



ShaanXi DongXin HengKe Electronics Co., LTD  
陕西东芯恒科电子有限公司

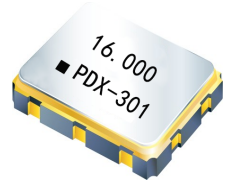
## SMD PROGRAMMABLE CRYSTAL OSCILLATOR SMD X'TAL 3.20 x 2.50mm

### Applications

10GB Ethernet,  
SONET,SATA,SAS  
Fibre Channel

### Features

Dimensions:3.20x 2.50mm  
Excellent Reliability Performance  
Freq range:16~1500MHz.  
Output LVPECL or LVDS



### Specifications

LTEM/TYPE	LVPECL	LVDS	REMARKS	
Frequency Range	16MHz~1500MHz			
Supply Voltage	1.8VDC~2.5VDC~3.3VDC±10%			
Current Consumption	80mA Max	50mA Max	OE=Vcc, LVPECL=(50)Ω or LVDS=(100)Ω	
Disable Current	16mA TYP		OE=GND	
Frequency Stability	±50ppm			
Operating Temp. Range	40~+85°C, or specify			
Storage Temp. Range	-55~+125°C			
Output Voltage (LVPECL)	VOH=Vcc-1.03	--	DC characteristics	
	VOL=Vcc-1.6	--		
Output Voltage (LVDS)	--	VOD= 175mV	VOD1, VOD2	DC characteristics
	--	dVOD=50mV Max.	dVOD= VOD1-VOD2	
	--	VOS= 1.25V	VOS1, VOS2	
	--	dVOS=50mV Max.	dVOS= VOD1-VOD2	
Output Load Condition	L_PECL=50Ω	--	Terminated to Vcc-2.0V	
	--	L_LVDS=100Ω	Connected between OUT to OUT	
Input Voltage	VIH=70% VccMin, VIL=30%Vcc Max		OE terminal	
Output Symmetry	45~55%			
Rise Time/Fall Time	1nS Max		LVPECL: Between 20% and 80% of (VOH-VOL), LVDS:Between 20% and 80% Differential Output peak to peak voltage	
Start-up time	10mS		Time at minimum supply voltage to be 0 s	
Aging	±3ppm		25°C First year, Vcc=2.5V,3.3V	
Phase Jitter(12KHZ~20MHZ)	1.0ps Typ.		200MHZ~800MHZ	
	2.0ps Typ.		801MHZ~1500MHZ	

### PIN DIMENSION

Pin	#1	#2	#3	#4	#5	#6
FUNCTION	OE	NC	GND	OUT+	OUT-	VDD

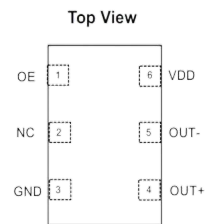
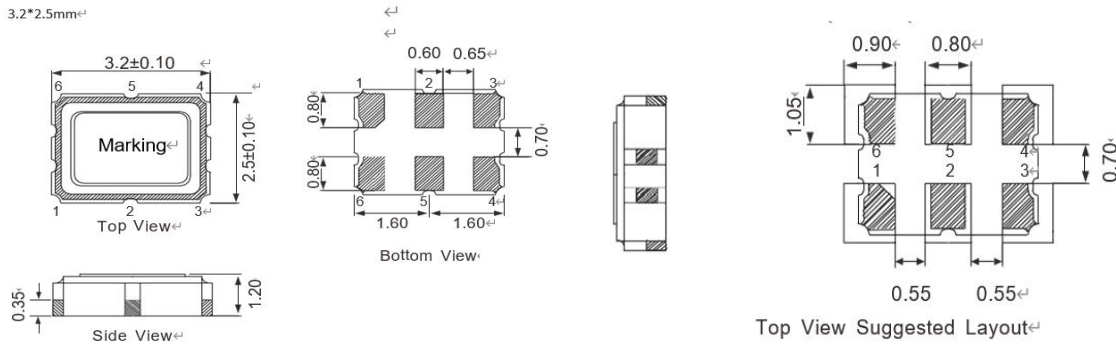


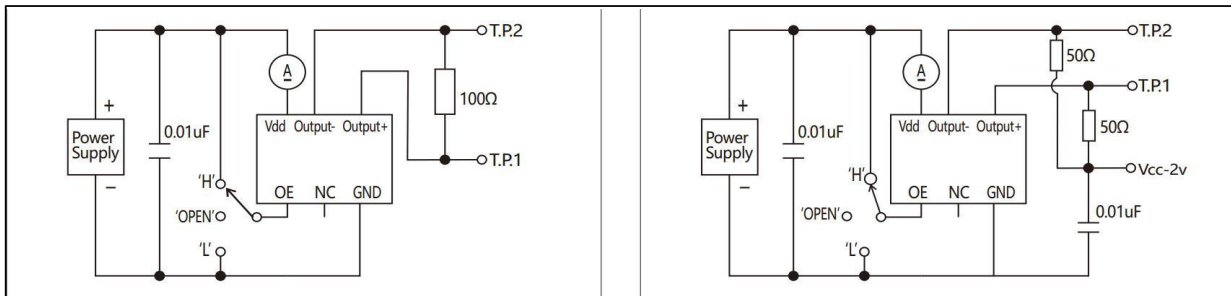
Figure 1. Pin Assignments

## SMD PROGRAMMABLE CRYSTAL OSCILLATOR SMD X'TAL 3.20 x 2.50mm

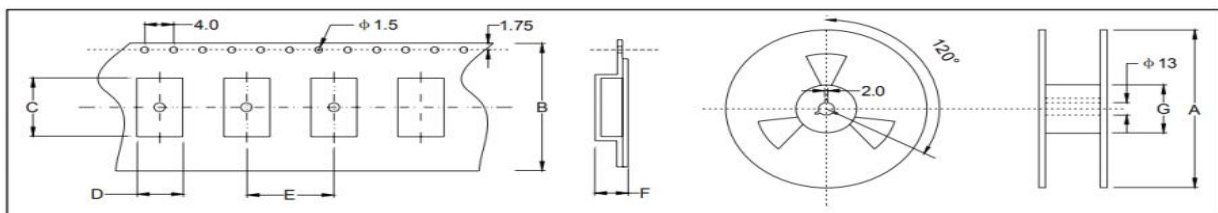
### Dimensions and Patterns [unit:mm]



### TEST CIRCUIT

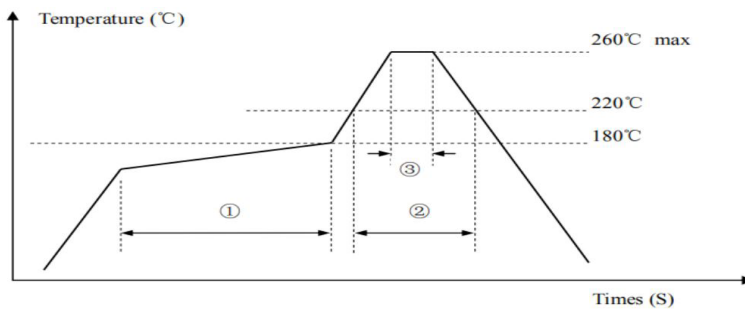


### Taping Specification(Unit: mm)



	A	B	C	D	E	F	G
OSC-SMD3225	178±2.0	8.0±0.3	3.55±0.10	2.80±0.10	4.0±0.1	1.4±0.1	60.5±1.0
3000 pcs per reel							

### REFLOW SOLDERING PROFILE



Pb free reflow A	①	Preheat	160~180°C	120sec. max
	②	Primary heat	220°C	60sec. max
	③	Peak	260°C	10sec. max.