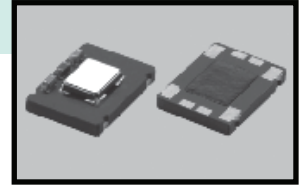


# VC/TCXO (Clipped Sinus, CMOS) STRATUM III

## TX7050-2



### General Description

Ceramic packaged VC/TCXO with good mechanical reliability

### Features

- Very tight stability :  $\pm 0.1$ ppm
- Very low aging :  $< \pm 4.6$ ppm overall in 20years
- Wide range of supply voltage
- Very low Phase noise and Jitter

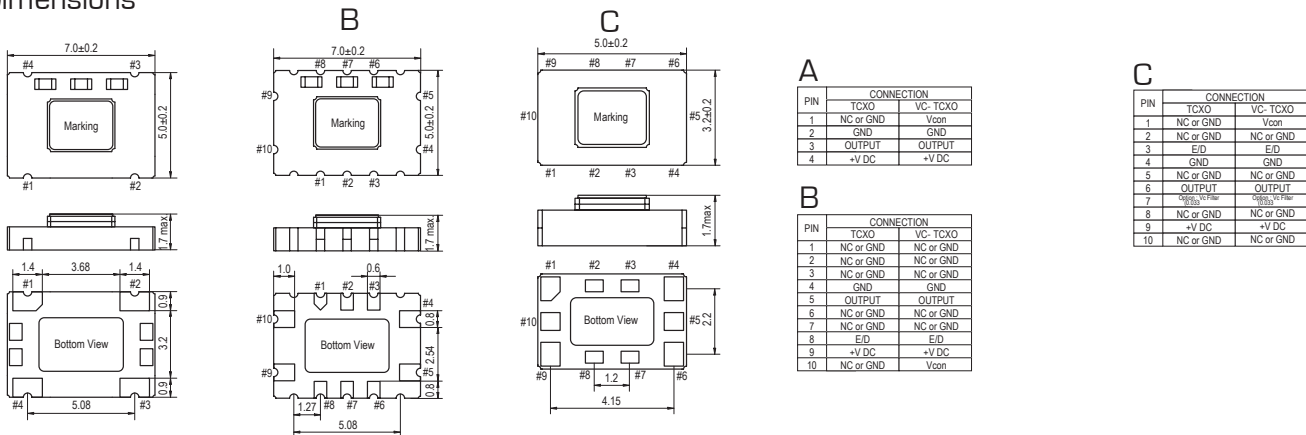
### Main applications

STRATUM III

### Electrical characteristics

Item	Values			
	TX7050-2S	TX7050-2SV	TX7050-2C	TX7050-2CV
Part number	TX7050-2S	TX7050-2SV	TX7050-2C	TX7050-2CV
Output Waveform	Clipped Sinus		CMOS	
Frequency range	10 - 40 MHz			
Supply voltage	+2.7V to +5.5V			
Type	TCXO	VCTCXO	TCXO	VCTCXO
Control Voltage (only for VCTCXO)	$1/2V_{dd} \pm 1/2V_{dd}$			
Initial frequency tolerance @ +25°C	$< \pm 1.5$ ppm ( $V_{control} = +1.5V$ and after 2 times reflow soldering)			
Frequency stability	vs temp. vs Vdd vs Load	$< \pm 0.1$ ppm max over $-10/+70^\circ C$ , $< \pm 0.28$ ppm max over $-40/+85^\circ C$ $< \pm 0.2$ ppm @ $V_{dd} \pm 5\%$ $< \pm 0.1$ ppm @ load $\pm 10\%$		
Aging (STRATUM III)	$< \pm 4.6$ ppm overall for 20years			
Operating temp. range	$-30^\circ C / +75^\circ C, -30^\circ C / +85^\circ C, -40^\circ C / +85^\circ C$			
Storage temp. range	$-40^\circ C / +85^\circ C$			
Current consumption	5mA max		3mA max	
Output	0.8Vp-p min.		$V_{ol} = 10\%V_{dd}$ $V_{oh} = 90\%V_{dd}$	
Output load	10K $\Omega$ // 10pF		15pF max	
Frequency adjustment	-	$\pm 5$ ppm to $\pm 15$ ppm		$\pm 5$ ppm to $\pm 20$ ppm
Slope	positive			
Harmonic	-5dBc max			
Start up time	3.5ms			
SSB Phase noise	-140dBc/Hz typ. @ 1KHz offset			
Short term stability	$\pm 1$ ppb max (allan variance $\tau = 1s$ )			

### Dimensions



**A**

PIN	CONNECTION	
	TCXO	VC-TCXO
1	NC or GND	Vcon
2	GND	GND
3	OUTPUT	OUTPUT
4	+V DC	+V DC

**C**

PIN	CONNECTION	
	TCXO	VC-TCXO
1	NC or GND	Vcon
2	NC or GND	NC or GND
3	E/D	E/D
4	GND	GND
5	NC or GND	NC or GND
6	OUTPUT	OUTPUT
7	OUTPUT	OUTPUT
8	NC or GND	NC or GND
9	+V DC	+V DC
10	NC or GND	NC or GND

**B**

PIN	CONNECTION	
	TCXO	VC-TCXO
1	NC or GND	NC or GND
2	NC or GND	NC or GND
3	NC or GND	NC or GND
4	GND	GND
5	OUTPUT	OUTPUT
6	NC or GND	NC or GND
7	NC or GND	NC or GND
8	E/D	E/D
9	+V DC	+V DC
10	NC or GND	Vcon

Remark : specifications subject to change without prior notice. Please confirm with our sales



# TX7050-2

## Part Number Generator

**TX7050-2S H 01 A S T - 010.000000 xxx**  
 0 1 2 3 4 5 6 7

**0 : Type**  
 TX7050-2S  
 TX7050-2SV  
 TX7050-2C  
 TX7050-2CV

**1 : Vcc**  
 H = +2.7 / 5.5V

**2 : Stability in temperature**  
 01 < ±0.1ppm  
 02 < ±0.28ppm  
 15 < ±2.0ppm  
 25 < ±2.5ppm

**3 Op. temp. range**  
 B = -30/+75  
 C = -30/+85  
 A = -40/+85

**4 : Output**  
 S = Clipped sinus

**5 : Pulling range**  
 T = TCXO  
 5 > ±5ppm  
 10 > ±10ppm

**6 : Frequency (MHz)**  
 □□□.□□□□□□  
 max 10 digits including comma

**7 : Customized code**  
 Note : factory use