

# Crystal Oscillator

## NV3225SA

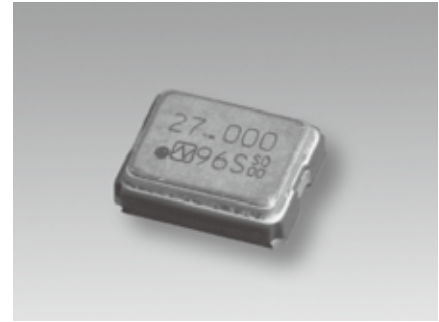
Voltage Controlled Crystal Oscillator (VCXO)

### Main Application

For Mobile TV, DSC, Navigation Device, DVD, Blu-ray, etc

### Features

- A compact and thin : 3.2 × 2.5 × H 0.9 mm
- Frequency control range : Min.  $\pm 100 \times 10^{-6}$
- Operating temperature range : -40 to +85°C
- Output Specification : CMOS
- Supports low current consumption.



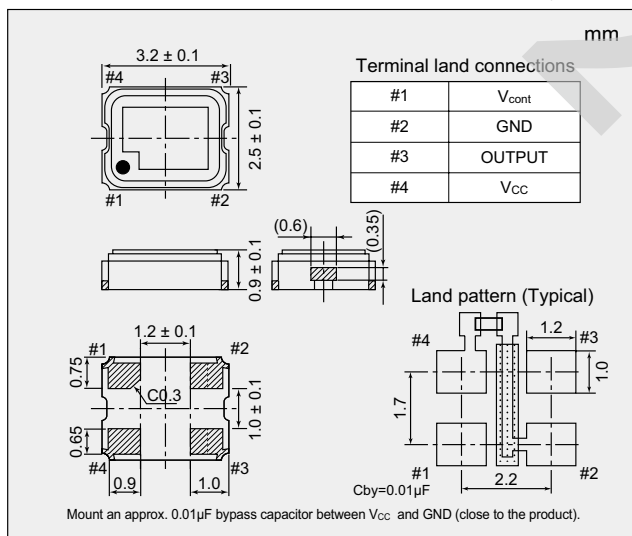
Pb Free

RoHS Compliant  
Directive 2011/65/EU  
Directive (EU) 2015/863

### Specifications

Item	Model	NV3225SA							
		1.25 ≤ F < 10	10 ≤ F < 20	20 ≤ F < 30	30 ≤ F ≤ 40	40 < F < 50	50 ≤ F ≤ 65	65 < F ≤ 80	
Nominal Frequency (MHz)									12.288
Supply Voltage [V <sub>cc</sub> ] (V)		+3.3 ± 10 %							+1.8 ± 10 %
Current Consumption (mA)		Max. 3	Max. 4.5	Max. 5	Max. 6	Max. 9	Max. 10	Max. 11	Max. 2
Output Specification		CMOS							CMOS
Tr Max. / Tf Max. (ns)		10 / 10 (at 0.1V <sub>cc</sub> to 0.9V <sub>cc</sub> )							10 / 10 (at 0.2V <sub>cc</sub> to 0.8V <sub>cc</sub> )
Symmetry (%)		45 to 55							45 to 55
Output Load Condition (pF)		15							15
Operating Temperature Range (°C)		-40 to +85							0 to +85
Storage Temperature Range (°C)		-55 to +125							-55 to +125
Overall Frequency Tolerance		Max. $\pm 50 \times 10^{-6}$							Max. $\pm 30 \times 10^{-6}$
Frequency Control Range / Control Voltage [V <sub>cont</sub> ]		Min. $\pm 100 \times 10^{-6}$ / + 1.65 ± 1.65 V							Min. $\pm 80 \times 10^{-6}$ / + 0.9 ± 0.9 V
Frequency Change Polarity		Positive							Positive
Phase Noise (dBc / Hz)	Fout ±1kHz (typ.)	-145	-140	-135	-126	-119	-	-	
	Fout ±100kHz (typ.)	-160	-156	-154	-151	-146	-	-	
Start-up Time (ms)		5							10

### Dimensions



Please specify the model name, frequency, and specification number when you order products.  
For further questions regarding specifications, please feel free to contact us.