

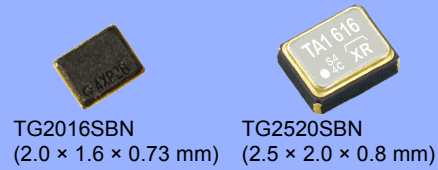
**VC-TCXO/TCXO
HIGH STABILITY**



Product Number (Please contact us)
TG2016SBN : X1G004691xxxxxx
TG2520SBN : X1G005151xxxxxx

TG2016SBN / TG2520SBN

- Output frequency : 13 MHz to 55MHz
- Supply voltage : 1.8 V Typ./ 2.8 V Typ./ 3.0 V Typ./ 3.3 V Typ.
- Frequency / temperature characteristics : $\pm 0.5 \times 10^{-6}$ Max. (-40 °C to +85 °C)
 $\pm 2.0 \times 10^{-6}$ Max. (-40 °C to +85 °C)
- External dimensions: 2.0 × 1.6 × 0.73 mm / 2.5 × 2.0 × 0.8 mm
- Applications : GPS, RF
 Wireless communication devices
 (CDMA, WCDMA, LTE, WiMAX, other)
- Features : High stability, Low noise



Actual size

TG2016SBN	TG2520SBN
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Specifications (characteristics)

Item	Symbol	VC-TCXO	TCXO	Conditions / Remarks
Output frequency range	f_0	13 MHz to 55MHz 16 MHz, 16.368 MHz, 16.369 MHz, 16.384 MHz, 16.8 MHz, 19.2 MHz, 20 MHz, 26 MHz, 27MHz, 28.974 MHz, 30 MHz, 32 MHz, 37.4 MHz, 38.4 MHz, 39 MHz and 40 MHz		Standard frequency
Supply voltage	V _{cc}	1.8 V ± 0.1 V / 2.8 V ± 5 % / 3.0 V ± 5 % / 3.3 V ± 5 %		Supply voltage range :1.7 V to 3.63 V
Storage temperature	T _{stg}	-40 °C to +90 °C		Storage as single product.
Operating temperature	T _{use}	G: -40 °C to +85 °C		
Frequency tolerance	f _{tol}	$\pm 1.5 \times 10^{-6}$ Max.		After reflow, +25 °C
Frequency/temperature characteristics	f_0 -T _c	C: $\pm 0.5 \times 10^{-6}$ Max. / G: -40 °C to +85 °C F: $\pm 2.0 \times 10^{-6}$ Max. / G: -40 °C to +85 °C		Standard stability version
Frequency/load coefficient	f_0 -Load	$\pm 0.1 \times 10^{-6}$ Max.		10 k Ω // 10 pF ± 10 %
Frequency/voltage coefficient	f_0 -V _{cc}	$\pm 0.1 \times 10^{-6}$ Max.		V _{cc} ± 5 %
Frequency aging	f _{age}	$\pm 0.5 \times 10^{-6}$ Max.		+25 °C, First year, 13 MHz $\leq f_0 \leq 20$ MHz, 26 MHz $\leq f_0 \leq 40$ MHz
		$\pm 1.5 \times 10^{-6}$ Max.		+25 °C, First year, 20 MHz $< f_0 < 26$ MHz 40 MHz $< f_0 \leq 55$ MHz
Current consumption	I _{cc}	1.2 mA Max.		13 MHz $\leq f_0 < 16$ MHz
		1.4 mA Max.		16 MHz $\leq f_0 \leq 27$ MHz
		1.5 mA Max.		27 MHz $< f_0 \leq 36$ MHz
		1.8 mA Max.		36 MHz $< f_0 \leq 40$ MHz
		2.0 mA Max.		40 MHz $< f_0 \leq 52$ MHz
Input resistance	R _{in}	500 k Ω Min.		V _c - GND (DC)
				B: V _c = 0.9 V ± 0.6 V (V _{cc} = 1.8 V) or C: V _c = 1.4 V ± 1.0 V (V _{cc} = 2.8 V) or D: V _c = 1.5 V ± 1.0 V (V _{cc} = 3.0 V) or E: V _c = 1.65 V ± 1.0 V (V _{cc} = 3.3 V)
Frequency control range	f _{cont}	$\pm 8.0 \times 10^{-6}$ to $\pm 12.0 \times 10^{-6}$		
Frequency change polarity	-	Positive polarity		
Symmetry	SYM	45 % to 55 %		GND level (DC cut)
Output voltage	V _{pp}	0.8 V Min.		Peak to Peak
Start-up time	t _{str}	1.0 ms Max.		T=0 at 90% V _{cc}
Output load condition	Load _R	10 k Ω		DC cut capacitor = 0.01 μ F
	Load _C	10 pF		

* Note : Please contact us for requirements not listed in this specification.

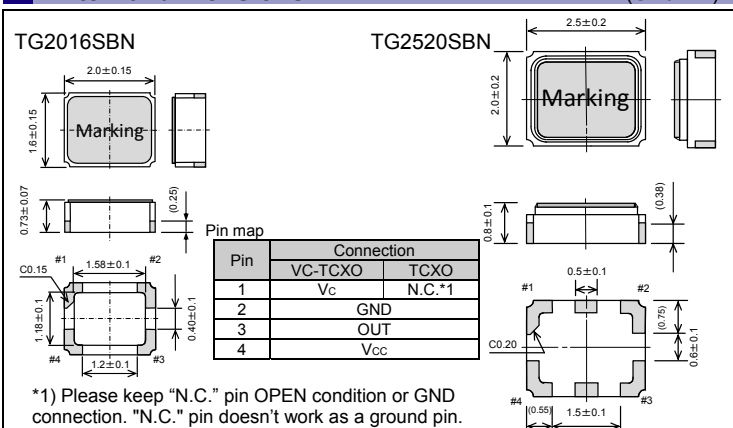
Product Name **TG2016 SBN 26.000000MHz** I C G N N M
 (Standard form) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

- ① Model(TG2016, TG2520)
- ② Output (S: Clipped sine wave) ③ Frequency
- ④ Supply voltage (Refer to symbol table) ⑤ Frequency / temperature characteristics (C: $\pm 0.5 \times 10^{-6}$ Max., F: $\pm 2.0 \times 10^{-6}$ Max.)
- ⑥ Operating temperature (G: -40 °C to +85 °C) ⑦ OE function (N: Non) ⑧ Vc function(Refer to symbol table , A: Vc =any)
- ⑨ Internal identification code ("L", "M", "H" is default)

④ Supply voltage[V _{cc}], ⑧ Vc function[V _c] (Symbol table)		VC-TCXO				
Voltage [V]	TCXO	T: 1.8	K: 2.5	P: 2.6	M: 2.8	
⑤ V _{cc} (Typ.)	T: 1.8 to 3.3	T: 1.8 to 3.3	K: 2.5 to 3.3	P: 2.6 to 3.3	M: 2.8 to 3.3	
⑧ V _c (Typ.)	N: Non	B: 0.9	C: 1.4	D: 1.5	E: 1.65	

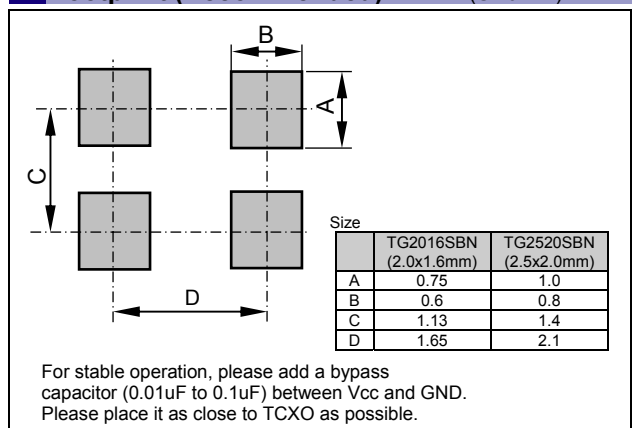
External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)



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	► Designed for automotive applications related to driving safety (Engine Control Unit, Air Bag, ESC etc).

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