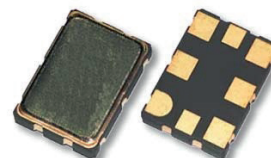


# SX5EUV LVPECL SURFACE MOUNT VOLTAGE CONTROLLED CRYSTAL CLOCK OSCILLATOR

## FEATURES

- Standard miniature package
- Ultra-low Jitter
- Up to 2100 MHz
- Short delivery

5.0 x 3.2 x 1.3 mm



Item	Specification					
Frequency Range	15.0 MHz ~ 2100 MHz					
Output Signal	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		+2.5V ±10%		+3.3V ±10%		
Control voltage center		+1.25 V		+1.65 V		
Control voltage range		0.25V to 2.25V		0.3V to 3.0V		
Supply Current Idd	100 mA typ. ; 120 mA max					
Output Voltage HIGH VOH	Vdd -1.165 V min. ; Vdd -0.8 V max					
Output Voltage LOW VOL	Vdd -2.0 V min. ; Vdd -1.55 V max					
Output Load	50 ohm to Vdd-2V					
Symmetry	45 / 55 %					
Rise / Fall time Fr/Ff	0.35 ns max.					
Tri-state function	pin #2 = high or open pin #2 = low		pin #4 - #5 ==> oscillation pin #4 - #5 ==> high impedance			
Start-up Time	3 ms typ. ; 10 ms max.					
RMS Phase Jitter (12 kHz to 20 MHz)	150 fs typ. , 300 fs max					
Phase Noise (typical)	<b>Offset</b>	<b>Frequency:</b>	<b>156.250 MHz</b>	<b>491.520 MHz</b>	<b>1500 MHz</b>	<b>2100 MHz</b>
	10 Hz		-39 dBc / Hz	- 20 dBc / Hz	- 15 dBc / Hz	- 18 dBc / Hz
	100 Hz		-75 dBc / Hz	- 50 dBc / Hz	- 55 dBc / Hz	- 50 dBc / Hz
	1 kHz		-99 dBc / Hz	- 83 dBc / Hz	- 80 dBc / Hz	- 80 dBc / Hz
	10 kHz		-123 dBc / Hz	- 112 dBc / Hz	- 105 dBc / Hz	- 100 dBc / Hz
	100 kHz		-139 dBc / Hz	- 128 dBc / Hz	- 120 dBc / Hz	- 117 dBc / Hz
	1 MHz		-149 dBc / Hz	- 140 dBc / Hz	- 130 dBc / Hz	- 125 dBc / Hz
	10 MHz		-157 dBc / Hz	- 153 dBc / Hz	- 149 dBc / Hz	- 145 dBc / Hz
Frequency Pulling Range	±50 ppm min. ; ±250 ppm max. (see options)					
Linearity	1% typical ; 10% max.					
Slope Polarity	Positive (Increasing control voltage always increases output frequency)					
Modulation bandwidth	10 kHz typ. (-3 dB)					
Input impedance	5 MΩ min.					
Harmonics	-5.0 dBc max.					
Packing Unit	1000pcs / reel					
Soldering Condition	260 °C , 10 sec x2 max					
	<b>Customer specifications on request</b>					

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

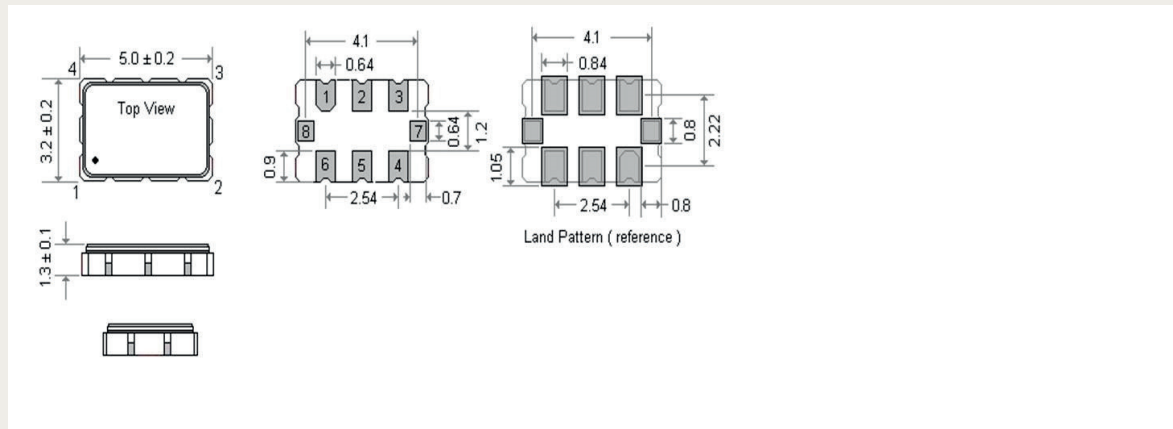
## OPTIONS & ORDERING INFORMATION

### SX5EUV

Supply Voltage *	Operating Temp. *	Overall Stability *	Tri-state Function	Pulling*	Frequency in MHz
<b>25</b> = +2.5V	<b>E</b> = 0°/+70°C	<b>20</b> = ±20 ppm	<b>E</b> = Tri-state	<b>50</b> = ±50 ppm min.	Please specify the frequency in MHz
<b>33</b> = +3.3V	<b>F</b> = -20°/+70°C	<b>25</b> = ±25 ppm		<b>100</b> = ±100 ppm min.	
	<b>K</b> = -40°/+85°C	<b>30</b> = ±30 ppm		<b>150</b> = ±150 ppm min.	
		<b>50</b> = ±50 ppm		<b>200</b> = ±200 ppm min.	
		<b>100</b> = ±100 ppm		<b>250</b> = ±250 ppm min.	

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

## OUTLINE DIMENSIONS (mm)



Pin Connections	#1 : Control Voltage	#2 : E/D	#3 : GND	#4 : Output
	#5 : Complementary output	#6 : Vdd	#7 : NC	#8 : NC