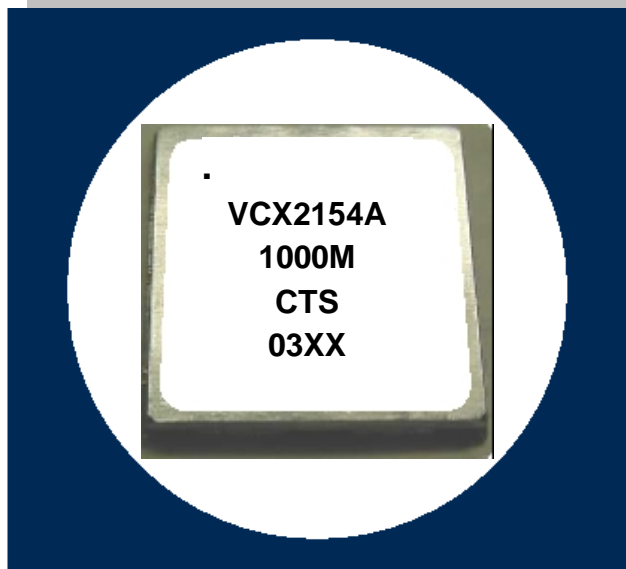


**Description and Applications:**

Surface mount 15.88 mm SQ (.625"SQ)  
VCXO operating at a **3.3V** supply with  
complementary CML outputs for use in  
datacom applications

**Features:**

- 1000.00 MHz VCXO
- Low Profile Surface Mount Package
- Excellent solder reflow performance
- PCB Substrate for excellent TCE match

**Electrical Specifications:**

<b>VCX2154A</b>	<b>Specification</b>
Center Frequency Fo	1000.00 MHz
Supply Voltage ( $\pm 5\%$ )	3.3V
Current Drain	100 mA max.
Aging (typical)	$\pm 1$ ppm/yr @25C; $\pm 5$ ppm max over 10 yr
Overall Frequency Stability including Temperature, Supply, 2:1 VSWR load, and Aging	$\pm 20$ ppm
Operating Temperature	-40° to +85°C
Tuning Voltage Range	0.15V to 3.15V
Frequency Adjust over tuning voltage range	$\pm 80$ ppm over operating temperature
Linearity	$\pm 10\%$ max.
RMS phase jitter	< 5 psec
RMS phase jitter (50 kHz to 80 MHz)	< 1 psec

Environmental Limits:

**VCXO**

Storage Temperature	-40 to +90 °C.
Humidity	95% Relative humidity max @ 70°C.
Vibration	10 to 60 Hz with double amplitude of 1.52mm max. (1/2 hour in each of 3 perpendicular planes).

Mechanical Dimensions (mm):

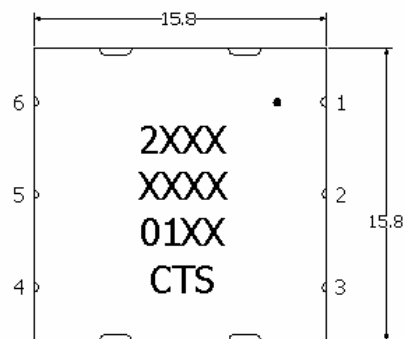
Pin Location:

- 1] RF output
- 2] /RF output
- 3] Vc
- 4] GND
- 5] E/D
- 6] Vcc, supply voltage

Enable: Vcc

Disable: GND

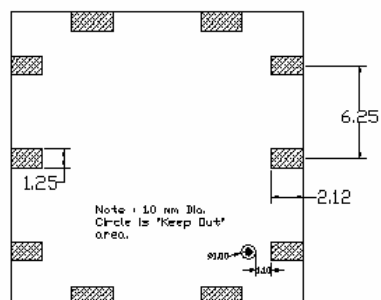
Top View



Side View



Bottom View



THIS DATA SHEET IS NOT AN OFFER FOR SALE AND SHALL NOT OBLIGATE CTS TO SELL THE PRODUCTS DESCRIBED HEREIN OR ANY OTHER PRODUCTS. CTS MAY, IN ITS SOLE DISCRETION, MODIFY OR DISCONTINUE THE SALE OF ITS PRODUCTS AT ANY TIME WITHOUT NOTICE. CTS MAKES NO WARRANTY, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCTS REFERENCED OR INFORMATION PROVIDED HEREIN.

CTS® is a registered trademark of CTS Corporation.

**CTS Wireless Components, Inc.** 171 Covington Dr. Bloomington,  
Illinois 60108  
Tel. (800) 757-6686 Fax: (630) 295-6606 [www.ctscorp.com](http://www.ctscorp.com)

Revision: 1.1