
3	CLK
4	VDD

Absolute Maximum Table

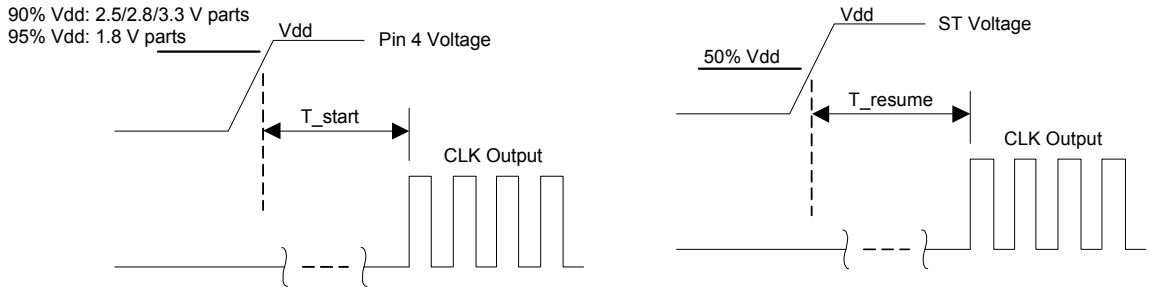
Attempted operation outside the absolute maximum ratings of the part may cause permanent damage to the part. Actual performance of the IC is only guaranteed within the operational specifications, not at absolute maximum ratings.

Parameter	Min.	Max.	Unit
Storage Temperature	-65	150	°C
VDD	-0.5	4	V
Electrostatic Discharge	–	6000	V
Theta JA (with copper plane on VDD and GND)	–	75	°C/W
Theta JC (with PCB traces of 0.010 inch to all pins)	–	24	°C/W
Soldering Temperature (follow standard Pb free soldering guidelines)	–	260	°C
Number of Program Writes	–	1	NA
Program Retention over -40 to 125°C, Process, VDD (0 to 3.65 V)	1,000+	–	years

Environmental Compliance

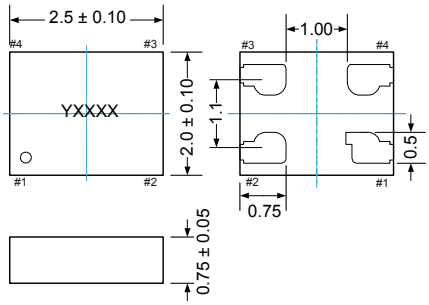
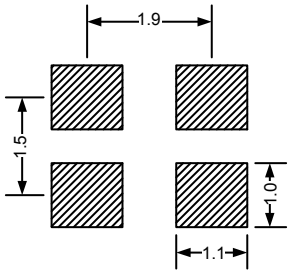
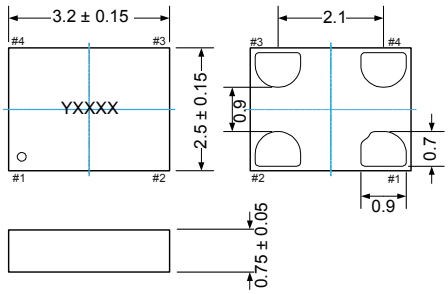
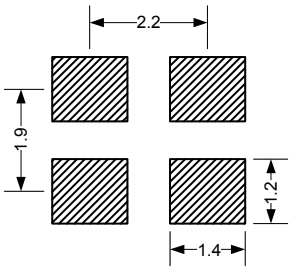
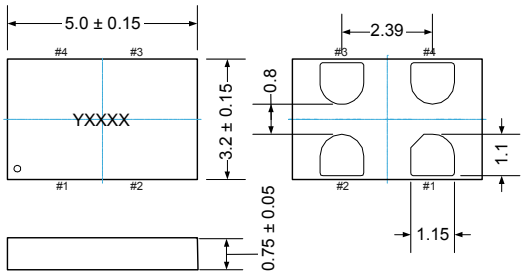
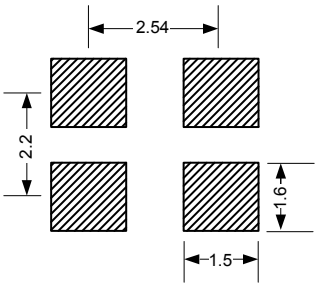
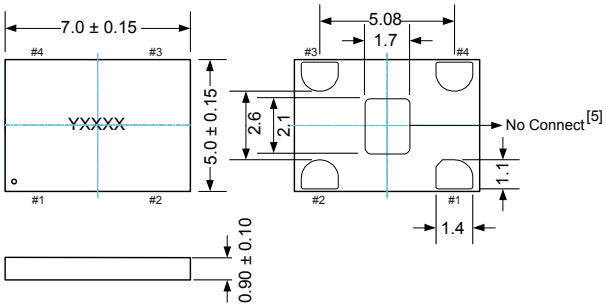
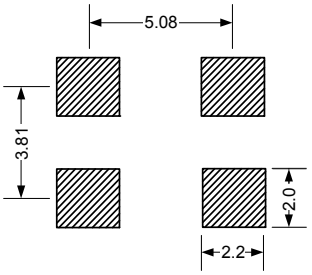
Parameter	Condition/Test Method
Mechanical Shock	MIL-STD-883F, Method 2002
Mechanical Vibration	MIL-STD-883F, Method 2007
Temperature Cycle	JESD22, Method A104
Solderability	MIL-STD-883F, Method 2003
Moisture Sensitivity Level	MSL1 @ 260°C

Startup and Resume Timing Diagram



Note:
2. In 1.8 V mode, a resistor of <100 kΩ between OE pin and VDD is required.

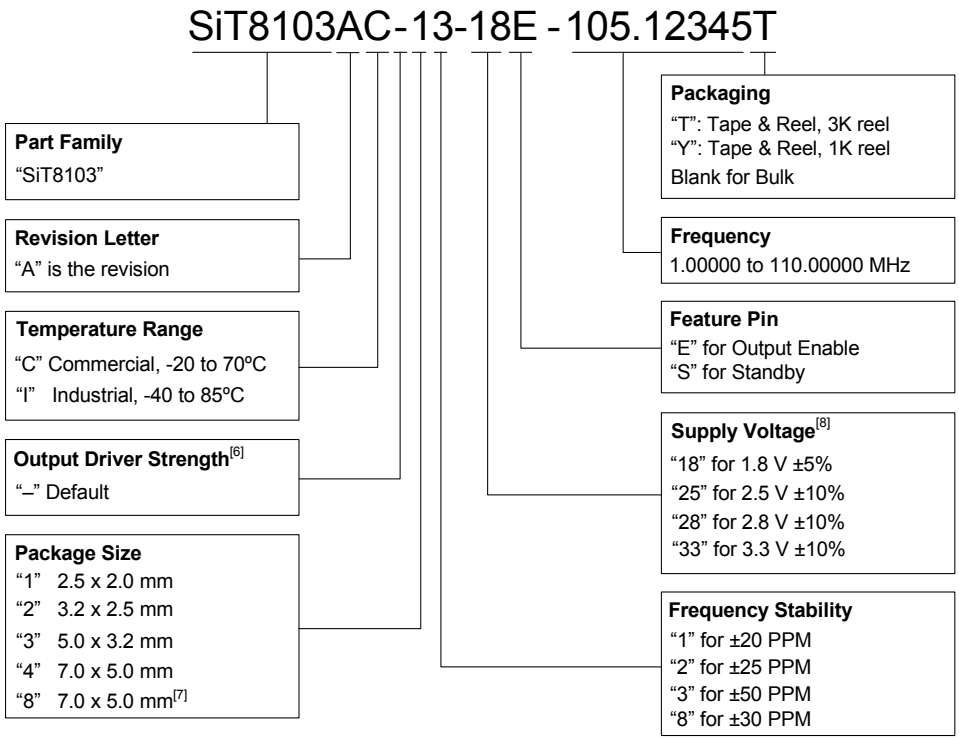
■ Dimensions and Land Patterns

Package Size – Dimensions (Unit: mm)[]	Recommended Land Pattern (Unit: mm)[5]
2.5 x 2.0 x 0.75 mm	
	
3.2 x 2.5 x 0.75 mm	
	
5.0 x 3.2 x 0.75 mm	
	
7.0 x 5.0 x 0.90 mm	
	

Notes:
3. 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
4. A capacitor of value 0.1 µF between Vdd and GND is recommended.
5. The 7050 package with part number designation "-8" has NO center pad.

Part No. Guide - How to Order

The Part No. Guide is for reference only. For real-time customization and exact part number, use the SiTime Part Number Generator.



Notes:
6. Contact SiTime for different drive strength options for driving loads with faster rise/fall time spec than those shown in the electrical table, or reducing EMI.
7. Without Center Pad.
8. Supply voltage can be configured to any voltage up to 1 decimal place between 2.5V and 3.3V.

Frequency Stability vs. Temperature Range Options

Frequency Stability (PPM)	Temperature Range	Supply Voltage			
		1.8 V	2.5 V	2.8 V	3.3 V
±20	C (-20 to +70°C)	✓	✓	✓	✓
	I (-40 to +85°C)	–	–	–	–
±25	C (-20 to +70°C) I (-40 to +85°C)	✓	✓	✓	✓
±30	C (-20 to +70°C) I (-40 to +85°C)	✓	✓	✓	✓
±50	C (-20 to +70°C) I (-40 to +85°C)	✓	✓	✓	✓