

TCXO HIGH STABILITY
105 °C HIGH TEMPERATURE



Product Number
TG7050CKN: X1G005661xxx99
TG7050SKN: X1G005671xxx99
TG7050CMN: X1G005681xxx99
TG7050SMN: X1G005691xxx99

TG7050CKN / TG7050SKN TG7050CMN / TG7050SMN

- Frequency range : 10 MHz to 54 MHz
- Supply voltage : 3.3 V Typ.
- Frequency / temperature characteristics : $\pm 0.1 \times 10^{-6}$ Max. (-40 °C to +105 °C)
- Free-run accuracy : $\pm 4.6 \times 10^{-6}$ Max. / 20years (for Stratum3)
- External dimensions : 7.0 × 5.0 × 1.5 mm (10 pins or 4 pins)
- Applications : Network synchronization, Stratum3, BTS, SyncE, IEEE1588, Microwave, BTS
- Features : 105 °C High temp, High stability



TG7050CKN
TG7050SKN
(10 pins)



TG7050CMN
TG7050SMN
(4 pins)

Specifications (characteristics)

Item	Symbol	CMOS	Clipped sine wave	Condition
Output frequency range	f_o	10 MHz to 54 MHz		Please contact us about available frequencies.
Supply voltage	V_{CC}	3.3 V $\pm 5\%$		
Storage temperature	T_{stg}	-40 °C to +105 °C		Storage as single product.
Operating temperature	T_{use}	-40 °C to +105 °C		
a) Frequency tolerance	f_{tol}	$\pm 1.0 \times 10^{-6}$ Max.		After reflow, +25 °C
b) Frequency/temperature characteristics	f_o-T_c	$\pm 0.1 \times 10^{-6}$ Max.		-40 °C to +105 °C
c) Frequency/load coefficient	f_o-Load	$\pm 0.1 \times 10^{-6}$ Max.		Load $\pm 10\%$
d) Frequency/voltage coefficient	f_o-V_{CC}	$\pm 0.1 \times 10^{-6}$ Max.		$V_{CC} \pm 5\%$
e) Frequency aging	f_{age}	$\pm 0.5 \times 10^{-6}$ Max. $\pm 3.0 \times 10^{-6}$ Max.		+25 °C, First year +25 °C, 20 years
Holdover stability (Constant temperature)	-	$\pm 0.01 \times 10^{-6}$ Max. (+25 °C, 24 hours) $\pm 0.04 \times 10^{-6}$ Max. (+25 °C, 24 hours)		After 10 days of continuous operation After 48 hours of continuous operation
Wander generation (MTIE, TDEV)		Compliant with GR-1244CORE, ITU-T G.8262		
Free-run accuracy	-	$\pm 4.6 \times 10^{-6}$ Max. / 20 years		This includes Item a), b), c), d) and e)
Current consumption	I_{CC}	7.0 mA Max.	6.0 mA Max.	10 MHz $\leq f_o \leq 26$ MHz
		9.0 mA Max.		26 MHz $< f_o \leq 40$ MHz
		10.0 mA Max.		40 MHz $< f_o \leq 54$ MHz
Symmetry	SYM	45 % to 55 %	-	GND level (DC cut)
Output voltage	V_{OH}	90 % V_{CC} Min.	-	
	V_{OL}	10 % V_{CC} Max.	-	
Rise time / Fall time	tr/tf	8.0 ns Max.	-	10 % V_{CC} to 90 % V_{CC} level, Load:15 pF
Start-up time	t_{str}		5 ms. Max.	$t=0$ at 90 % V_{CC}
Output level	V_{PP}	-	0.8 V Min.	Peak to Peak
Output load condition	Load	15 pF	10 k Ω /10 pF	
Input voltage	V_{IH}		70% V_{CC} Min.	OE terminal (Enable voltage)
	V_{IL}		30% V_{CC} Max.	OE terminal (Disable voltage)

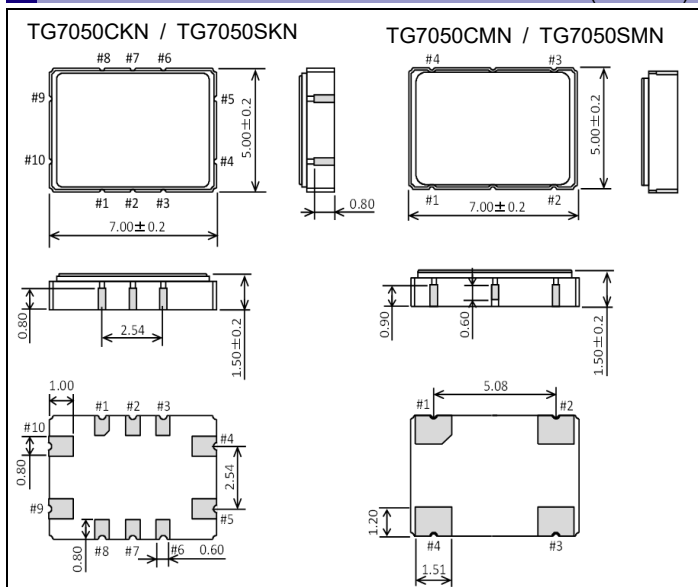
* Note : Please contact us for requirements not listed in this specification.

Product Name **TG7050CKN30.720000MHzCAHHGA**
 (Standard form) ① ②③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ①Model ②Output (C: CMOS, S: Clipped sine wave) ③Package type (K: 10 pins, M: 4 pins) ④Frequency ⑤Supply voltage (C: 3.3 V Typ.)
 ⑥Frequency/temperature characteristics (A: $\pm 0.1 \times 10^{-6}$ Max.) ⑦Operating temperature (H: -40 °C to +105 °C)
 ⑧OE function (H: Active High, N: Non) ⑨Vc function (G: Vc Non) ⑩Internal identification code ("A" is default)

External dimensions

(Unit :mm)



Footprint (Recommended) / Pin Map

(Unit :mm)

