

CRYSTAL OSCILLATOR (SPXO)
OUTPUT : HCSL



Product Number
X1G005141xxxx00

SG3225HBN

- Frequency range : 100 MHz to 325 MHz
- Supply voltage : 2.5V, 3.3 V
- Output : HCSL
- Function : Output enable (OE)
- External dimensions : 3.2 × 2.5 × 1.05 mm
- Phase jitter : 85 fs Typ (fo = 156.25MHz)



Specifications (characteristics)

Item	Symbol	Specifications	Conditions / Remarks
Output frequency range	fo	100 MHz to 325 MHz	Please contact us for inquiries regarding available frequencies.
Supply voltage	V _{CC}	D : 2.5 V ± 0.125 V , C : 3.3 V ± 0.165 V	
Storage temperature	T _{stg}	-55 °C to +125 °C	Store as bare product.
Operating temperature	T _{use}	G: -40 °C to +85 °C, H: -40 °C to +105 °C	
Frequency tolerance	f _{tol}	J: ± 50 × 10 ⁻⁶ (Not available H : -40 °C to +105 °C) L: ± 100 × 10 ⁻⁶	Includes initial frequency tolerance, temperature variation, supply voltage change and 10 years aging(+25 °C)
Current consumption	I _{CC}	25 mA Typ. 35 mA Max.	OE= V _{CC} , with output load
Disable current	I _{dis}	15 mA Max.	OE=GND
Symmetry	SYM	45 % to 55 %	At outputs crossing point
Output voltage	V _{OH} V _{OL}	0.75 V Typ., 0.66 V to 0.85 V 0 V Typ., -0.15 V to 0.15 V	DC characteristics, single output
Crossing voltage	V _{CR}	0.25 V to 0.55 V	
Output load condition	L HCSL R _s	50 Ω 33 Ω	
Input voltage	V _{IH} V _{IL}	70 % V _{CC} Min. 30 % V _{CC} Max.	OE terminal
differential output rise slew rate/ fall slew rate	R _r / R _f	1 V/ns to 4 V/ns	Between -0.15 V and 0.15 V of differential output
Start-up time	t _{str}	10 ms Max.	Time at minimum supply voltage to be 0 s

Phase Jitter

Phase Jitter [fs] (Offset Frequency 12k to 20MHz)	Output frequency	100 MHz	125 MHz	156.25 MHz	200 MHz	322.265625 MHz	Supply voltage V _{CC} =3.3V±0.165V
	Typ.	110	95	85	75	65	
Max.	180	160	140	125	110		

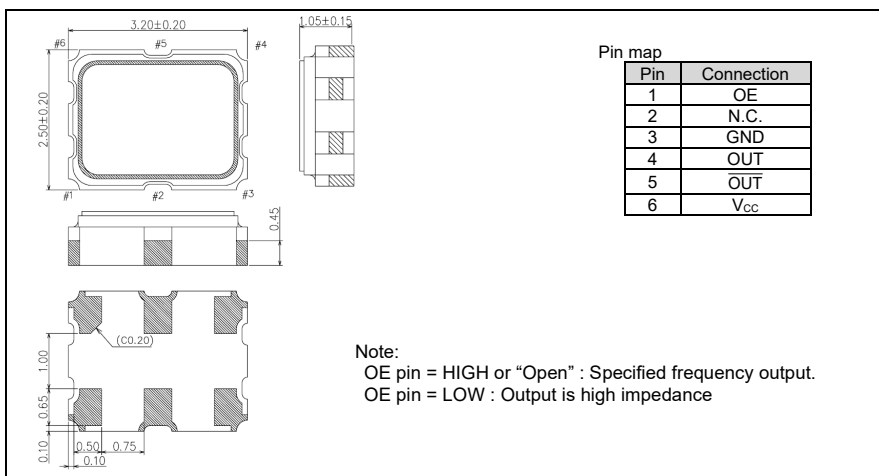
Product Name **SG3225 HBN 156.250000MHz C J G A** (⑤⑥: Not Available code JH)

(Standard form)

- ① Model ② Output (H: HCSL) ③ Frequency ④ Supply voltage (D: 2.5 V Typ. , C: 3.3 V Typ.)
 ⑤ Frequency tolerance (J: ±50 × 10⁻⁶ L: ±100 × 10⁻⁶)
 ⑥ Operating temperature (G:-40 to +85°C, H:-40 to +105°C) ⑦ Internal identification code("A" is default)

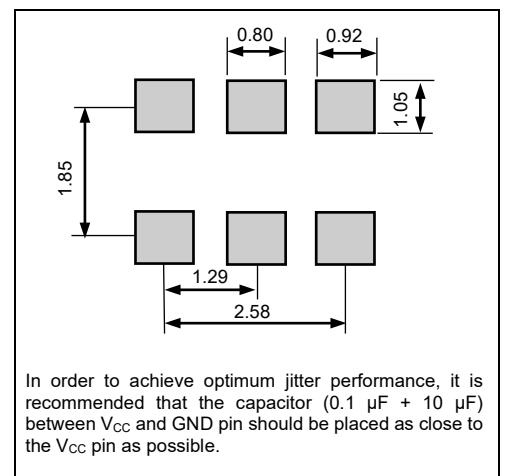
External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)



► Explanation of the mark that are using it for the catalog

	<p>► Pb free.</p>
	<p>► Complies with EU RoHS directive. *About the products without the Pb-free mark. Contains Pb in products exempted by EU RoHS directive. (Contains Pb in sealing glass, high melting temperature type solder or other.)</p>
	<p>► Designed for automotive general equipment.</p>
	<p>► Designed for automotive applications related to driving and safety.</p>

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