

Travelling Merchant: _____

DATASHEET

Standard: DP7C1920001

Plot			The Label
Drew	Audited	Approved	
Date: 2018.05.21			Stamp, please! Thanks!

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1、 Electrical Parameters

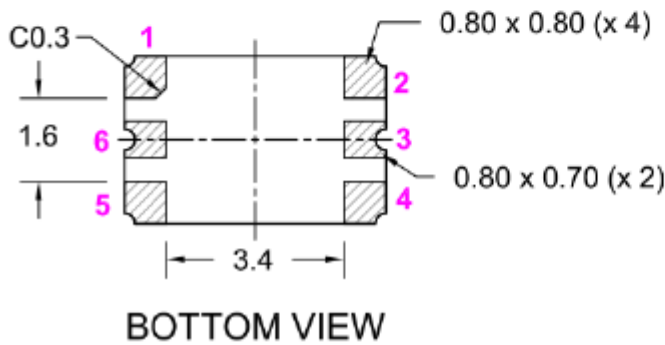
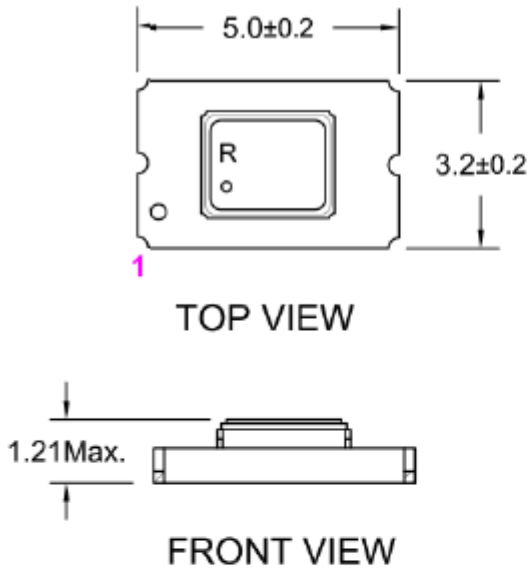
MODEL: DP7C19200001							
No.	Parameters	SYM.	Electrical Spec.				Notes
			Min.	Typ.	Max.	Units	
1	Nominal Frequency	FL	19.20			MHz	
2	Output Waveform	-	Clipped Sine				
3	Frequency calibration			-	± 1.0	$\times 10^{-6}$	Offset from nominal frequency measured at 25 °C ± 2 °C, Vc=1.25V
4	Frequency stability over temperature ^{2 3}				± 0.1	$\times 10^{-6}$	0 °C~85 °C
					± 0.25	$\times 10^{-6}$	-40 °C~85 °C
5	Sensitivity to supply voltage variations				± 50	$\times 10^{-9}$	Supply voltage varied $\pm 5\%$ at 25 °C
6	Sensitivity to load variations				± 50	$\times 10^{-9}$	$\pm 10\%$ load change at 25 °C ⁴
7	Supply Voltage			2.85		V	$\pm 5\%$
8	Control Voltage		0.25		2.25	V	
9	Pulling Range		± 5		± 10	$\times 10^{-6}$	Reference to frequency at Vc = 1.25V
10	Linearity				10	%	
11	Load(Impedance)	R		10		K Ω	
12	Load(Capacitance)	C		10		pF	
13	Frequency slope ^{2 3}			$< \pm 25$	± 50	$\times 10^{-9}/^{\circ}\text{C}$	
14	Operating Temperature	-	-40	~	+85	°C	
15	Reflow shift			-	± 1.0	$\times 10^{-6}$	Two consecutive reflows as per attached profile after 2 hours relaxation at 25 °C
16	Current Consumption	Icc			3.5	mA	At VDD=2.85V, 10k Ω /10pF load
17	Output level	Vp-p	0.95			Vpp	At minimum supply, 10k Ω /10pF load
18	Long term stability (at 25 °C)				± 20	$\times 10^{-9}$	24 hours
					± 200	$\times 10^{-9}$	1 month
					± 1	$\times 10^{-6}$	1 year
					± 2	$\times 10^{-6}$	3year
19	Storage Temperature Range	-	-55	~	+125	°C	
20	Start up time(amplitude)				1	ms	Time taken for output to reach 90% of specified output level
21	RMS phase jitter			360		fs	12KHz to 5MHz



22	Phase Noise	Phase Noise		-68		dBc/Hz	1Hz
				-95			10Hz
				-118			100Hz
				-141			1KHz
				-155			10KHz
				-156			100KHz
				-156			1MHz
				-156			5MHz
23	RoHS compliant	Parts are fully compliant with the European Union directives 2002/95/EC and 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment. Note the RoHS compliant parts are suitable for assembly using both Lead-free solders and Tin / Lead solders.					
24	Shock	[IEC 60068-2-27]. Half sine-wave acceleration of 100g peak amplitude for 6ms duration, 3 cycles each plane					
25	Humidity	After 48 hours at 85 °C ±2 °C 85% relative humidity non-condensing ⁷					
26	Vibration	Exposed at -40 °C for 30 minutes then to 85 °C for 30 minutes constantly for a period of 5 days ⁷					
27	Thermal Shock	Exposed at -40 °C for 30 minutes then to 85 °C for 30 minutes constantly for a period of 5 days ⁷					
<p>Note:</p> <p>¹ Storing temperature over 85 °C will reduce life time of the product. Operating beyond this limit may result in change or permanent damage to the device</p> <p>² Referenced to the midpoint between minimum and maximum frequency value over the specified temperature range. Temperature varied at maximum of 1 °C per minute.</p> <p>³ Parts should be shielded from drafts causing unexpected thermal gradients. Temperature changes due to ambient air currents on the oscillator can lead to short term frequency drift</p> <p>⁴ Measurement load condition is 10kΩ//10pF for CS and 15pF for CMOS</p> <p>⁵ For AC coupling, typically for CS output, an external capacitor (greater or equal 1nF) is required</p> <p>⁶ More phase noise data available on request.</p> <p>⁷ The environmental condition will cause less than 1ppm shift in frequency measured at 25 °C</p>							



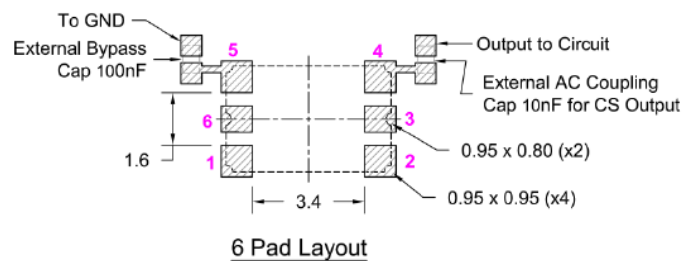
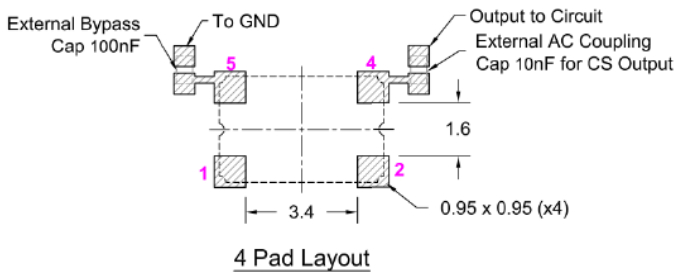
2、Mechanical Structure(mm)



Pin Connections

Pin	Connections
1	Control voltage (Vc)
2	GND
3	Do not connect
4	RF output
5	VDD
6	Do not connect

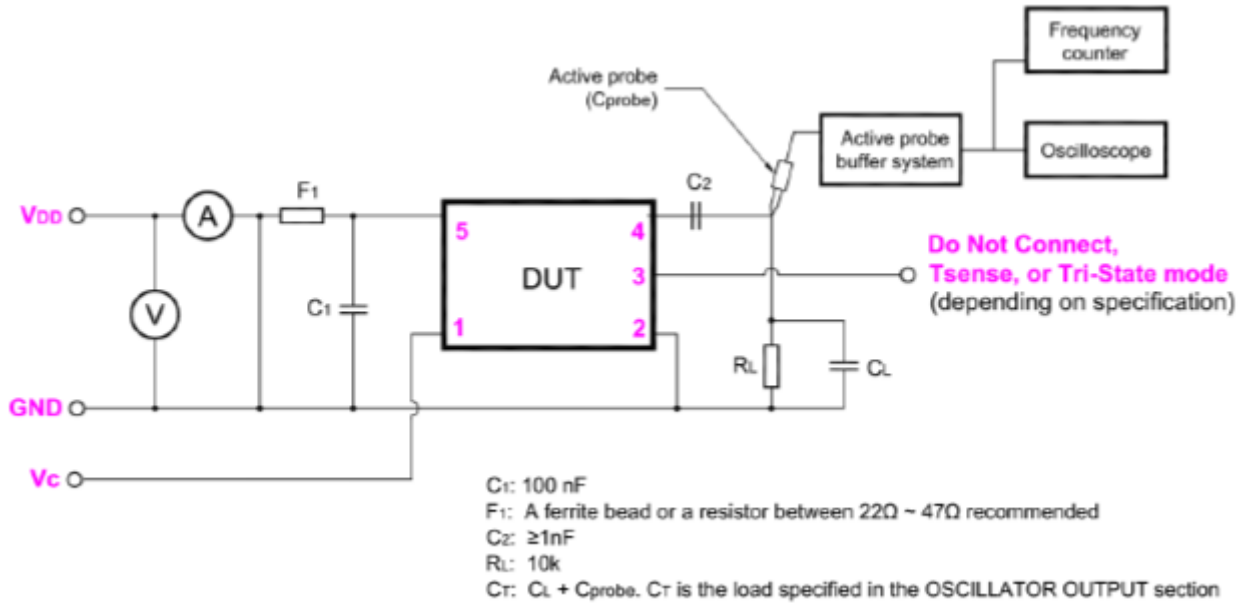
RECOMMENDED PAD LAYOUT - TOP VIEW



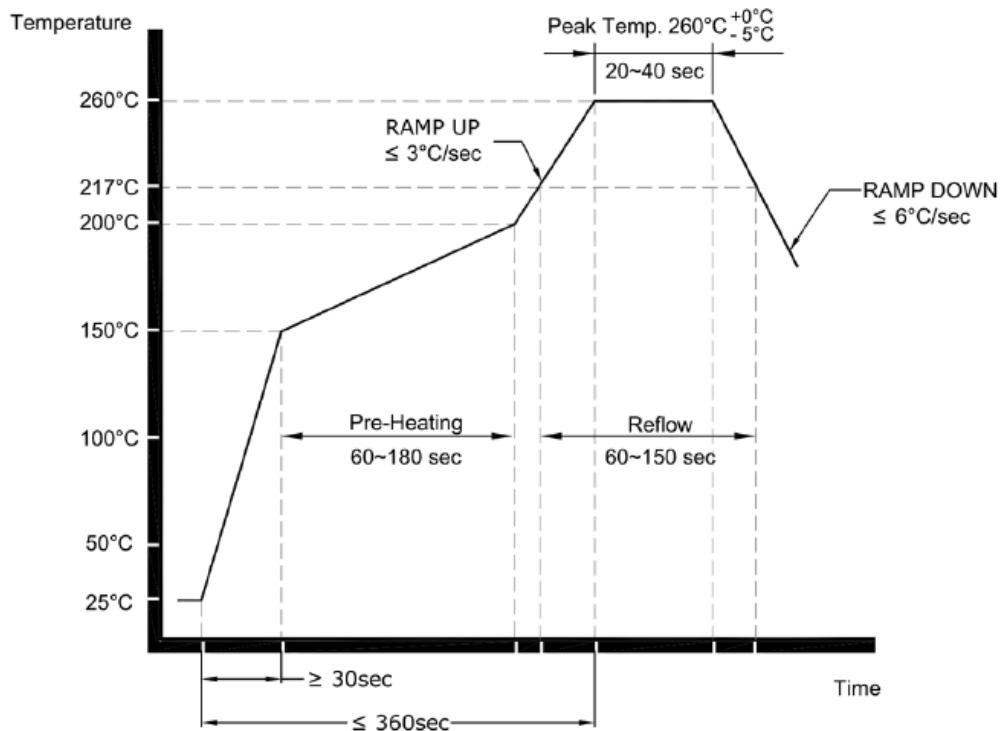
Note1: Tolerance ± 0.20 mm without mark



3、 Test Circuit



4、 Reflow





5、 Package: Tape & Reel (mm)

