Field Programmable Oscillator



Ordering Information

Field Programmable Oscillators

In this family of products SiTime offers low power, high performance field programmable devices with single-ended and differential outputs.

For example, The filed programmable single-ended oscillator, SiT8008AI-11-XXX-000.FP000, allows user to program any frequency between 1 to 110 MHz with any stability of ±20, ±25, or ±50 PPM over industrial or extended commercial temperature range and any voltage supply of 1.8V, 2.5V, 2.8V, 3.3V, in a 2.5 x 2.0 (mmxmm) standard 4-pin oscillator package.

Oscillator Product Family	Field Programmable (FP) Part Number	Package Size (mm x mm)	Frequency Range (MHz)	Frequency Stability (PPM)	Temp Range (°C)	Voltage (V)	Other Supported Devices/Features
	SiT8008AI-71-XXX-000.FP000	2.0 x 1.6	1 to 110	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT1602
Low Power	SiT8008AI-11-XXX-000.FP000	2.5 x 2.0	1 to 110	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT1602
Single-Ended Oscillator	SiT8008AI-21-XXX-000.FP000	3.2 x 2.5	1 to 110	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT1602
SiT8008FP	SiT8008AI-31-XXX-000.FP000	5.0 x 3.2	1 to 110	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT1602
	SiT8008AI-81-XXX-000.FP000	7.0 x 5.0	1 to 110	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT1602
	SiT8208AI-G1-XXX-000.FP000	2.5 x 2.0	1 to 80	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
	SiT8208AI-21-XXX-000.FP000	3.2 x 2.5	1 to 80	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
Ultra Performance	SiT8208AI-31-XXX-000.FP000	5.0 x 3.2	1 to 80	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
Single-Ended Oscillator	SiT8208AI-81-XXX-000.FP000	7.0 x 5.0	1 to 80	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
SiT8208FP SiT8209FP	SiT8209AI-G1-XXX-000.FP000	2.5 x 2.0	80 to 220	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
3110209FF	SiT8209AI-21-XXX-000.FP000	3.2 x 2.5	80 to 220	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
	SiT8209AI-31-XXX-000.FP000	5.0 x 3.2	80 to 220	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
	SiT8209AI-81-XXX-000.FP000	7.0 x 5.0	80 to 220	±20, ±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
	SiT9121AI-1C1-XXX000.FP000	5.0 x 3.2	1 to 220	±20, ±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	SiT9120 LVPECL
	SiT9121AI-1D1-XXX000.FP000	7.0 x 5.0	1 to 220	±20, ±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	SiT9120 LVPECL
High Performance Differential Oscillator	SiT9121AI-2C1-XXX000.FP000	5.0 x 3.2	1 to 220	±20, ±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	SiT9120 LVDS
SiT9121FP SiT9122FP	SiT9121AI-2D1-XXX000.FP000	7.0 x 5.0	1 to 220	±20, ±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	SiT9120 LVDS
	SiT9122AI-1C1-XXX000.FP000	5.0 x 3.2	220 - 625	±20, ±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVPECL
	SiT9122AI-1D1-XXX000.FP000	7.0 x 5.0	220 - 625	±20, ±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVPECL
	SiT9122AI-2C1-XXX000.FP000	5.0 x 3.2	220 - 625	±20, ±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVDS
	SiT9122AI-2D1-XXX000.FP000	7.0 x 5.0	220 - 625	±20, ±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVDS

Field Programmable Oscillator



Ordering Information (continued)

VCXO Field Programmable Devices

In this family of products SiTime offers high performance field programmable Voltage Controlled devices with single-ended and differential outputs.

VCXO Product Family	Field Programmable (FP) Part Number	Package Size (mm x mm)	Frequency Range (MHz)	Frequency Stability (PPM)	Temp Range (°C)	Voltage (V)	Other Supported Devices/Features
	SiT3808AI-G2-XXXX-000.FP000	2.5 x 2.0	1 to 80	±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT3807
	SiT3808AI-22-XXXX-000.FP000	3.2 x 2.5	1 to 80	±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT3807
High Performance	SiT3808AI-C2-XXXX-000.FP000	5.0 x 3.2	1 to 80	±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT3807
Single-Ended VCXO	SiT3808AI-D2-XXXX-000.FP000	7.0 x 5.0	1 to 80	±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	SiT3807
SiT3808FP SiT3809FP	SiT3809AI-G2-XXXX-000.FP000	2.5 x 2.0	80 to 220	±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
3113009FF	SiT3809AI-22-XXXX-000.FP000	3.2 x 2.5	80 to 220	±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
	SiT3809AI-C2-XXXX-000.FP000	5.0 x 3.2	80 to 220	±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
	SiT3809Al-D2-XXXX-000.FP000	7.0 x 5.0	80 to 220	±25, ±50	-40 to 85, -20 to 70	1.8V, 2.5-3.3V	NA
	SiT3821AI-1C2-XXXX000.FP000	5.0 x 3.2	1 to 220	±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVPECL
	SiT3821AI-1D2-XXXX000.FP000	7.0 x 5.0	1 to 220	±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVPECL
High Performance	SiT3821AI-2C2-XXXX000.FP000	5.0 x 3.2	1 to 220	±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVDS
Differential VCXO	SiT3821AI-2D2-XXXX000.FP000	7.0 x 5.0	1 to 220	±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVDS
SiT3821FP SiT3822FP	SiT3822AI-1C2-XXXX000.FP000	5.0 x 3.2	220 -625	±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVPECL
3113022FF	SiT3822AI-1D2-XXXX000.FP000	7.0 x 5.0	220 -625	±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVPECL
	SiT3822A-2C2-XXXX000.FP000	5.0 x 3.2	220 -625	±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVDS
	SiT3822AI-2D2-XXXX000.FP000	7.0 x 5.0	220 -625	±25, ±50	-40 to 85, -20 to 70	2.5V, 3.3V	LVDS

Spread Spectrum Field Programmable Oscillators

In this family of products SiTime offers field programmable spread spectrum devices with single-ended and differential outputs.

Spread Spectrum Product Family	Field Programmable (FP) Part Number	Package Size (mm x mm)	Frequency Range (MHz)	Frequency Stability (PPM)	Temp Range (°C)	Voltage (V)	Spread Percentage			
	SiT9001AI-13-XXXX-000.FP000	2.5 x 2.0	1 to 220	±50, ±100	-40 to 85, -20 to 70	1.8V, 2.5V, 3.3V				
	SiT9001AI-23-XXXX-000.FP000	3.2 x 2.5	1 to 220	±50, ±100	-40 to 85, -20 to 70	1.8V, 2.5V, 3.3V	±0.25% to -±1%			
	SiT9001AI-33-XXXX-000.FP000	5.0 x 3.2	1 to 220	±50, ±100	-40 to 85, -20 to 70	1.8V, 2.5V, 3.3V	-0.5% to -2%			
	SiT9001AI-83-XXXX-000.FP000	7.0 x 5.0	1 to 220	±50, ±100	-40 to 85, -20 to 70	1.8V, 2.5V, 3.3V				
Spread Speatrum	SiT9003AI-13-33XX-000.FP000	2.5 x 2.0	1 to 110	±50, ±100	-40 to 85, -20 to 70	2.5V, 3.3V	±0.25% to -±0.5% -0.5% to -1%			
Spread Spectrum Single-Ended Oscillator	SiT9003AI-23-33XX-000.FP000	3.2 x 2.5	1 to 110	±50, ±100	-40 to 85, -20 to 70	2.5V, 3.3V				
SiT9001FP	SiT9003AI-33-33XX-000.FP000	5.0 x 3.2	1 to 110	±50, ±100	-40 to 85, -20 to 70	2.5V, 3.3V				
SiT9003FP	SiT9003AI-83-33XX-000.FP000	7.0 x 5.0	1 to 110	±50, ±100	-40 to 85, -20 to 70	2.5V, 3.3V				
	SiT9003AI-13-18XX-000.FP000	2.5 x 2.0	1 to 110	±50, ±100	-40 to 85, -20 to 70	1.8V				
	SiT9003AI-23-18XX-000.FP000	3.2 x 2.5	1 to 110	±50, ±100	-40 to 85, -20 to 70	1.8V				
	SiT9003AI-33-18XX-000.FP000	5.0 x 3.2	1 to 110	±50, ±100	-40 to 85, -20 to 70	1.8V				
	SiT9003AI-83-18XX-000.FP000	7.0 x 5.0	1 to 110	±50, ±100	-40 to 85, -20 to 70	1.8V				
Spread Spectrum	SiT9002Al-X32XXXXX000.FP000	5.0 x 3.2	1 to 220	±50, ±100	-40 to 85, -20 to 70	1.8V, 2.5V, 3.3V	±0.25% to -±2%			
Differential Oscillator SiT9002FP	SiT9002AI-X82XXXXX000.FP000	7.0 x 5.0	1 to 220	±50, ±100	-40 to 85, -20 to 70	1.8V, 2.5V, 3.3V	-0.5% to -4%			

Field Programmable Oscillator



Programmer Kit Ordering Information

Device Name	Part Number	Description
Time Machine II Programming Kit	SiT6100DK	Supported Devices: SiT1602, SiT8008, SiT8208, SiT8209, SiT3807, SiT3808, SiT3809, SiT9120, SiT9121, SiT9122, SiT3821, SiT3822, SiT9001, SiT9003
Programmer Base	SiT6150DK	The base programmer with no sockets
Socket Card	SiT6161DK	2.0x1.6 and 2.5x2.0 packages programming sockets to program all 6-in and 4-pin filed programmable devices
Socket Card	SiT6162DK	2.7x2.4 (2.5x2.0 compatible, "G" code in part #) and 3.2x2.5 packages programming sockets to program all filed programmable 4-pin devices
Socket Card	SiT6160DK	5.0x3.2 and 7.0x5.0 packages programming sockets to program all 6-in and 4-pin field programmable devices

How to Select the Right Socket

Package Size (mm x mm)	2.0 x 1.6 (4-pin)	2.5 x 2.0 (4-pin)	2.7 x 2.4 (4-pin) (2.5x2.0 compatible)	3.2 x 2.5 (4-pin)	5.0 x 3.2 (4-pin & 6-pin)	7.0 x 5.0 (4-pin & 6-pin)
Socket to use	SiT6161DK	SiT6161DK	SiT6162DK	SiT6162DK	SiT6160DK	SiT6160DK
Supported Field Programmable Devices	SiT8008	SiT8008, SiT9001, SiT9003	SiT8208, SiT8209, SiT3807, SiT3808, SiT3809	SiT8008, SiT8208, SiT8209, SiT3807, SiT3808, SiT3809, SiT9001, SiT9003	SiT8008, SiT8208, SiT8209, SiT3807, SiT3808, SiT3809, SiT9120, SiT9121, SiT9122, SiT3821, SiT3822, SiT9001, SiT9003	SiT8008, SiT8208, SiT8209, SiT3807, SiT3808, SiT3809, SiT9120, SiT9121, SiT9122, SiT3821, SiT3822, SiT9001, SiT9003

Tape and Reel Options (Last Chracter of the Part Number)

Package Size (mm x mm)	2.0 x 1.6		2.0 x 1.6 2.5 x 2.0		3.2 x 2.5		5.0 x 3.2		7.0 x 5.0	
Tape size	8 1	nm	8 mm		8 mm		12 mm		16 mm	
Parts per Reel	250 pcs	1000 pcs	250 pcs	1000 pcs	250 pcs	1000 pcs	250 pcs	1000 pcs	250 pcs	1000 pcs
SiT8008FP	G	E	G	E	G	Е	Х	Y	Х	Υ

Package Size (mm x mm)	2.5 x 2.0		3.2 x 2.5		5.0 x 3.2		7.0 x 5.0	
Tape size	12 mm		12 mm		12 mm		16 mm	
Parts per Reel	250 pcs	1000 pcs						
SiT8208FP, SiT8209FP SiT3808FP, SiT3809FP SiT9001FP, SiT9003FP	х	Y	Х	Y	Х	Y	Х	Y
SiT9121FP, SiT9122FP SiT3821FP, SiT3822FP SiT9002FP	-	-	-	-	Х	Y	Х	Y

Exapmple: The SiT8008AI-71-XXX-000.FP000G ordering code indicates 250 pcs of SiT8008FP device in an 8 mm tape.

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