

Crystal Oscillators

Surface Mount Type

NDOLP32 [3.2×2.5×1.00 mm]	NDOLP53 [5.0×3.2×1.25 mm]	NDOLP57 [7.0×5.0×1.45 mm]
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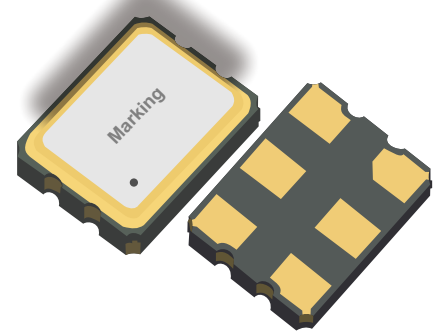
Output
LV-PECL

Supply Voltage
2.5V / 3.3V

Frequency Range
10 MHz~1500 MHz

Features

- Surface mount package size 3.2×2.5 (3225), 5.0×3.2 (5032), 7.0×5.0 (7050), mm×mm
- Differential output Simple Package Crystal Oscillator (SPXO)
- LV-PECL output, frequency range from 10 MHz to 1500 MHz
- 2.5V / 3.3V operating voltage
- RoHS Compliant
- Very low phase jitter: <1 pS (0.6 pS, Typ.) RMS
- Tri-state available
- Applications: Fiber channel, Storage area network, SONET, Server, Smart grid, Gigabit ethernet, and more



Standard Specifications

Item / Type	NDOLP32 (SMD 3225 LVPECL)	NDOLP53 (SMD 5032 LVPECL)	NDOLP57 (SMD 7050 LVPECL)
Dimensions	3.2×2.5×1.00 mm	5.0×3.2×1.20 mm	7.0×5.0×1.40 mm
Output	LV-PECL		
Output load	50Ω (Terminated to Vcc-2.0V)		
Output frequency range	10 MHz~250 MHz	10 MHz~1500 MHz	10 MHz~1500 MHz
Supply voltage	2.5 V / 3.3 V		
Frequency tolerance (All condition)	±25 ppm, ±50 ppm, ±100 ppm		
Operating temperature	-20~+70°C, -40~+85°C		
Current consumption	100mA max.		
Disable current	35mA max.		
Symmetry	45 % to 55 %		
Output voltage Voh (min.)	Vcc-1.1 V min.		
Output voltage Vol (max.)	Vcc-1.5 V max.		
Input voltage Vih (min.)	70% Vcc min.		
Input voltage Vil (max.)	30% Vcc max.		
Rise time / Fall time	1 ns max.		
Start-up time	10ms max.		
Storage temperature	-55~+125°C		
Phase jitter (12 KHz~20 MHz)	1 pSec Max.		

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NDOLP32 NDOLV32 NDOHC32 [3.2×2.5×1.00 mm]	NDOLP53 NDOLV53 NDOHC53 [5.0×3.2×1.25 mm]	NDOLP57 NDOLV57 NDOHC57 [7.0×5.0×1.45 mm]
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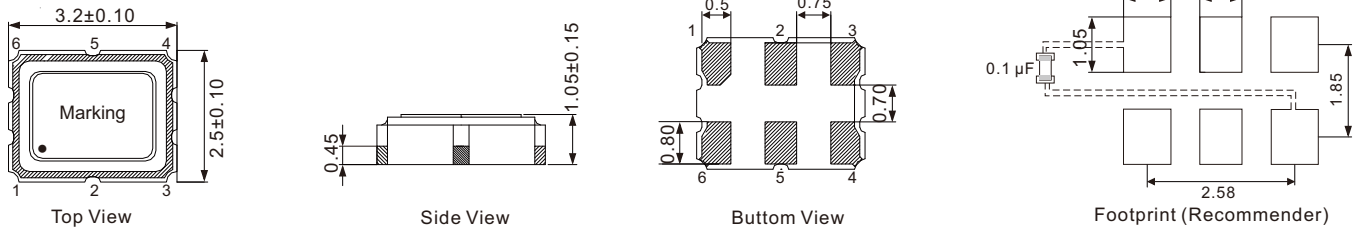
Output LVPECL, LVDS, HCSL

Supply Voltage 2.5V / 3.3V

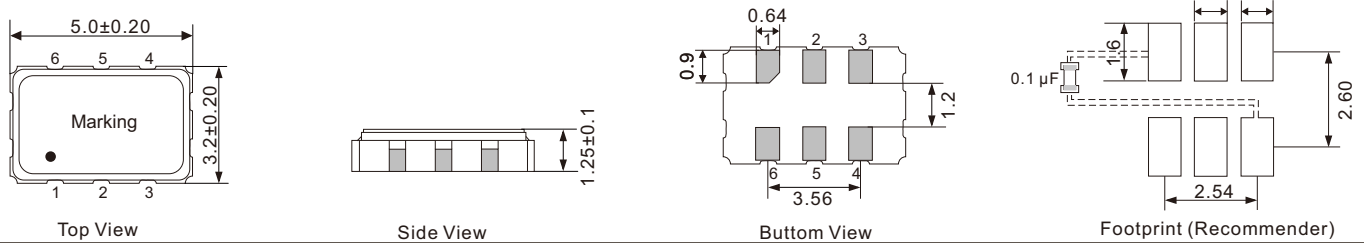
Frequency Range 13.5 kHz~220 MHz
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Outline Dimensions (Unit: mm)

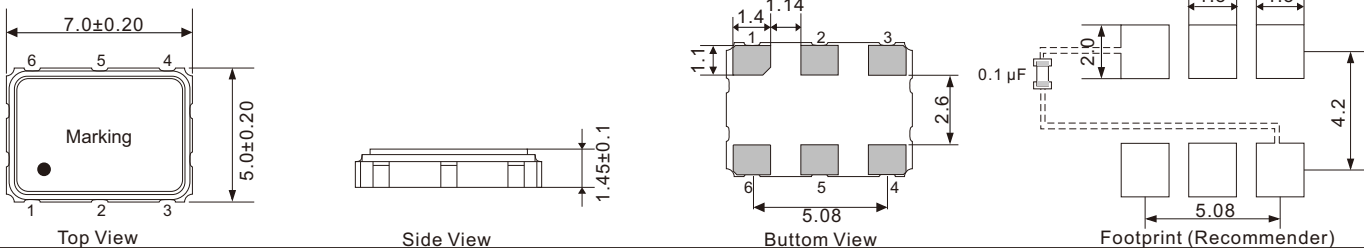
NDOLP32,NDOLV32,NDOHC32 (3.2×2.5×1.00 mm)



NDOLP53,NDOLV53,NDOHC53 (5.0×3.2×1.25 mm)

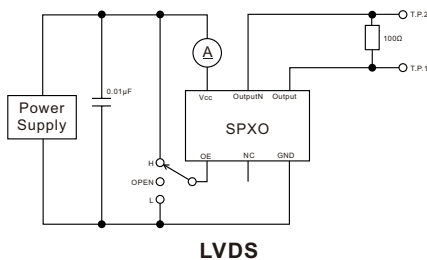


NDOLP57,NDOLV57,NDOHC57 (7.0×5.0×1.45 mm)

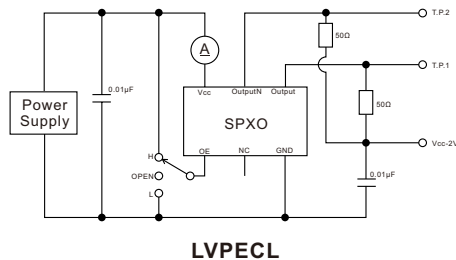


Measurement Circuit

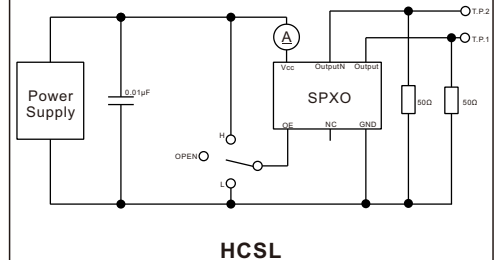
NDOLV32,NDOLV53,NDOLV57



NDOLP32,NDOLP53,NDOLP57



NDOHC32,NDOHC53,NDOHC57



Pin Map

Pin	Connection	Function
1	OE / Tri-State	“H” or “OPEN”: specified frequency output; “L”: output is high impedance
2	N.C.	No connect (Open or Vcc)
3	GND	Vcc power supply ground
4	OUT	Oscillator output
5	OutputN	Complementary oscillator output
6	Vcc	Power supply voltage