TCXO Technical Data Sheet

Unicore

・2016 size VC-TCXO (DSA211SP 20.000MHz)

- Testing environment Page.2
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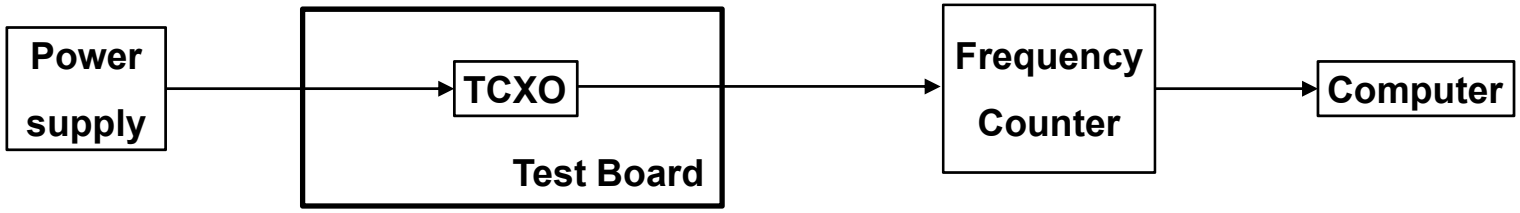
2018/12/4

Daishinku Corp.

Engineering Section

Testing environment

Block diagram



Frequency counter : Keysight 53220A

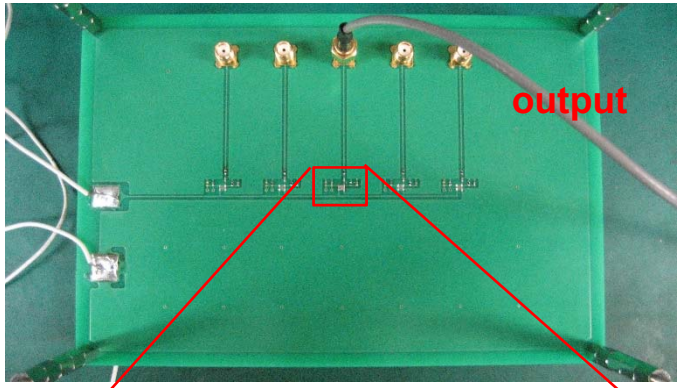


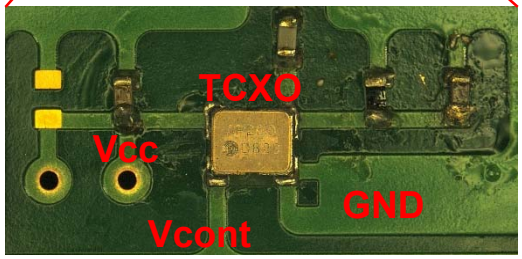
Power supply : Keysight E3631A



Test Board

Dimension:L:180 W:120 t:1.6mm
Weight:160g





Measuring method

Measuring method

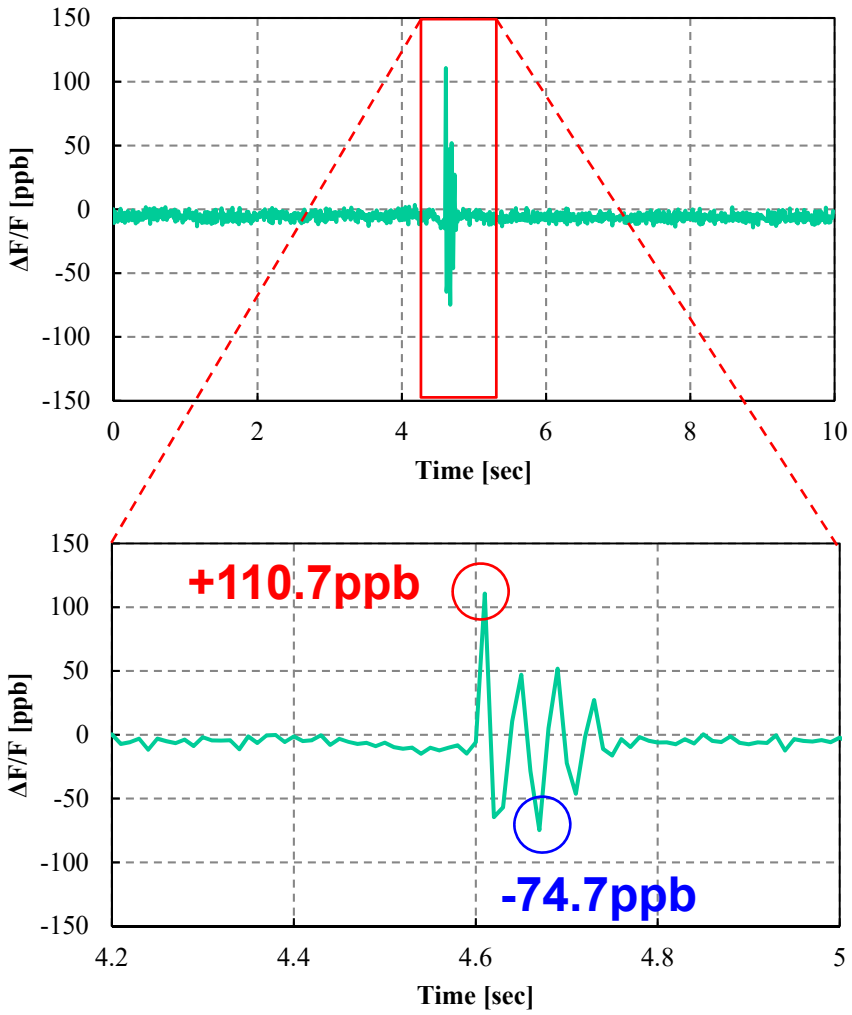
Frequency measurement : Continuous measurement for 10 seconds
Gate time 0.01sec

Falling condition : Free fall from a height of 10 cm

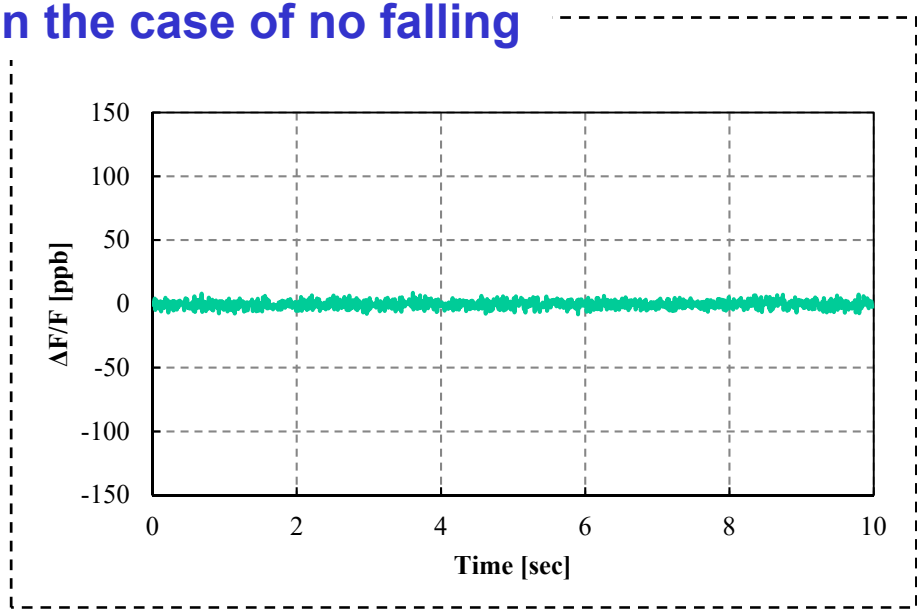
Number of falling: once

Measurement example

Measurement example



In the case of no falling



Repetitive measurement result

- **Repeat measurement 10 times for one TCXO.**
- **Maximum value of positive side fluctuation(+ΔF/F max.) and negative side fluctuation (-ΔF/F max.) for each measurement are shown at the bottom.**

Dut1

Number of measurements	+ΔF/F max. [ppb]	-ΔF/F max. [ppb]
1	110.7	-74.7
2	43.7	-70.7
3	60.8	-46.4
4	35.3	-50.2
5	27.4	-51.9
6	55.8	-40.9
7	80.6	-52.5
8	28.4	-39.5
9	68.4	-62.1
10	69.9	-66.7

max.	110.7	-39.5
min.	27.4	-74.7
x-bar	58.1	-55.6
3σ	78.0	37.0

Dut2

Number of measurements	+ΔF/F max. [ppb]	-ΔF/F max. [ppb]
1	38.4	-60.9
2	34.2	-59.5
3	40.9	-43.8
4	36.2	-29.6
5	119.4	-72.3
6	38.5	-40.0
7	12.1	-31.1
8	37.4	-65.2
9	72.6	-53.3
10	164.4	-93.7

max.	164.4	-29.6
min.	12.1	-93.7
x-bar	59.4	-55.0
3σ	141.1	59.4