

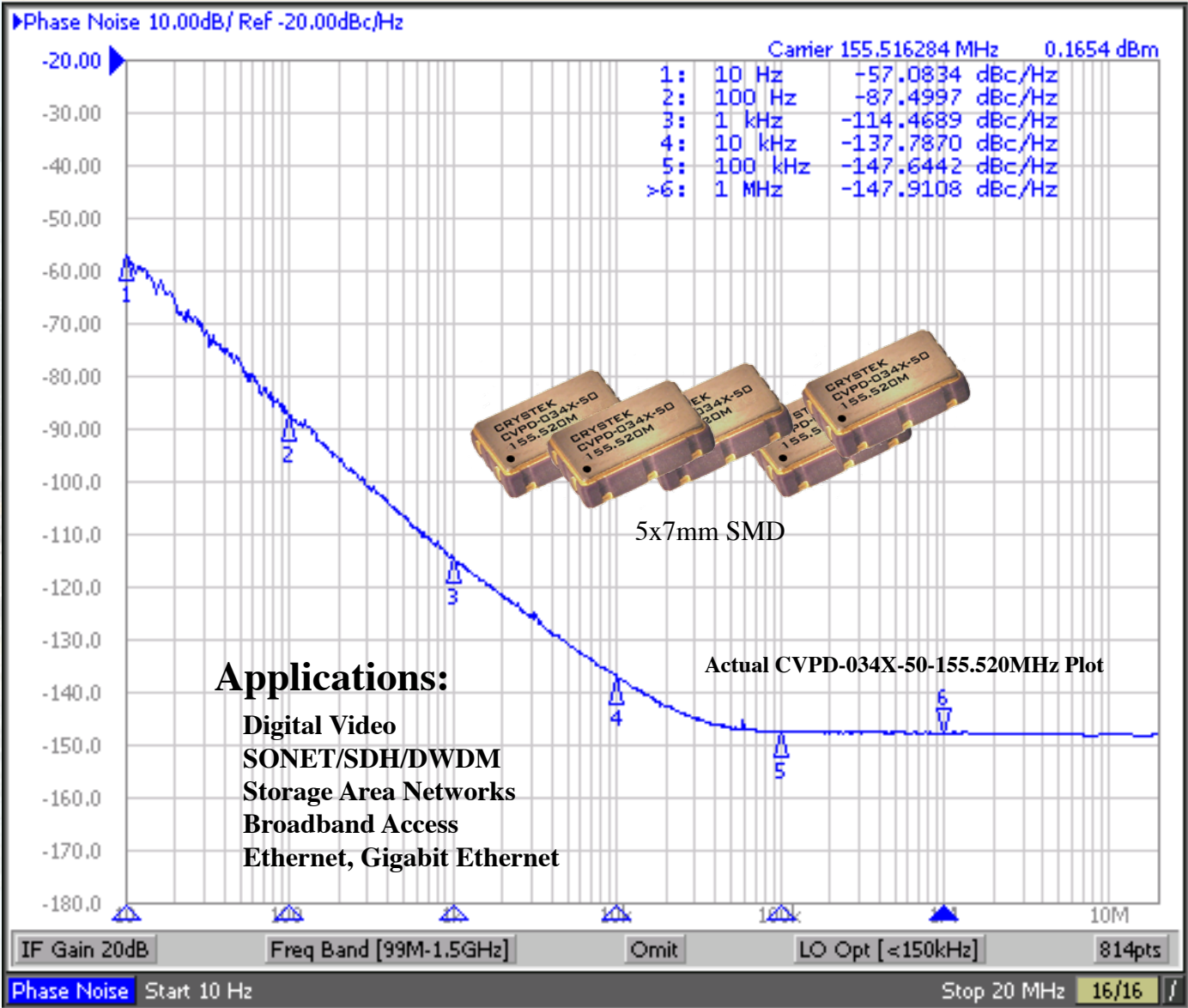


**CRYSTEK**  
CRYSTALS  
A DIVISION OF CRYSTEK CORPORATION

**CVPD-034 LVPECL**  
Voltage Controlled Crystal Oscillator  
5x7mm SMD  
3.3 Volts



**Agilent E5052A Signal Source Analyzer**



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Rev.: M  
Date: 04-13-08



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**Frequency Range:** 77.760MHz to 200.000MHz

**Frequency Pulling (APR) Min.:** ±50ppm (std), ±100ppm

**Temperature Range: (standard)** 0°C to +70°C  
**(Option M)** -20°C to +70°C  
**(Option X)** -40°C to +85°C

**Storage:** -55°C to 120°C  
**Input Voltage:** 3.3V ± 0.3V  
**Input Current:** 55mA Typ., 88mA Max

**Output:** Differential LVPECL  
**Symmetry:** 45/55% Max @ 50% Vdd  
**Rise/Fall Time:** 1nsec Max @ 20% to 80% Vdd  
**Linearity:** ±10% Max

**Logic:** Terminated to Vdd-2V into 50 ohms  
**Temp. 0°C to 85°C** "0"=1.490 Min., 1.680 Max  
"1"=2.275 Min., 2.420 Max  
**Temp. -40°C to 0°C** "0"=1.470 Min., 1.745 Max  
"1"=2.215 Min., 2.420 Max  
**Disable Time** 200nSec Max  
**Start-up Time** 1mSec Typ., 2mSec Max

**Phase Jitter:** 12KHz~80MHz 0.5psec Typ., 1psec RMS Max

**Phase Noise:** 10Hz -60dBc/Hz Typical  
100Hz -90dBc/Hz Typical  
1KHz -115dBc/Hz Typical  
10KHz -140dBc/Hz Typical  
100KHz -145dBc/Hz Typical

**Sub-harmonics:** None

**Aging:** <5ppm 1<sup>st</sup> year, <2ppm every year thereafter



# CRYSTEK

## CRYSTALS

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# CVPD-034 LVPECL

## Voltage Controlled Crystal Oscillator

### 5x7mm SMD

### 3.3 Volts



### PART NUMBER GUIDE

CVPD - 034 X - 50 - 155.520

#1 #2 #3 #4 #5

#1 Crystek PECL VCXO.

#2 Model 034

#3 Temp. Range (Blank=0/70°C)(M=-20/70°C)(X=-40/85°C)

#4 Stability: (see Table 1)

#5 Frequency in MHz: 3 or 6 decimal places

Example:

CVPD-034X-50-155.520

3.3V, -40/85°C, ±50ppm(APR), 155.520 MHz

### Stability Indicator

Blank (std)	±100ppm
50	±50ppm

**Table 1**

### Standard Frequencies

(±50ppm, 0/70°C)  
 77.760 MHz  
 155.520 MHz  
 156.250 MHz  
 161.132800 MHz  
 200.000 MHz

### Mechanical:

**Shock:** MIL-STD-883, Method 2002, Condition B

**Solderability:** MIL-STD-883, Method 2003

**Vibration:** MIL-STD-883, Method 2007, Condition A

**Solvent Resistance:** MIL-STD-202, Method 215

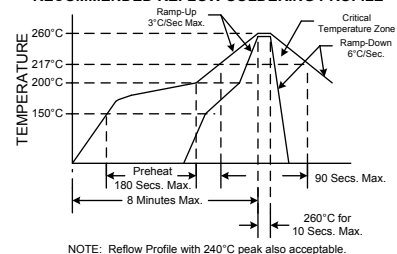
**Resistance to Soldering Heat:** MIL-STD-202, Method 210, Condition I or J

### Environmental:

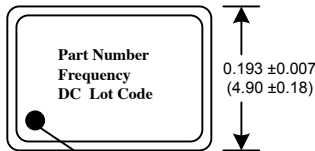
**Thermal Shock:** MIL-STD-883, Method 1011, Condition A

**Moisture Resistance:** MIL-STD-883, Method 1004

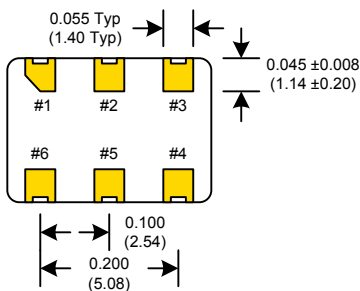
### RECOMMENDED REFLOW SOLDERING PROFILE



0.274 ±0.007  
(6.96 ±0.18)

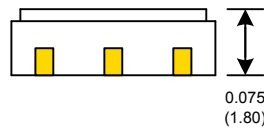


Denotes pad 1

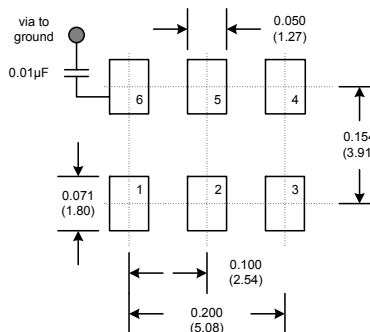


Dimensions inches (mm)

All dimensions are Max unless otherwise specified.



### SUGGESTED PAD LAYOUT



### Tri-State Function

Pin #1 State	Output State
Open or N/C	Active
"1" level 0.7*Vcc Min	Active
"0" level 0.3*Vcc Max	High Z

Pad	Connection
1	Volt. Control
2	Enable/Disable
3	GND
4	Out
5	Comp. Out
6	VCC