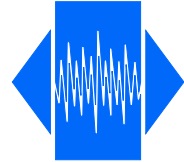


XO20P

Miniature size, high reliable, low jitter
CMOS Crystal Oscillator

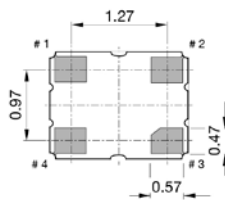
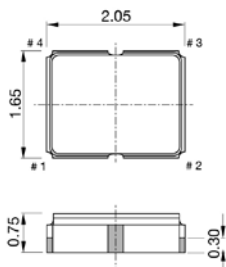
QuartzCom
the communications company



Frequency range	1 to 200 MHz for 2.5 V and 3.3 V 1 to 125 MHz for 1.8 V		
Frequency stability:	$\leq \pm 50$ ppm	All inclusive	(*)
All inclusive frequency stability vs. temperature, tolerance, aging 1 st year, supply & load variation vs. aging @ +25 °C	$\leq \pm 3$ ppm	1 st year	
Frequency tolerance ex. Factory	$\leq \pm 1.0$ ppm	@ +25 °C	
Supply voltage (nominal value ± 5 %)	+1.8 V, +2.5V to +3.3 V		(*)
Supply current (@ 15 pF load capacitance)	< 30 mA		
Output signal	CMOS	$V_{OH} > 0.9 \cdot V_{CC} / V_{OL} < 0.1 \cdot V_{CC}$	
Duty cycle	45 ~ 55 %		
Output load	15 pF		
Rise / Fall time	< 3 ns		
Start up time	< 8 ms		
Tri-state function	pin #1 → high or open pin #1 → low or GND	pin #3 → oscillation pin #3 → high impedance	
RMS phase jitter	2.5 V and 3.3 V 1.8 V	< 1.0 ps < 1.5 ps	
Operating temperature range	-40 ~ +85 °C		(*)
Storage temperature range	-55 ~ +125 °C		
Reflow Profiles as per IPC/JEDEC J-STD-020C	≤ 260 °C over 10 sec. Max.		
Moisture sensitivity	Level 1 (unlimited)		

(*) See available options on page #2

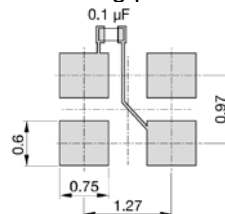
Note: Unless otherwise specified conditions are @+25 °C



Pin function

- # 1 Tri-state
- # 2 GND
- # 3 Output
- # 4 Vcc

Soldering pattern



Ordering code: XO20P-H(2)-(3)(4)-100.000MHz *Example: XO20P-H33-NN1u25-100.000MHz*

Package type	(2) Supply voltage	(3) Operating temperature	4) Frequency stability
20P = 2.0 x 1.65 mm	18 = 1.8 V 25 = 2.5 V 33 = 3.3 V	JK = -20 to +70 °C NN = -40 to +85 °C NR = -40 to +105 °C NV = -40 to +125 °C	50u = ± 50 ppm 25u = ± 25 ppm 20u = ± 20 ppm 15u = ± 15 ppm

Frequency stability over all

ppm	$\leq \pm 15$	$\leq \pm 20$	$\leq \pm 25$	$\leq \pm 50$
-20 to +70 °C	Δ	O	O	O
-40 to +85 °C	X	Δ	O	O
-40 to +105 °C	X	X	Δ	O
-40 to +125 °C	X	X	Δ	O

Δ Ask factory
O Available
X Not available

