

DIFFERENTIAL OSCILLATOR

DO70A SERIES



Features

- External dimensions: 7.0×5.0×1.45mm
- Ultra low integrated phase jitter<100fs,12KHz to 20MHz
- Typical phase jitter 50fs@ 156.25MHz, LVPECL,LVDS,HCSL
- Operation supply voltage:1.8V,2.5V,3.3V
- 40Gbit/100Gbit Ethernet,MAN,SONET,Test instrumentation,Fiber channel

Specifications

Parameter		LVPECL				Unit
		3.3V		2.5V		
		Min.	Max.	Min.	Max.	
Supply Voltage Variation(V_{DD})		2.97	3.63	2.25	2.75	V
Frequency Range		100	170	100	170	MHz
Standard Frequency		100,125,122.88,156.25				
Power current consumption		-	65	-	65	mA
Output Level	Output High	2.215	2.42	1.415	1.64	V
	Output Low	1.49	1.68	0.69	1.88	V
Transition Time	Rise Time	-	0.4	-	0.4	nSec
	Fall Time	-	0.4	-	0.4	
Duty Cycle		45	55	45	55	%
Start-up time		-	5	-	5	mSec
Tri-state mode (Input to pin)	Disable	0.7*VDD	-	0.7*VDD	-	V
	Enable	-	0.3*VDD	-	0.3*VDD	
Stand by Current		-	30	-	30	uA
Output Loading		50Ω, V_{DD} -2V				
Phase Noise		Typ.	Max.	Typ.	Max.	
At V_{DD} =3.3V f_{out} =156.25MHz	10KHz offset	Typ.: -150				dBc/Hz
	100KHz offset	Typ.: -155				
	1MHz offset	Typ.: -160				
RMS Phase Jitter(12KHz to 20MHz)		-	0.1	-	0.1	pSec
Aging(@25°C, First year)			±3		±3	ppm
Storage Temp.range		-55	125	-55	125	°C

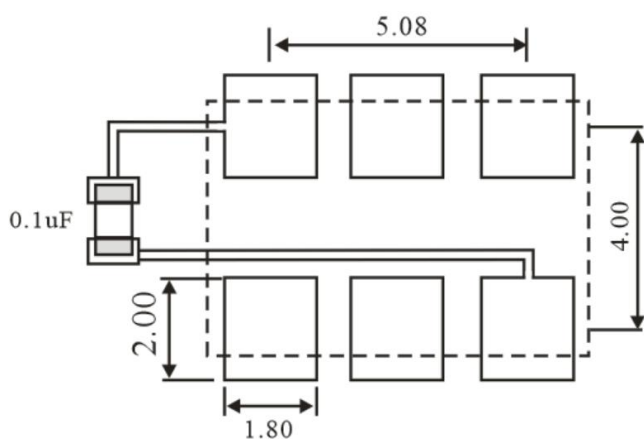
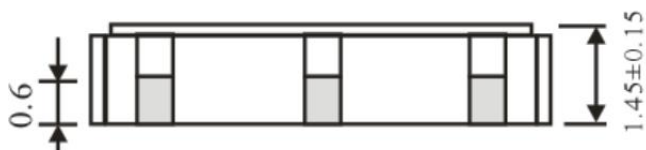
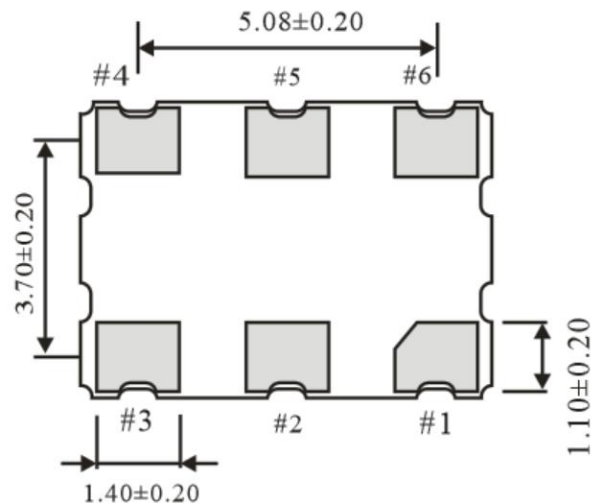
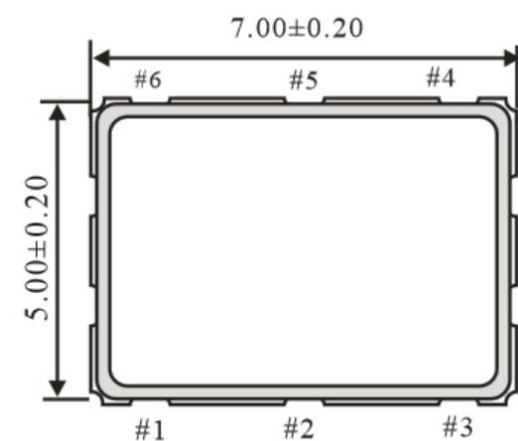
CRYSTAL OSCILLATOR

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Dimensions

(Unit:mm)



Pin #	Function	
1	NC/Tri-State	NC
2	Tri-state/NC	OE
3	GND	GND
4	Output	Output
5	Comp. Output	NC
6	V _{DD}	V _{DD}

To ensure optimal oscillator performance, place a by-pass capacitor of 0.1uF as close to the part as possible between VDD and GND pads