

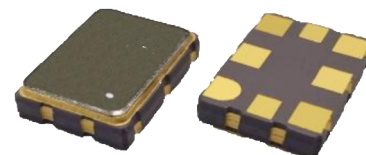
FV7050UH

VCXO HCSL SMD CRYSTAL OSCILLATOR ULTRA-LOW JITTER

Features

- High Frequency Range : 15 ~ 700MHz
- Ultra-low RMS Jitter : 150 fsec (typ.) @ 3.3V , 156.250 MHz

7.0 x 5.0 x 1.7 mm



General specifications , at Ta=+25°C

Parameter	Specification			
Frequency range	15 ~ 700MHz			
Output logic	HCSL Output load : 50 Ω to GNDd OUTN			
Overall frequency stability	±25ppm to ±100ppm (see options)			
Operating temperature range	-20°C to +70°C - Commercial application (see options) -40°C to +85°C - Industrial application (see options)			
Supply voltage (Vdd)	+1.8V ±5%	+2.5V ±10%	+3.3V ±10%	
Output Logic " High " , " 1 "	VDD : 0.66 V (min.) : VDD : 1.15 V (max.)			
Output Logic " Low " , " 0 "	VDD : - 0.15 V (min.) : VDD : 0.15 V (max.)			
Output Voltage Swing	450 mV (min.) : 700 mV (typ.)			
Current Consumption (Vdd=+3.3V)	80 mA (typ.) , 100 mA (max.)			
Current with Output Disabled	79 mA (typ.)			
Rise Time (Tr) / Fall Time (Tf)	0.4 nsec (max.) Measured between 20% ←→ 80% of wave form			
RMS Jitter (12KHz to 20MHz)	156.250 MHz : 159 fsec (typ.) ; 491.520 MHz : 155 fsec (typ.) ; 644.530 MHz : 151 fsec (typ.)			
Duty Cycle	50 % ± 5%			
Start-up Time	5 msec. (typ.) ; 10 msec. (max.)			
Aging at Ta = +25°C	± 3 ppm (max.) for first year ; ± 2 ppm (max.) per year thereafter			
Storage Temperature	-55°C to +150°C			
Control Voltage Function on Pad 1 Vcontrol Center Vcontrol Range Frequency Pulling Range	Vdd +1.8V + 0.9 V + 0.0 V ~ + 1.8V ± 100 ppm (min.) ± 200 ppm (available)	Vdd +2.5V + 1.25 V + 0.25V~+2.25V ± 100 ppm (min.) ± 200 ppm (available)	Vdd +3.3V + 1.65 V + 0.3 V ~ + 3.0 V ± 100 ppm (min.) ± 200 ppm (available)	
Linearity	1% (typ.) ; 10% (max.)			
Transfer Function	Positive Transfer			
Input Impedance	5MΩ			
Bandwidth	10 KHz (typ.) Measured at -3 dB			
Output Enable Function on Pad 2				
Output Enable / Disable Function	Enable: When 80% (min.) of VDD to Enable Output. ; Enable time : 2.5 msec (max.) Disable: When 20% (max.) of VDD to Disable Output. ; Disable time : 10 μsec (max.)			

Options & Ordering information

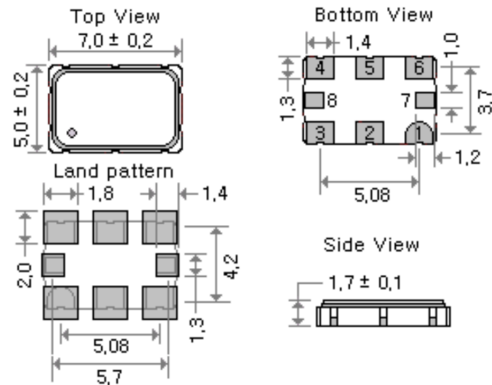
Supply Voltage	Operating Temp.	Overall Stability	Output En./Disable	Frequency	
18 = +1.8V	F= -20° ~ +70°C	25 = ±25ppm	E = Tri-State	Frequency in MHz	
25 = +2.5V	K= -40° ~ +85°C	50 = ±50ppm			
33 = +3.3V		100 = ±100ppm			

Part number sample: FV7050UH-25F50E-48.000MHz

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Outline Dimensions (unit : mm), Suggested pad Layout



Pad Connections:

Pad 1 : Control Voltage

Pad 2 : Output Enable

Pad 3 : Ground

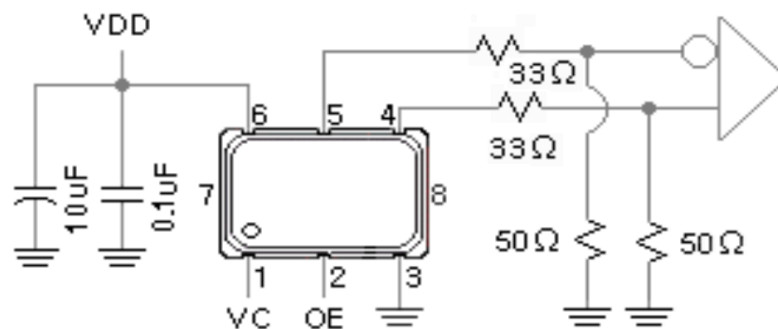
Pad 4 : Output

Pad 5 : Complementary Output

Pad 6 : Supply Voltage

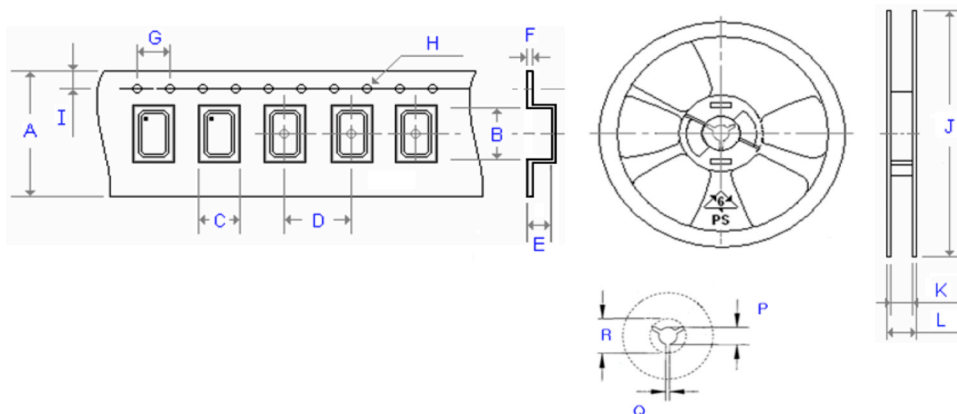
Pad 7, 8 : Do Not Connect

HCSL Test Circuit



Emboss Taping and Reel Specifications

Pieces per reel : 1000



Carrier Type Dimensions (unit : mm) ±0.3mm

A	B	C	D	E	F	G	H	I
16.00	7.30	5.30	8.00	1.90	0.30	4.00	Ø 1.50	1.75

Reel Dimensions (unit : mm) +2.0 / -0.0mm

J	K	L	P	Q	R
180.00	17.20	19.30	13.30	2.20	22.00