

## Features:

- 155.52 MHz SAW-based LVPECL output
- RoHS Compliant
- Low Profile Surface Mount Package
- Excellent solder reflow performance
- PCB Substrate for excellent TCE match

## Description and applications:

Surface mount 15.9 mm SQ frequency translator operating at a 3.3V supply with complementary LVPECL outputs for use in telecom & datacom

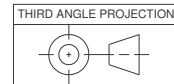
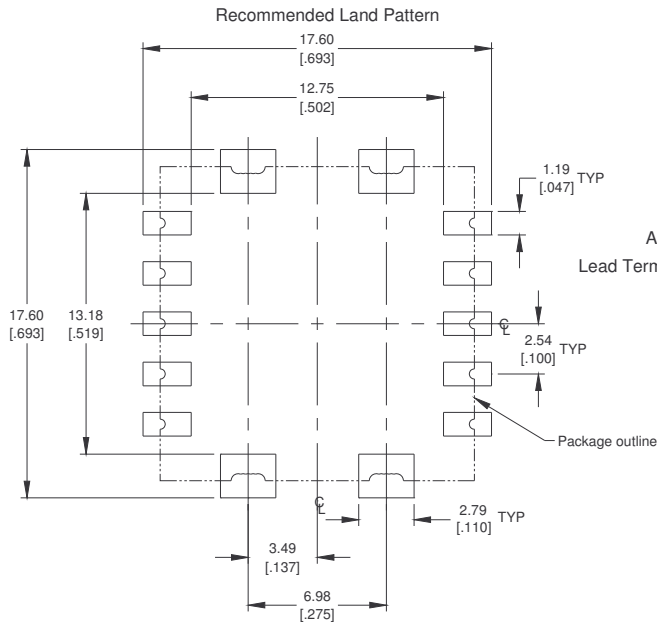
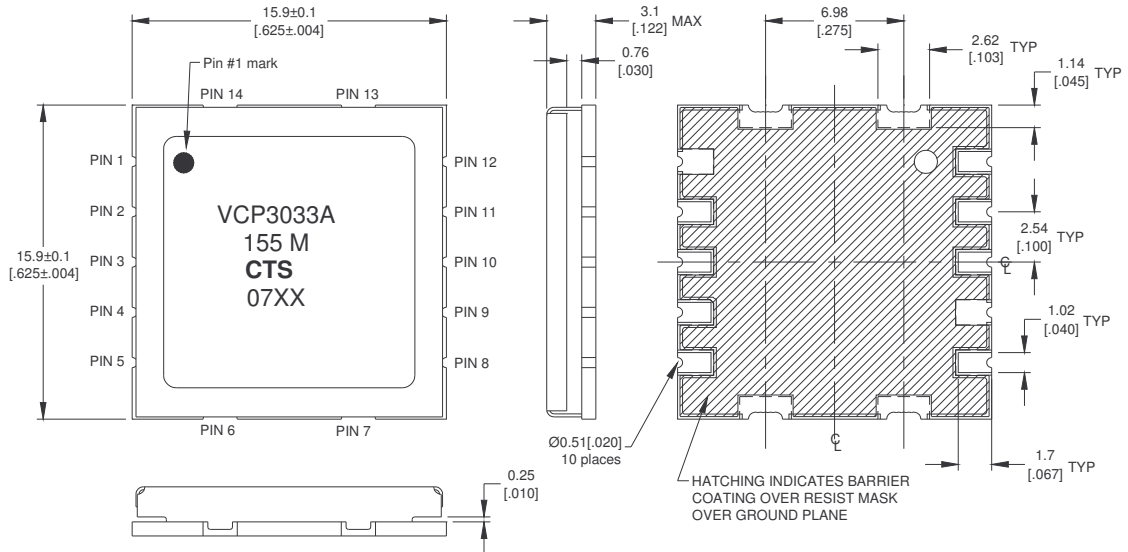


- See [WWW.CTSCORP.COM](http://WWW.CTSCORP.COM) for product patent status.

## Electrical Specifications:

VCP3033A	Specification		
Input frequency	155.52 MHz		
Output frequency	155.52 MHz		
Supply Voltage ( $\pm 5\%$ )	3.3V		
PECL input	400 mV min. peak-to-peak		
PECL output		Min.	Max.
	Logic "0"	1.49V	1.68V
	Logic "1"	2.28V	2.42V
Output Duty Cycle	48/52% max.		
Current Drain	95 Ma max.		
Operating Temperature	-40 to 85°C		
Input frequency tracking capability	+/- 32 ppm minimum		
Jitter attenuation	> 3 dB @ 100 Hz offset > 30 dB @ 1 kHz offset		
RMS phase jitter generation (12 kHz to 50 MHz)	<1 psec max.		

**Mechanical Dimensions (mm):**  
**15.9mm x 15.9mm x 3.1mm (max.):**



All dimensions are in MM [Inches].  
 All dimensions are nominal unless otherwise specified.  
 Lead Termination Finish: Gold Flash, <10 micro inch, over Ni plated Cu.

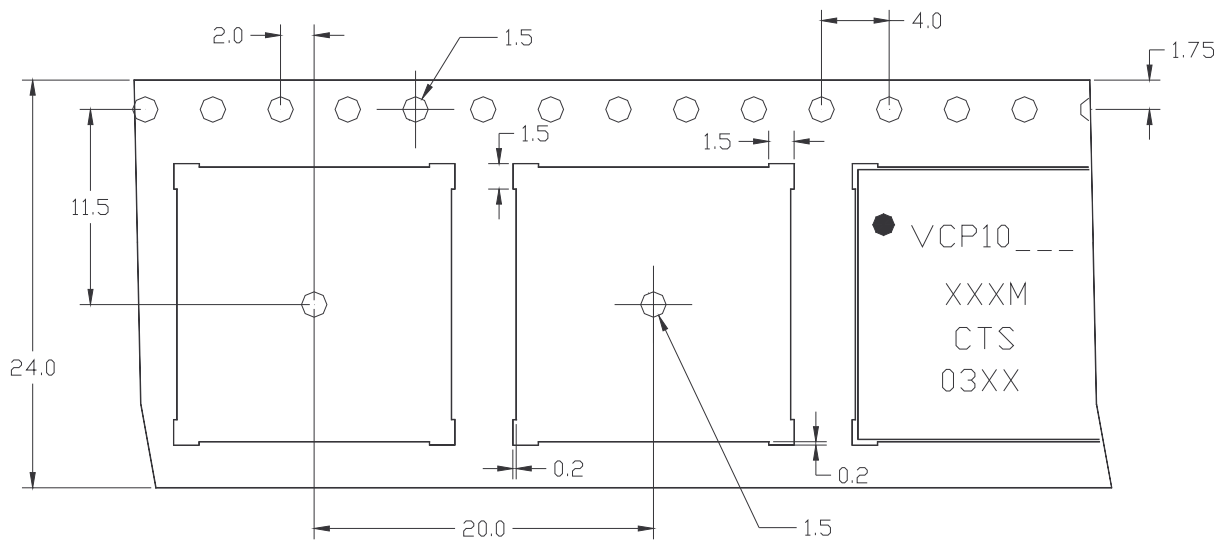
**PIN OUT**

Pin	Symbol	Function
1	LD	<b>Lock detect</b> Logic "1" indicates a locked condition (CMOS level $\geq V_{dd}-0.04$ ) Logic "0" indicates that no input signal is present or the input signal has moved out of the lock range (CMOS Level $\leq 0.4V$ )
2	IN	Input frequency
3	/IN	NC: not connected internally
4	GND	Ground
5	E/D	<b>Enable/ disable</b> Logic "0" = output disabled (CMOS Level $\leq 0.4V$ ) Logic "1" = output enabled (CMOS Level $\geq V_{dd}-0.4 V$ )
6	Gnd	Ground
7	Gnd	Ground
8	/OUT	Complementary output
9	OUT	Output
10	Vcc	Power supply voltage
11	N/C	No connection
12	Gnd	Ground
13	Gnd	Ground
14	Gnd	Ground

**Tape & Reel Information**

**Tape width 24 mm, pitch 20 mm, as per EIA 481-2, 1000 units per reel max**

All Dimensions are in MM



**Environmental Limits:**

<b>Storage Temperature</b>	<b>-40 to +90 °C.</b>
<b>Humidity</b>	<b>95% Relative humidity max @ 70°C.</b>
<b>Vibration</b>	<b>10 to 60 Hz with double amplitude of 1.52mm max. (1/2 hour in each of 3 perpendicular planes).</b>
<b>Mechanical Shock</b>	<b>1/2 sine pulse, 3000G, with pulse width 0.3mSec. (3 shock in each of 6 directions of 3 perpendicular planes).</b>

**Solder Reflow Conditions**

**Device is capable of withstanding reflow of 260 degrees C for 10 seconds maximum.**

**Moisture Sensitivity: MSL 1**

**RoHS: This device is fully compliant to RoHS Directive 2002/95/EC**