



UK SIMAKE COMMUNICATION GROUP LTD

Model:SMK5032VCDS

SMD Voltage Controlled Crystal Oscillator

Ultra Low Noise VCXO in 5.0 x 3.2 mm Surface Mount Package.

Product description

The SMK5032VCDS is a very high performance VCXO delivering ultra low close-in phase noise for RF/Analog applications and ultra low RMS phase jitter optimised for high speed serial data and digital applications.

Applications

Communications

Base stations

DSL/ADSL

SONET/SDH

WiMAX/W-LAN

Ethernet Wi-Fi

Features

Excellent close-in phase noise performance

Ultra Low Jitter 0.05 to 0.3 ps integrated 12 kHz to 20 MHz

LVC MOS, LVPECL, or LVDS options

Wide frequency range

Specification for electrical appliances

Parameter	3.3V		Unit
	MIN	MAX	
Supply Voltage(VDD) 5%	3.135	3.465	V
Frequency Range	1	800	MHz
Frequency Stability	± 30	± 50	ppm
Supply Current /For LVDS	30	80	mA
Absolute Pull Range	± 50		ppm
Total Pull Range: Frequency shift from minimum to maximum control voltage	100	250	ppm
Control Voltage: Nominal 1.65V	0	3.3	V
Linearity Control voltage 0.3 to 3V		10	%
Differential Output:Voltage Swing		350	mV
RMS Phase Jitter : Typical integrated 12kHz to 20MHz	0.05	0.3	ps
Rise Time / Fall Time RL = 100 Ω / CL = 10 pF		0.6	ns
Duty Cycle	45	55	%
SSB PHASE NOISE:25°C	77.76	122.88	MHz
10Hz	-73	-67	dBc/Hz
100Hz	-100	-98	
1KHz	-128	-127	
10KHz	-137	-147	
100 kHz	-148	-150	
Storage Temperature Range	-55	125	° C
Storage Temp. Range	-40	85	° C

Specifications subject to change without notice

EMAIL: EVA@CIMAKE.COM.CN MARK@CIMAKE.CO.UK

TEL: +44 0208 492 6388

FAX: +44 0208 492 0196

COMPANY ADDRESS: 419, HARBOME ROAD , EDGBASTON, BIRMING. B15 3LB



5.0*3.2*1.2mm



MANUFACTURING INFORMATION

Line Parameter	Description
Packaging Description	Tape and reel. Standard packing quantity is 4000 per reel
Reflow	Solder reflow process as per attached profile

ENVIRONMENTAL SPECIFICATIONS

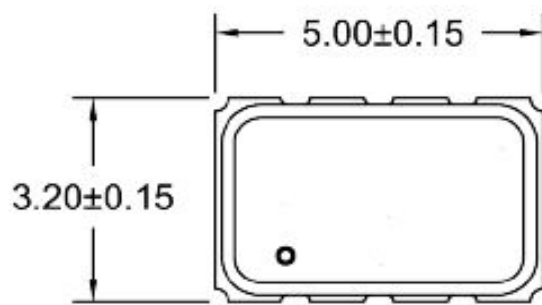
Line Parameter:	Description
Mechanical Shock:	MIL-STD-883, Method 2002
Storage Temperature:	-55 to 125 ° C
range	
Humidity :	After 48 hours at 85 ° C $\pm$ 2 ° C 85% relative humidity non-condensing
Thermal Shock:	MIL-STD-883, Method 1011
Vibration:	MIL-STD-883, Method 2007
Gross and Fine Leak:	MIL-STD-883, Method 1014
RoHS Compliant:	Yes

PIN CONNECTIONS

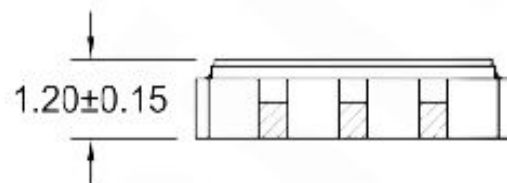
Line Parameter	Description
Pin 1	VCO
Pin 2	E/D* or NC
Pin 3	GND
Pin 4	OUTPUT
Pin 5	COMPLIMENTARY OUTPUT (LVPECL/LVDS only) or NC
Pin 6	VDD
Output Enabled	>70% of VDD on E/D pin, or E/D pin left open (connected to internal pull-up resistor)
Output Disabled	<30% of VDD on E/D pin, or E/D pin to GND
	Total frequency pull depends on resonator frequency used



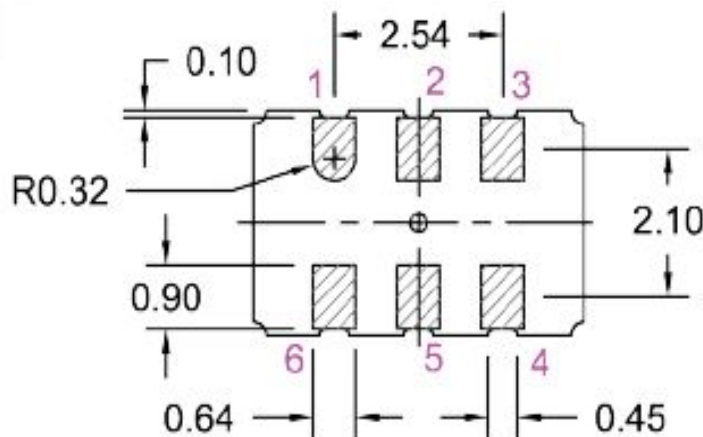
DIMENSION (mm)



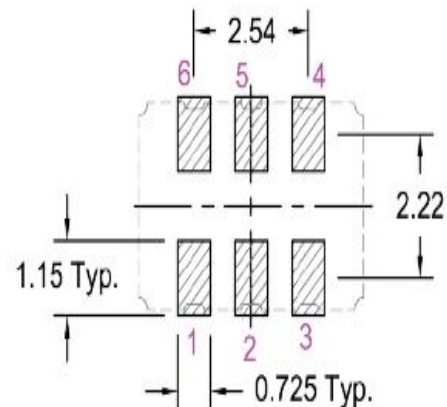
1
TOP VIEW



FRONT VIEW



BOTTOM VIEW



- NOTE :**
1. PIN CONNECTIONS ARE DETAILED IN THE SPECIFICATION.
 2. MARKING INFORMATION IS DETAILED IN THE SPECIFICATION.

RECOMMENDED PAD LAYOUT - Top View