

# 3.3V HCSL Oscillator

**MODEL: F530SL Series** *RoHS Compliant / Pb Free / REACH Compliant* Rev 11/26/2013

## Preliminary Specifications



+

### FEATURES:

- HCSL Differential Output
- Low Phase Jitter (under 1pS RMS 12kHz~20MHz)

### PART NUMBER SELECTION

Part Number	Model Number	Frequency Stability <sup>1</sup>	Operating Temperature (T <sub>OPR</sub> ) (°C)	Frequency Range (MHz)
474C-Frequency-xxx	F530SL	±100 PPM	0 ~ +70	15.000 ~ 160.000
475C-Frequency-xxx	F530SLR	±100 PPM	-40 ~ +85	15.000 ~ 160.000
476C-Frequency-xxx	F535SL	±50 PPM	0 ~ +70	15.000 ~ 160.000
550C-Frequency-xxx	F535SLR	±50 PPM	-40 ~ +85	15.000 ~ 160.000
492C-Frequency-xxx	F536SL	±25 PPM	0 ~ +70	15.000 ~ 160.000
636C-Frequency-xxx	F536SLR	±25 PPM	-40 ~ +85	15.000 ~ 160.000

### SPECIFICATIONS

PARAMETERS	MAX (unless otherwise noted)
Storage Temperature Range (T <sub>STG</sub> )	-55 ~ +125°C
Supply Voltage (V <sub>DD</sub> )	3.3V±5%
Input Current (I <sub>DD</sub> )	40mA
Output Symmetry (Cross Point)	45% ~ 55%
Rise/Fall Time (0.175 ~ 0.525V)	
15.000 ~ 99.999999 MHz	1.0nS
100.000 ~ 160.000 MHz	0.7nS
Output Voltage (V <sub>OL</sub> )	-0.15 ~ 0.15V
(V <sub>OH</sub> )	0.66 ~ 0.85V
Output Swing (V <sub>OPP</sub> )	0.65V Min
Output Load	50 Ohms to GND
Standby Current	10uA
Start-up Time (T <sub>S</sub> )	10mS
Output Disable Time <sup>2</sup>	200nS
Output Enable Time <sup>2</sup>	10mS
Aging (per year @ 25C)	±3 PPM
Phase Jitter (12kHz~20MHz)	1pS RMS
Maximum Soldering Temp / Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au

<sup>1</sup> Inclusive of 25°C tolerance, and operating temperature range.

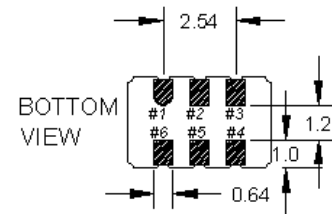
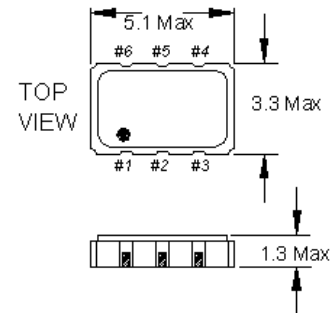
<sup>2</sup> An internal pull-up resistor from pin 1 to pin 6 allows active output if pin 1 is left open.

Notes:

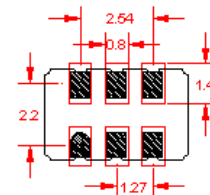
\*A 0.01µF capacitor should be placed between V<sub>DD</sub> (Pin 6) and GND (Pin3) to minimize power supply line noise.

\*Dimensional drawing is for reference to critical specifications defined by size measurements.

Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary



Recommended Solder Pad Layout



#### Pin Connections

- #1 E/D      #4 Output\_1
- #2 N.C.    #5 Output\_2
- #3 GND     #6 VDD

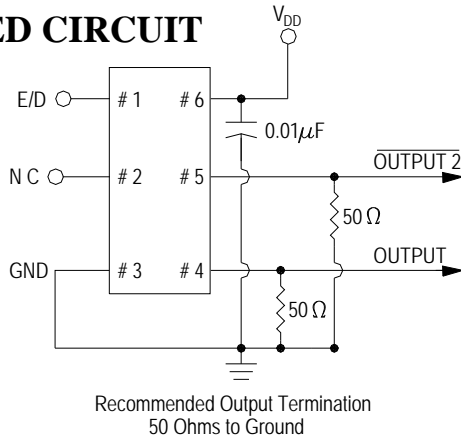
**All dimensions are in millimeters.**

ENABLE / DISABLE FUNCTION	
Pin1	Out 1 (pin 4), Out 2 (pin 5)
OPEN <sup>2</sup>	Active
'1' Level V <sub>IH</sub> ≥ 70%V <sub>DD</sub>	Active
'0' Level V <sub>IL</sub> ≤ 30%V <sub>DD</sub>	High Z

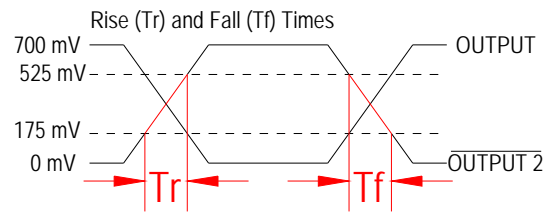
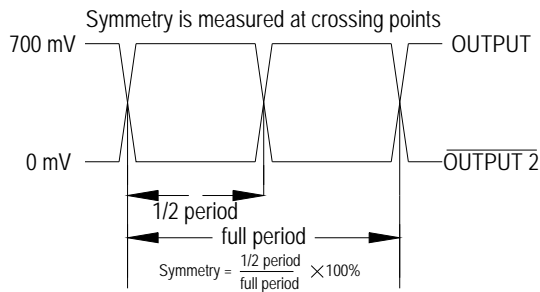
# 3.3V HCSL Oscillator

**MODEL: F530SL Series** *RoHS Compliant / Pb Free / REACH Compliant* Rev 11/26/2013

- RECOMMENDED CIRCUIT**



- WAVEFORM CHARACTERISTICS**



# 3.3V HCSL Oscillator

**MODEL: F530SL Series** *RoHS Compliant / Pb Free / REACH Compliant* Rev 11/26/2013

## • TAPE AND REEL SPECIFICATIONS

Tape Specifications (millimeters)							Reel Specifications (millimeters)						
A	B	C	D	E	F	Std Reel Qty	G	H	I	J	K	L	M
Φ1.55	4.0	8.0	5.5	12.0	1.5	1,000	2.0	Φ13	Φ 21	Φ 62	Φ 180	13.5	2.0

