

## NH9070WB

High Precision Oscillator (Twin-DCXO)  
for Fixed Communication Equipment

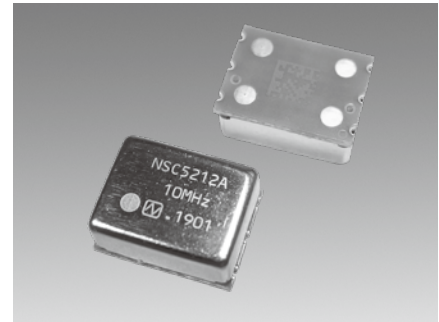
### Main Application

- 5G DU (Distributed Unit) • 5G MMU (Massive MIMO Unit) • Base station equipment
- Backbone system network equipment • Relay network equipment

### Features

- Compact.
- Excellent temperature characteristics.
- Excellent Long-term frequency stability.
- Excellent phase noise characteristics.
- Supports wide temperature range.
- Also, 14×9 mm OCXO compatible foot pattern is available by NH9070WA.

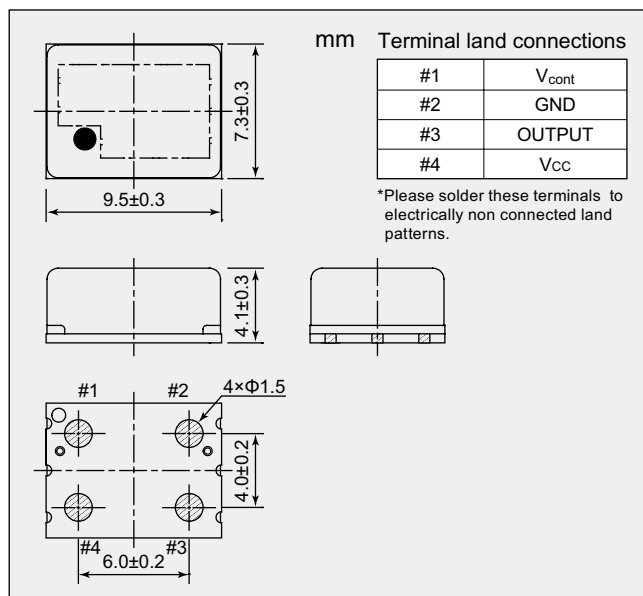
RoHS Compliant  
Directive 2011/65/EU  
Directive (EU) 2015/863



### Specifications

Item	Model	NH9070WB
Nominal Frequency Range (MHz)		5 to 40
Nominal Frequency $f_{nom}$ (MHz)		10, 12.8, 13, 19.2, 20, 25, 25.6, 30.72, 38.88
Supply Voltage $V_{CC}$ (V)		+3.3
Load Impedance $C_L$ (pF)		15
Operating Temperature Range $T_{opr}$ (°C)		-40 to +85
Storage Temperature Range $T_{str}$ (°C)		-40 to +85
Power Consumption $P_{CC}$ (W)	at start	Max. 0.9 (Typ. 0.8)
	when stable, at +25 °C	Max. 0.5 (Typ. 0.35)
Frequency Tolerance $\Delta f/f_{nom}$	at +25°C, $V_{cont}$ = Center, before shipment	Max. $\pm 500 \times 10^{-9}$
Frequency/Temperature Characteristics $\Delta f/f$	at Operating Temperature Range	Max. $\pm 10 \times 10^{-9}$   Max. $\pm 30 \times 10^{-9}$
Frequency/Voltage Coefficient $\Delta f/f$	$V_{CC} \pm 5\%$	Max. $\pm 10 \times 10^{-9}$ (Typ. $\pm 5 \times 10^{-9}$ )
Long-term Frequency Stability $\Delta f/f$	Based on frequency after 30 days operation	Max. $\pm 5 \times 10^{-9}$ / day
		Max. $\pm 300 \times 10^{-9}$ / year
Stabilization Time (min.)	Time within specified frequency tolerance after power on at +25°C, based on frequency after 60 minutes operation.	Max. 3 / within $\pm 100 \times 10^{-9}$
Frequency Control Range $\Delta f/f$		$V_{cont} = +1.5V \pm 1.3V$
		Min. $\pm 5 \times 10^{-6}$
Frequency Change Polarity		Positive
Linearity (%)		Typ. $\pm 1$
Output Voltage		LVC MOS $V_{OL}$ : Max. +0.3 V $V_{OH}$ : Min. +3.0 V
Symmetry (%)	at $(V_{OH} + V_{OL}) / 2$	45 to 55
Specification Number		NSC5212A   NSC5212B

### Dimensions



### Reference Value

Phase Noise (at 20 MHz)	Offset Frequency	dBc/Hz (typ.)
	1 Hz	-70
	10 Hz	-100
	100 Hz	-130
	1 kHz	-148
	10 kHz	-158
	100 kHz	-160
1 MHz	-163	

We offer dedicated tool (charge) for evaluation of this product

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