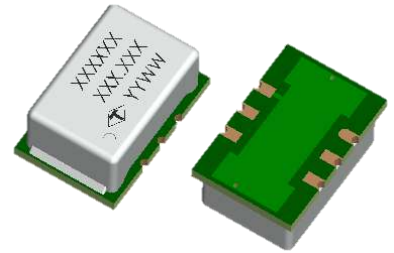


# High Frequency High Stability / Very Low Noise TCXO TK-Type series

## TK-Type Series in 14 x 9mm SMD package

TK-Type series is a high frequency performance TCXO offering high frequency and high stability / very low phase noise. The part comes in a small SMD package which makes it suitable for reflow soldering during pick and place assembly.



### FEATURES

- **Low Phase Noise**
- **High Stability for Stratum 3**
- Small SMD Package

### APPLICATIONS

**RoHS Compliant Standard**

- Time Synchronization
- Microwave Communication
- Test & Measurement
- Telecom Systems
- Satellite Communication

## ELECTRICAL SPECIFICATIONS

### 1. OUTPUT (PIN = "R.F. OUTPUT")

	Parameter	Min.	Typ.	Max.	Unit	Test Condition
1.1.	Frequency (Fo)	40		125	MHz	Standard Frequency : 50M, 92.16M, 98.304M, 100M, 120MHz
1.2.	Frequency Stability (Overall)	-4.6		+4.6	ppm	Frequency stability includes frequency tolerance@25°C and frequency stability vs. operating temperature range and voltage variance and 20 years aging.
1.3.	Holdover	-0.32		+0.32	ppm	Over 24 Hours
1.4.	Initial Tolerance	-1.0		+1.0	ppm	at 25°C
1.5.	Operating Temperature Range	-40°C ~ +85°C			°C	
1.6.	Storage Temperature Range	-40°C ~ +105°C			°C	
1.7.	Waveform	LVCMOS				
1.8.	Output Level	Output High	2.97		V	
		Output Low		0.33		
		Duty Cycle	45		55	%
1.9.	Rise/Fall Time			3	nSec.	
1.10.	Load		15		pF	
1.11.1.	Phase Noise (Max.)			-87	dBc/Hz	@ 10Hz
1.11.2.				-117	dBc/Hz	@ 100Hz
1.11.3.				-141	dBc/Hz	@ 1KHz
1.11.4.				-148	dBc/Hz	@ 10KHz
1.11.5.				-155	dBc/Hz	@ 100KHz
1.11.6.				-160	dBc/Hz	@ 1MHz

## 2. INPUT POWER (PIN = "+VDC")

	Parameter	Min.	Typ.	Max.	Unit	Test Condition
2.1.	Voltage		+3.3		V	
2.2.	Current			35	mA	At maximum supply voltage

## 3. ENVIRONMENTAL

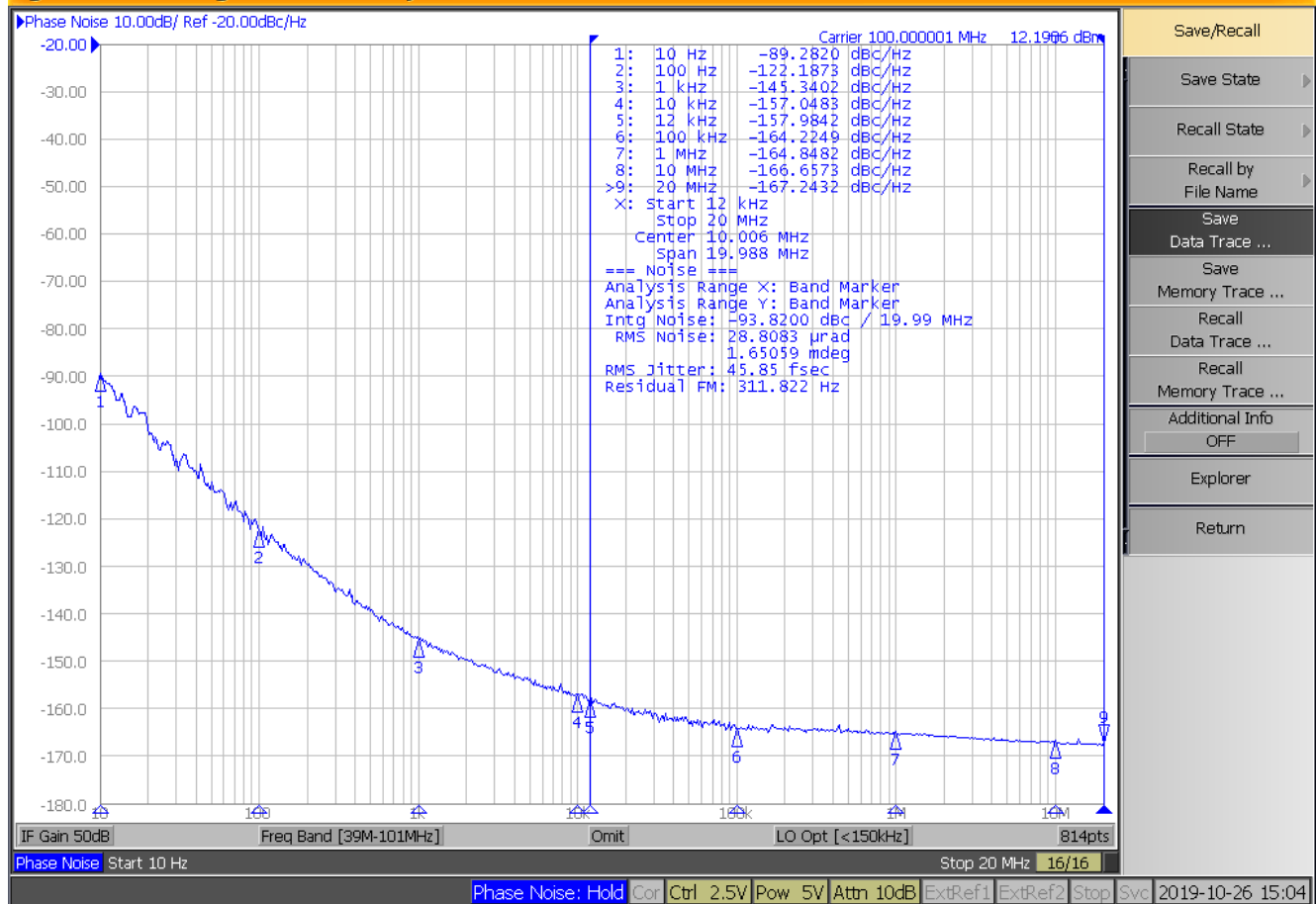
	Parameter	Reference Std.	Test Condition
3.1.	Vibration Test	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1	10~2000Hz, 1.52mm, 20G, each axis for 4 hrs
3.2.	Thermal Shock	MIL-STD-883 1010 Condition B JESD22-A104 Condition B	-55 °C , 125 °C ; soak time is 10 mins, with total 200 cycles
3.3.	Mechanical Shock	MIL-STD-883 2002 Condition B JESD22-B104 Condition B	1500G, half-sine, 0.5ms, each axis for 3 times.

**Table 1 : ORDERING INFORMATION**

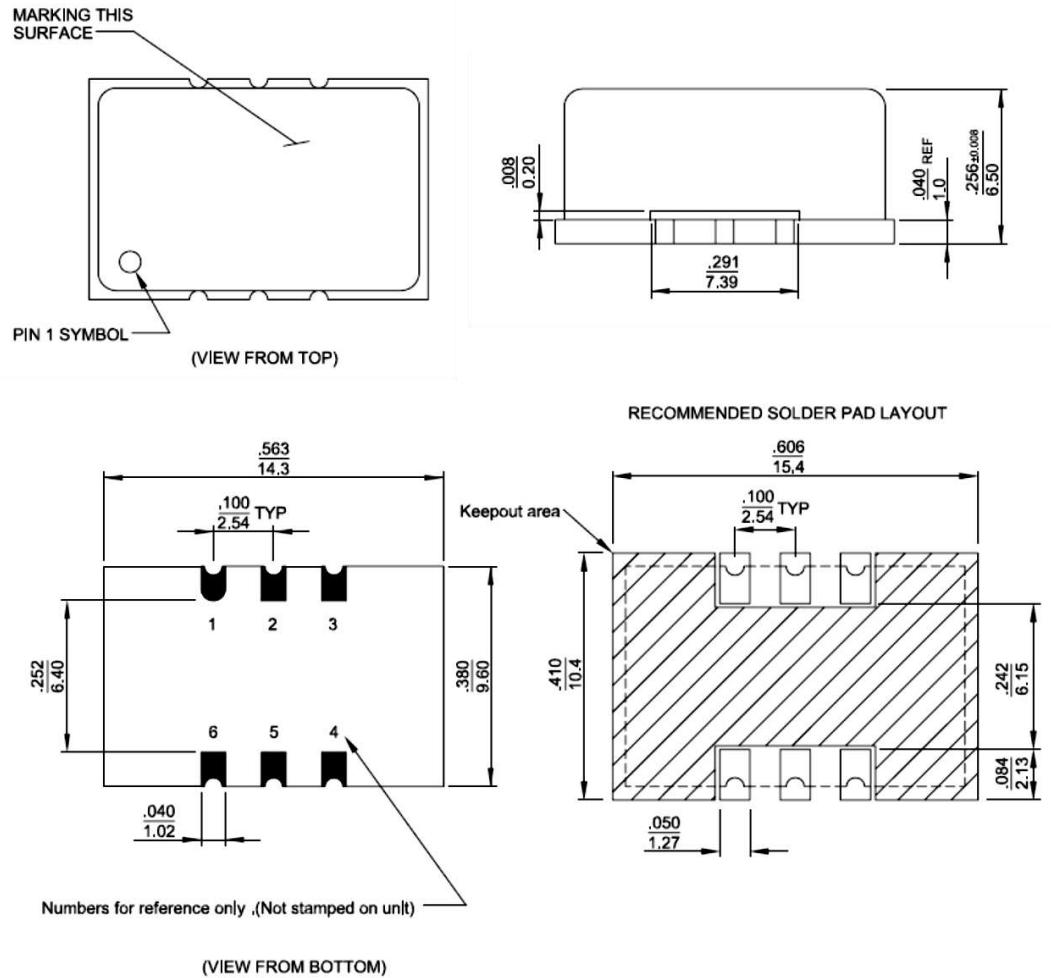
**TKETTLJTDF-Frequency**

## PHASE NOISE TEST DATA

### Agilent E5052B Signal Source Analyzer



## OUTLINE DRAWING



## Pin FUNCTIONS

Pin	Function
#1	NC
#2	NC
#3	GND
#4	Output
#5	NC
#6	VDD

## PRODUCT (MARKING)

## IDENTIFICATION

