

Features:

- 622.08 MHz SAW-based LVPECL output
- RoHS Compliant
- Low Profile Surface Mount Package
- Excellent solder reflow performance
- PCB Substrate for excellent TCE match
- Non-Peaking Attenuation Response



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

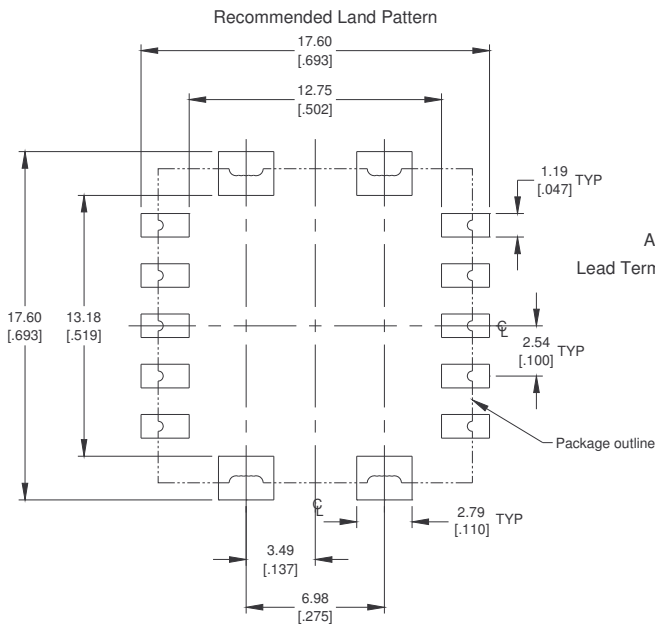
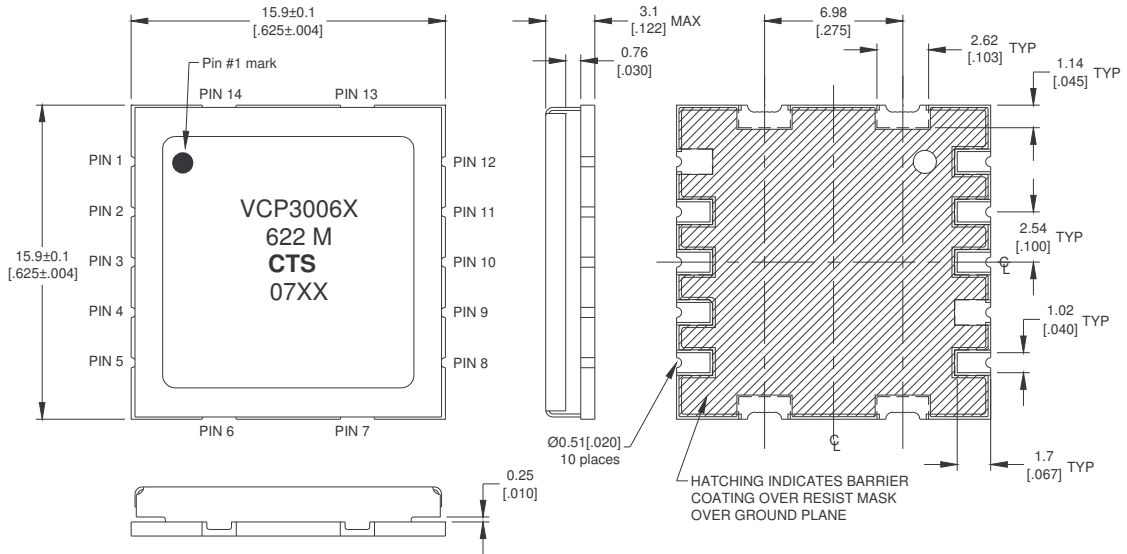
- See WWW.CTSCORP.COM for product patent status.

Electrical Specifications:

VCP3006X	Specification									
Input frequency	77.76 MHz									
Output frequency	622.08 MHz									
Supply Voltage (± 5%)	3.3V									
PECL input	400 mV min. Peak-to-peak									
PECL output	<table border="0"> <tr> <td></td> <td style="text-align: center;">Min.</td> <td style="text-align: center;">Max.</td> </tr> <tr> <td>Logic "0"</td> <td>1.49V</td> <td>1.68V</td> </tr> <tr> <td>Logic "1"</td> <td>2.28V</td> <td>2.42V</td> </tr> </table>		Min.	Max.	Logic "0"	1.49V	1.68V	Logic "1"	2.28V	2.42V
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Logic "0"	1.49V	1.68V								
Logic "1"	2.28V	2.42V								
Output Duty Cycle	45/55% max									
Current Drain	95 Ma max.									
Operating Temperature	-40 to 85 °C									
Input frequency tracking capability	+/- 32 ppm minimum									
Peaking	< 0.1 dB									
Jitter attenuation	<ul style="list-style-type: none"> > 4 dB @ 1 KHz offset > 12 dB @ 5 kHz offset 									
RMS phase jitter generation (50kHz to 80 MHz)	< 1 psec max.									

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

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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	Lock detect 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	Enable/ disable 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

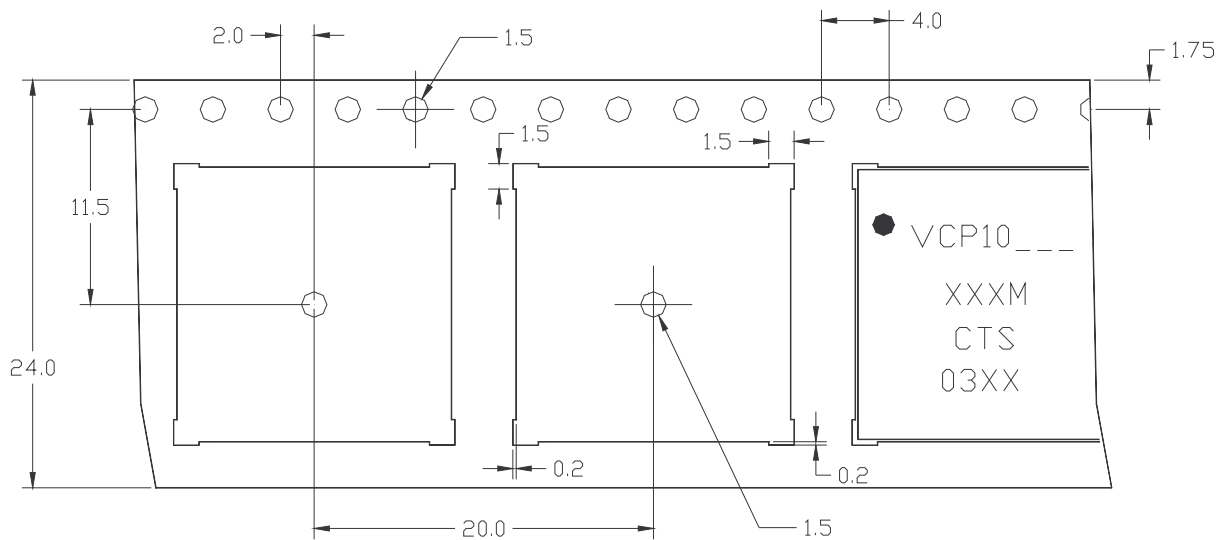
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Tape & Reel Information

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

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All Dimensions are in MM



Environmental Limits:

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 Shock	1/2 sine pulse, 3000G, with pulse width 0.3mSec. (3 shock in each of 6 directions of 3 perpendicular planes).

Solder Reflow Conditions

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

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Moisture Sensitivity: **MSL 1**

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