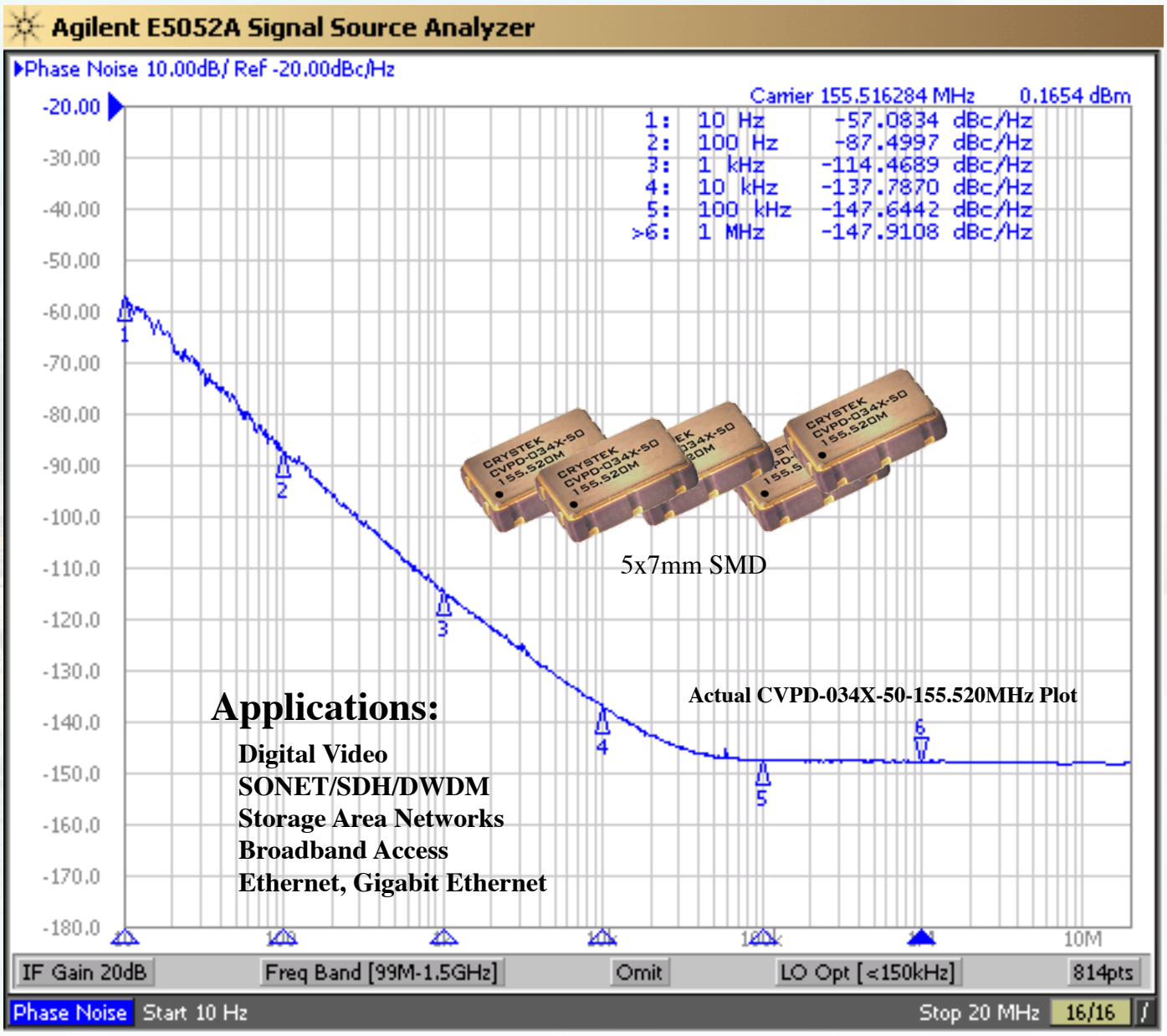
CRYSTEK CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

CVPD-034 LVPECL

Voltage Controlled Crystal Oscillator
5x7mm SMD
3.3 Volts

RoHS Compliant



5x7mm SMD

Actual CVPD-034X-50-155.520MHz Plot

Applications:

Digital Video
SONET/SDH/DWDM
Storage Area Networks
Broadband Access
Ethernet, Gigabit Ethernet

CRYSTEK CORPORATION
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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 1st year, <2ppm every year thereafter**

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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

Stability Indicator	
Blank(std)	±100ppm
50	±50ppm
Table 1	

Example:
CVPD-034X-50-155.520
3.3V, -40/85°C, ±50ppm(APR), 155.520 MHz

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

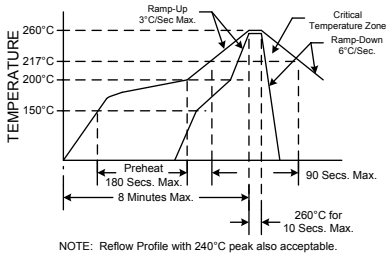
Mechanical:

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

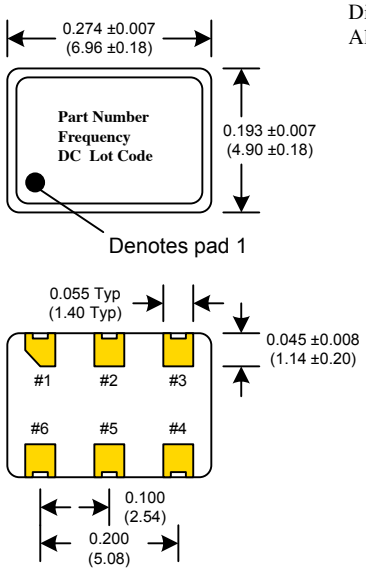
Environmental:

Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

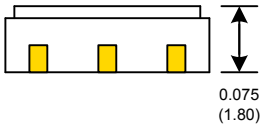
RECOMMENDED REFLOW SOLDERING PROFILE



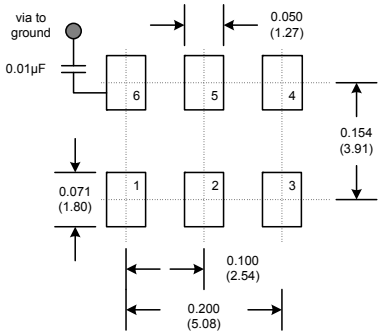
NOTE: Reflow Profile with 240°C peak also acceptable.



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

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