DSO211AR TYPE SPXO SPECIFICATION

1. Device Name SPXO (Output Load Condition C-MOS)
2. Type DSO211AR
3. Frequency 40.000MHz
4. Absolute Maximum Value

	Item	Symbol	Rating	Unit
1	Supply Voltage	V_{CC}	-0.5 ~ +5.0	V
2	Storage Temperature Range	T_{stg}	-40 ~ +105	℃

5. Recommended Operating Conditions

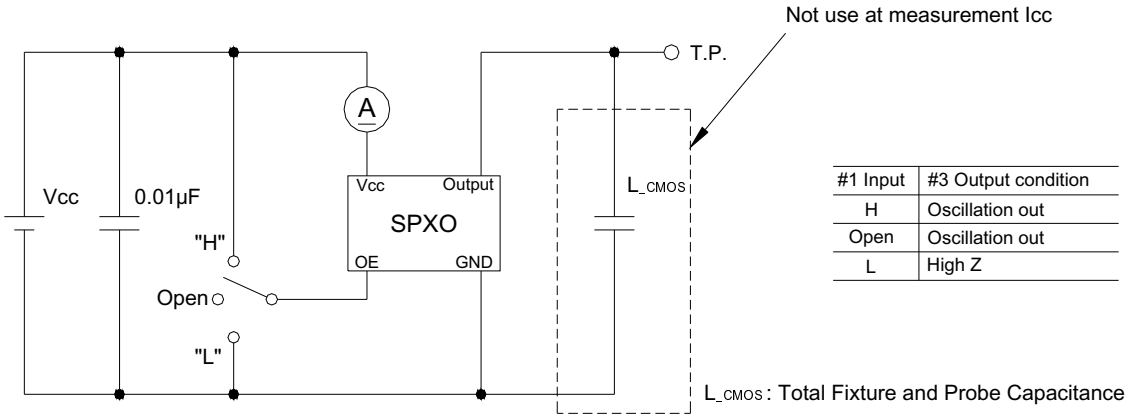
	Item	Symbol	min.	typ.	max.	Unit
1	Supply Voltage	V_{CC}	+3.0	+3.3	+3.6	V
2	Operating Temperature Range	T_{opr}	-40	-	+105	℃
3	Output Load	$L_{_CMOS}$	-	-	15	pF

6. Electrical Characteristics

(T_a=+25℃,V_{CC}=+3.3V unless otherwise noted)

	Item	Symbol	Test Conditions	Limits			Unit
				min.	typ.	max.	
1	Frequency Stability	f_{tol}	V_{CC}=+3.3V ±0.3V T_a=-40 ~ +105℃	-50	-	+50	ppm
2	Supply Current	I_{CC}	at No Load,#1pin:" H" or open	-	-	4.0	mA
	Standby Current	I_{-std}	#1pin:" L"	-	-	0.01	mA
3	Output Character		15pF				
	3-1.Symmetry	SYM	0.5V_{CC} level	40	50	60	%
	3-2.Rise Time	t_r	0.1V_{CC} ~ 0.9V_{CC}	-		8	ns
	3-3.Fall Time	t_f	0.9V_{CC} ~ 0.1V_{CC}	-		8	ns
	3-4.Low Level	V_{OL}		-	-	V_{CC}x0.1	V
	3-5.High Level	V_{OH}		V_{CC}x0.9	-	-	V
4	Input Character						
	4-1.Output enable time	t_{pzl}				5	ms
	4-2.Output disable time	t_{plz}		-	-	150	ns
	4-3.Enable input	V_{IH}		V_{CC}x0.8	-	-	V
	4-4.Disable input	V_{IL}		-	-	V_{CC}x0.2	V

Measurement circuit and output wave form is refer to Fig.1. and Fig.2.



#1 Input	#3 Output condition
H	Oscillation out
Open	Oscillation out
L	High Z

Fig.1.Measurement circuit

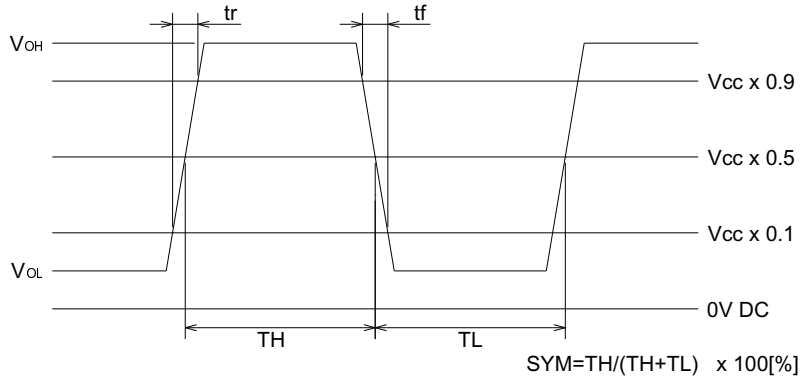


Fig.2.Output wave form

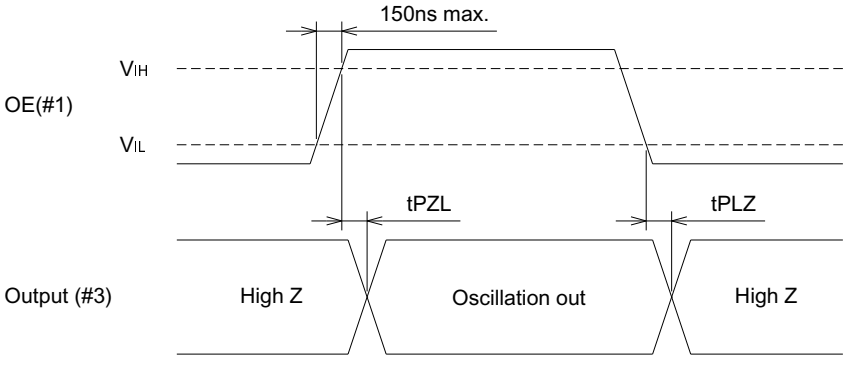
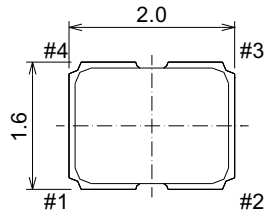


Fig.3.Input output condition

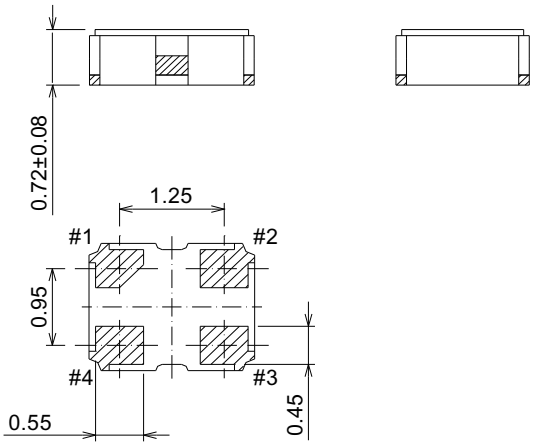
7. Outline,Pin Connections



Pin Connections	
Pin No.	Connection
#1	OE(Output Enable)
#2	GND
#3	Output
#4	Vcc

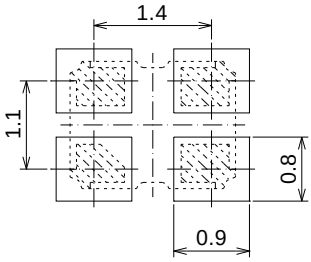
Tolerance : ±0.1

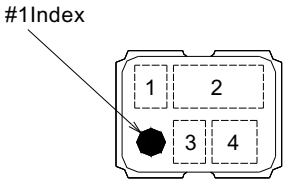
Unit : mm



Recommended Land Pattern

<Tpo view>





【Type Code】

Type	Marking
DSO211AR	R
DSO211AH	H
DSO211AB	B

1.Type : refer to 【Type code】

2.Nominal Frequency : 40.0

(Include decimal point 4 dight)

3.KDS LOGO : D

4.Lot No.

Year : Last digit of the year (e.g.2017 → 7)

Week : 2digit of the week (e.g.01~)

8. Supplement

8.1.Soldering

Peak-temperature 260℃ 10sec max. , 2times max.

If the temperature is higher than 280 °C, there is a possibility for the sealing alloy to remelt.

8.2.Solder Iron

Bit temp.:350 ℃ max.,Time:3 s max., Each terminal solder a 1 time max.

Please take care so that a soldering iron should not touch a product directly.