



# 6 H P L W H K ( O H F W U R Q L F V

## LN-220 Series Audiophile Grade Crystal Oscillator

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W ] v E } •	W ] v ( ] v ] š ] } v
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# □ Semi tech lectronics

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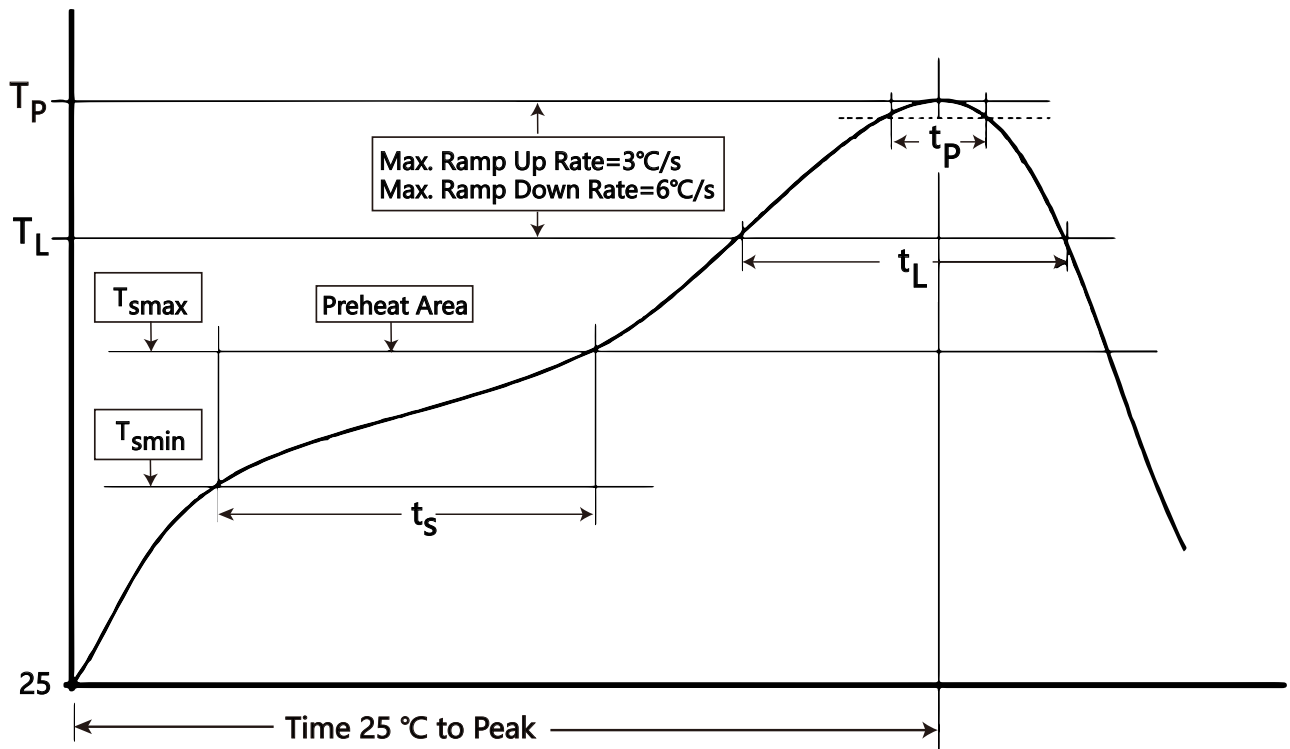
		[				
				12.288		MHz
		°C °C	-10		10	
	5	~ °C	-30		30	
	t			-85		dBc/ Hz
				-100		
				-145		
				-150		
				-160		
	a t	a		0.5		pSec
		°C	-3		3	ppm

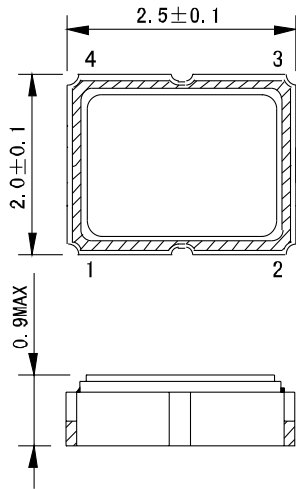


1	5		$\Delta FL \leq 5ppm$
2		( )	$\Delta FL \leq \pm 5ppm$
3	[	$^{\circ}C$ $^{\circ}C$	$\Delta FL \leq \pm 5ppm$
4		$^{\circ}C$ $^{\circ}C$	$\Delta FL \leq \pm 5ppm$
5		$^{\circ}C$ $^{\circ}C$	$\Delta FL \leq \pm 5ppm$
6		$^{\circ}C$ $^{\circ}C$ ( ) $^{\circ}C$ $^{\circ}C$ ( )	$\Delta FL \leq \pm 5ppm$
7		$^{\circ}C$ $^{\circ}C$ $^{\circ}C$ $^{\circ}C$ $^{\circ}C$	$\Delta FL \leq \pm 5ppm$
8		$^{\circ}C$	Visual no significant corrosion.
9		$^{\circ}C$	$\Delta FL \leq \pm 5ppm$
10	[	a	$<1.0 \times 10^{-9} Pa \cdot m^3 / s.$
11		5	Soldering tin rate greater than 95%



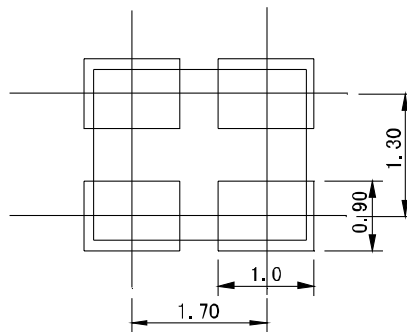
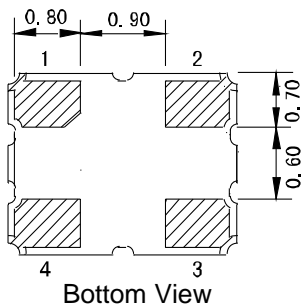
Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat/Soak		
● Temperature Min ( $T_s$ min)	100 °C	150 °C
● Temperature Max ( $T_s$ max)	150 °C	200 °C
● Time ( $T_s$ min to $T_s$ max)	60-120 seconds	60-120 seconds
Ramp-up rate ( $T_L$ to $T_p$ )	3 °C/second max.	3 °C/second max.
Time maintained above		
● Liquidous temperature ( $T_L$ )	183 °C	217 °C
● Time ( $t_L$ ) maintained above $T_L$	60-150 seconds	60-150 seconds
Peak package body temperature ( $T_p$ )	235 °C	260 °C
Time within 5 °C of the specified classification temperature ( $T_p$ )	20 seconds	30 seconds
Ramp-down rate ( $T_p$ to $T_L$ )	6 °C/second max.	6 °C/second max.
Time 25 °C to peak temperature	6 minutes max.	8 minutes max.
<b>Suggest reflow times</b>	<b>3 Times max.</b>	



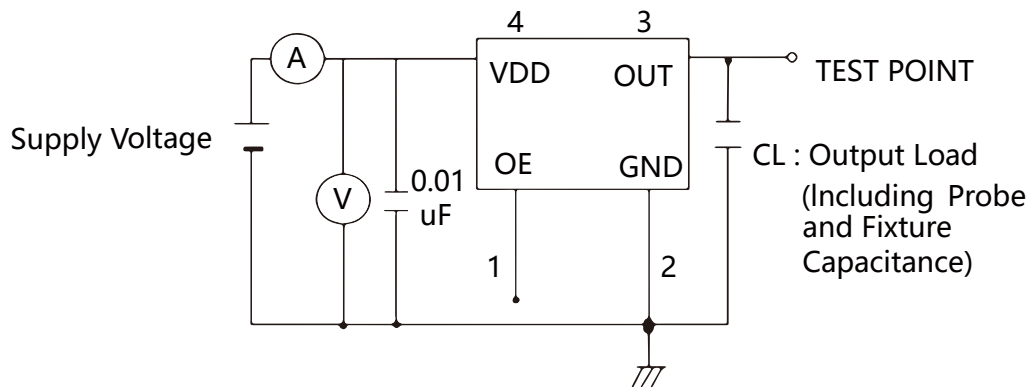


Units: mm

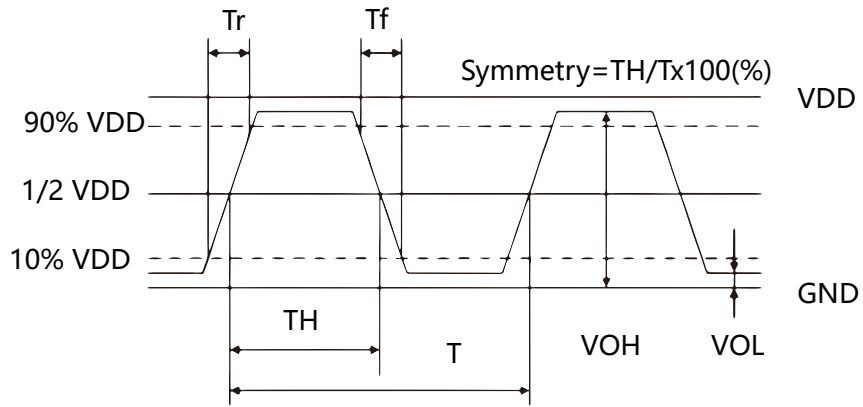
- Pad Functions:
1. ENABLE CONTROL
  2. GND
  3. OUT PUT
  4. VDD



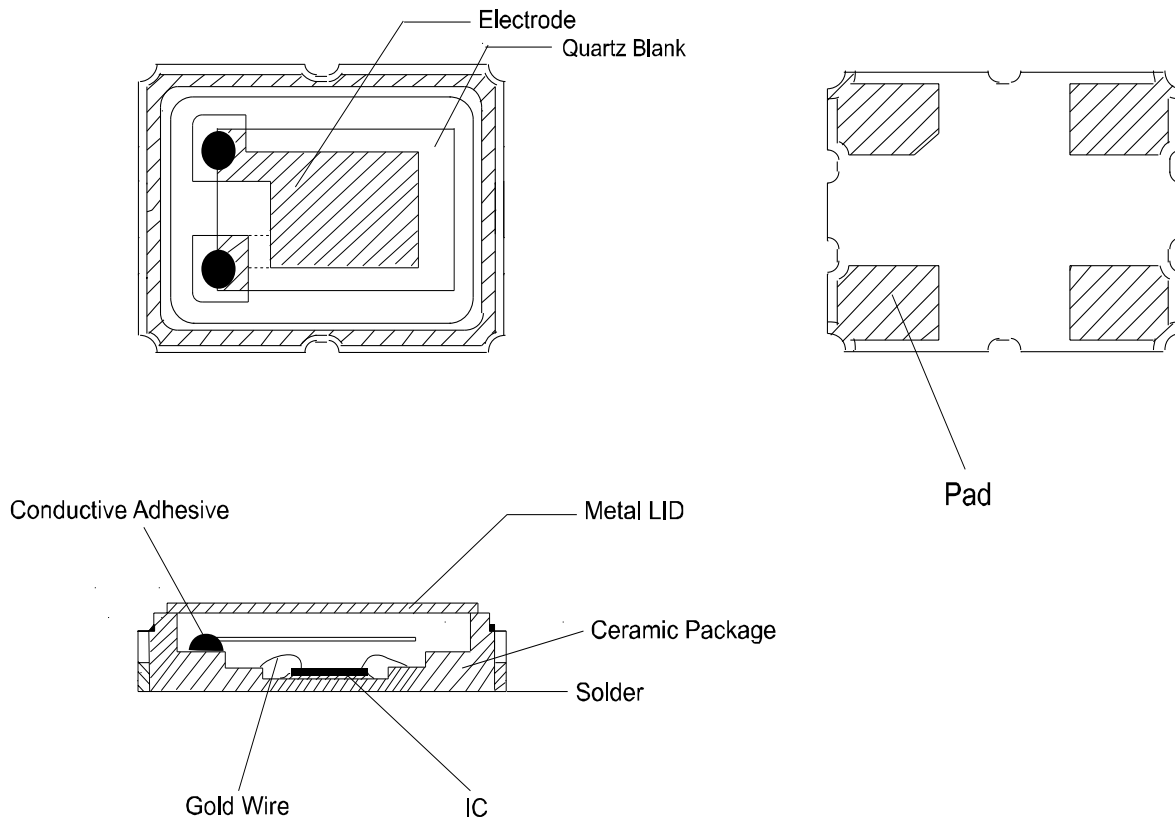
suggested solder pad layout

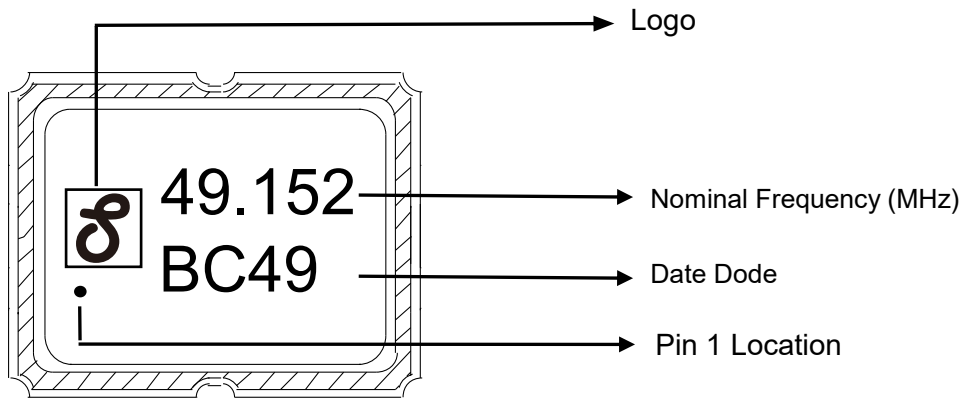


※ Notes: PIN 1 connected to Vdd or floating, the product is working properly; connected to GND, stops working.



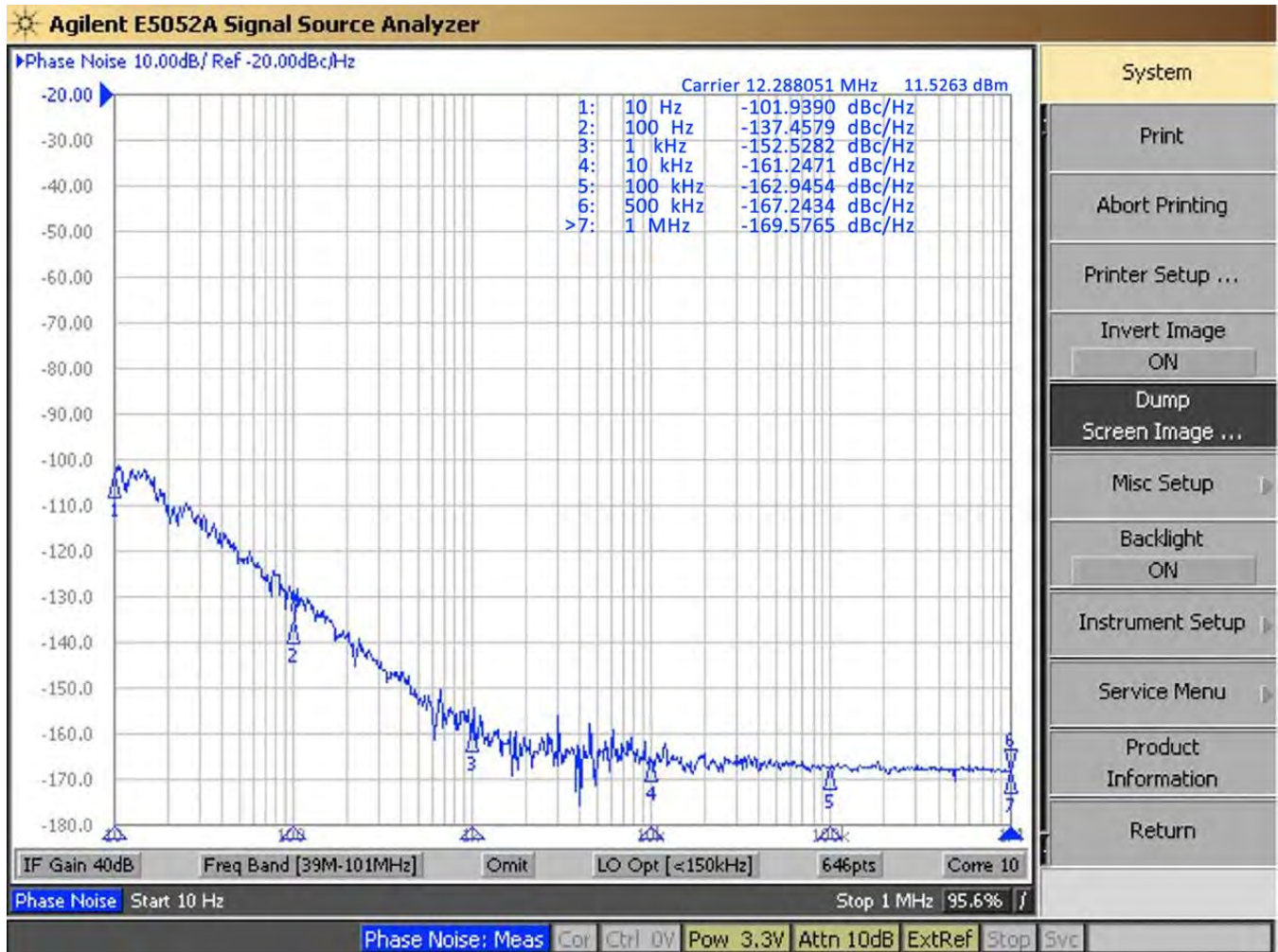
Waveform measurement system should have a min. bandwidth of 5 times the frequency being tested.





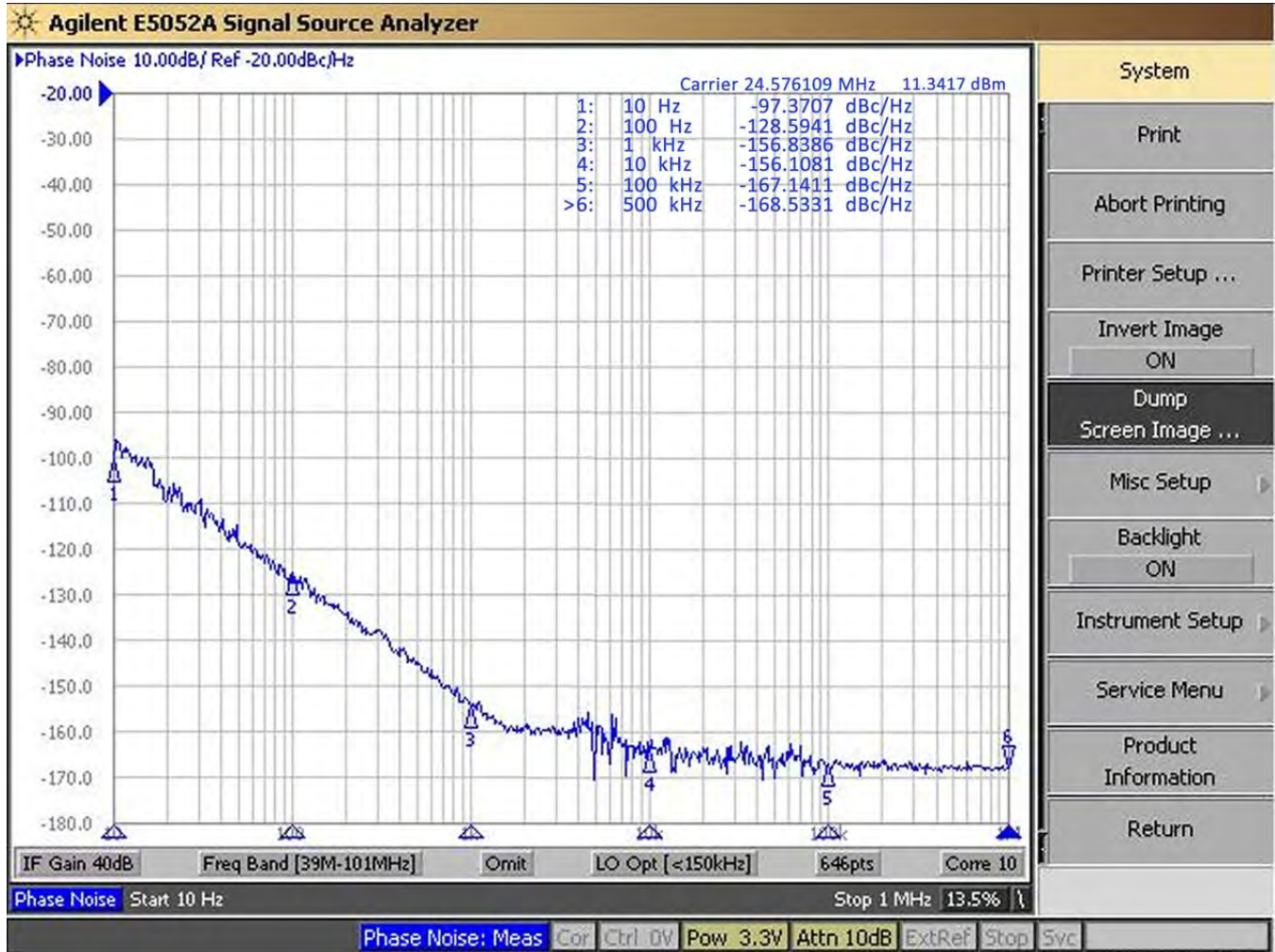


## Tested on 12.288MHz

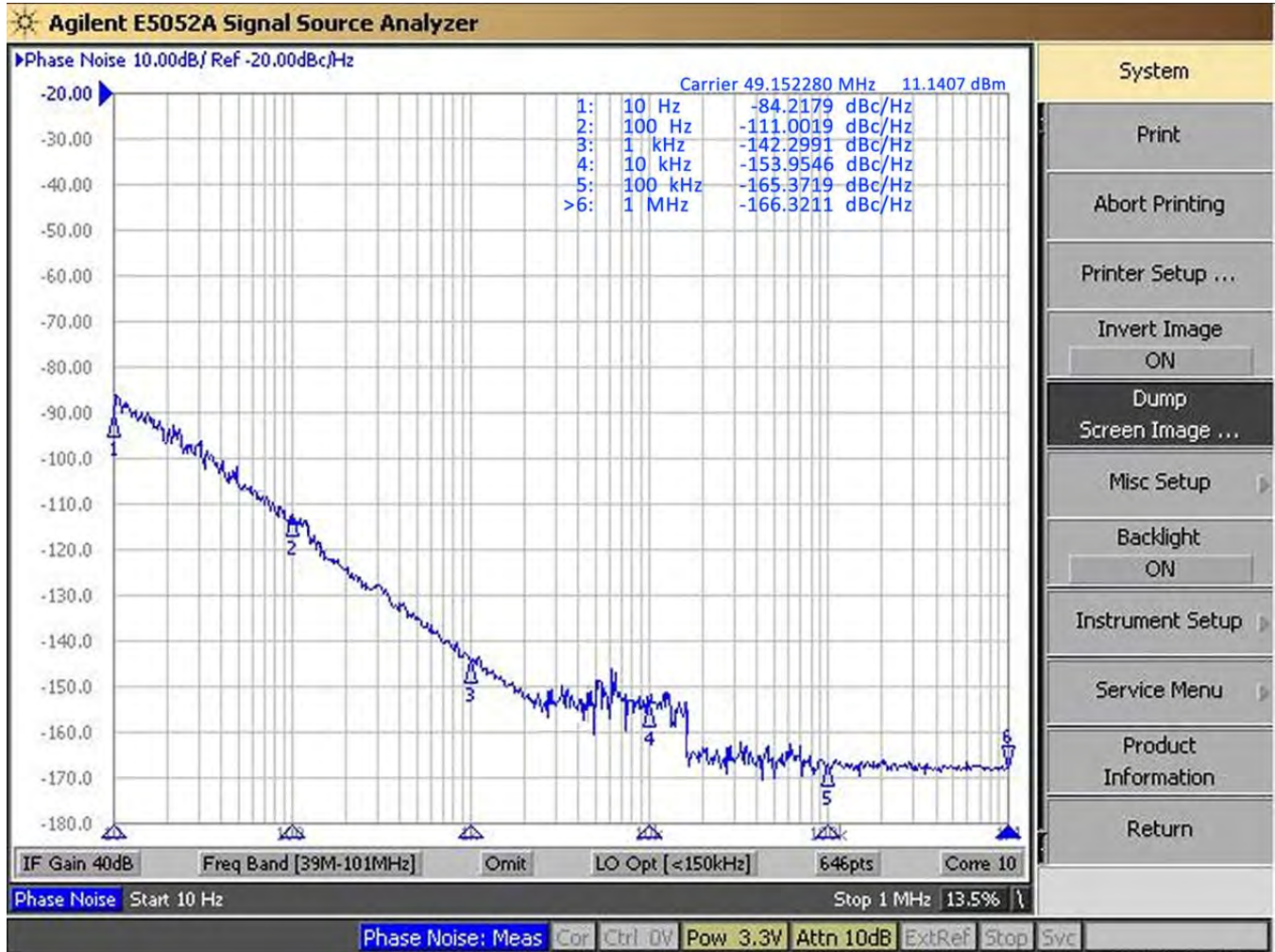




## Tested on 24.576MHz



## Tested on 49.152MHz

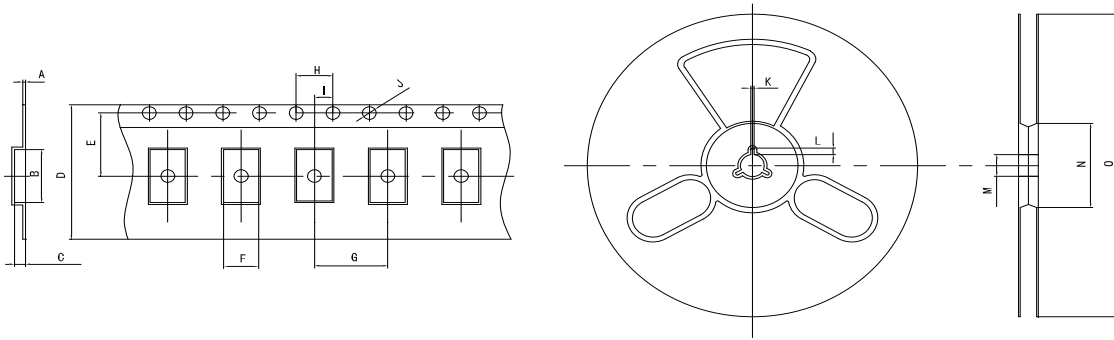




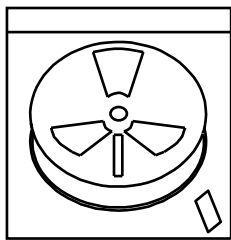





UNIT: mm

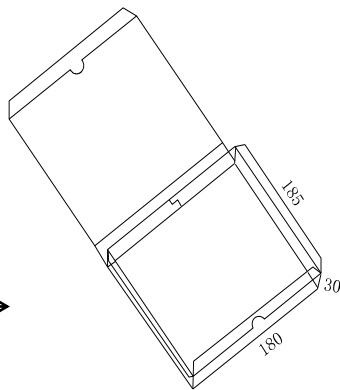


TEVE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
2.5×2.0 SMD	0.25	2.80	1.15	8.00	3.50	2.30	4.00	4.00	2.00	1.50	2.00	4.00	13.00	60.00	180.00



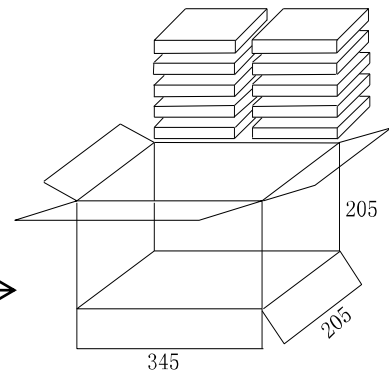
Bag

3000pcs = 1 Reel



Inside package

1 Reel=1 box



Outside Package

10 box=1 carton