

Marketing Bulletin

DATE: March 24th, 2006
TO: All Sales Personnel
FROM: Mark Stoner
RE: Product Termination

To all concerned parties,

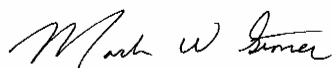
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective March 24th, 2006:

Series	Description	Recommended Replacement
EL13C9	3.3V 5 x 7mm SMD LVDS Oscillator	EL13C7 or EL13D8

In compliance with our End of Life (EOL) policy, this will serve as advanced notice of product termination. New orders will not be accepted after July 1st, 2006, with delivery to conclude by October 1st 2006.

If there are any questions pertaining to this bulletin, please feel free to contact me. Thank you again for your cooperation.

Best Regards,



Mark W. Stoner
Director of Marketing
Ecliptek Corporation

EL13C9 Series



- RoHS Compliant (Pb-Free)
- LVDS Output Oscillators
- 3.3V Supply Voltage
- AT-Cut Fundamental Mode Inverted Mesa Crystal
- Ceramic 6-pad SMD Package
- Stability to 25ppm
- Tri-State Enable High and Enable Low Options Available on Pad 1 or Pad 2
- Complementary Output
- Wide Range of Available Frequencies



OBSOLETE

ELECTRICAL SPECIFICATIONS

Nominal Frequency		19.440MHz to 200.000MHz
Operating Temperature Range		0°C to 70°C, or -40°C to +85°C
Storage Temperature Range		-55°C to 125°C
Supply Voltage (V_{CC})		3.3V _{DC} ±5%
Input Current		40mA Maximum
Frequency Tolerance / Stability	Inclusive of All Conditions: Calibration Tolerance at 25°C, Frequency Stability over the Operating Temperature Range, Supply Voltage Change, Output Load Change, 1st Year Aging at 25°C, Shock, and Vibration	±100ppm, ±50ppm, or ±25ppm Maximum
Differential Output Voltage (V_{OD})		247mV Minimum, 350mV Typical, 454mV Maximum
V_{OD} Magnitude Change (ΔV_{OD})		-50mV Minimum, +50mV Maximum
Offset Voltage (V_{OS})		1.125V Minimum, 1.250V Typical, 1.375V Maximum
Rise Time / Fall Time	20% to 80% of waveform	1 nSeconds Maximum
Duty Cycle	Measured at 1.25V _{DC}	50 ±10(%) 50 ±5(%)
Load Drive Capability	Between Output and Complementary Output	100 Ohms
Logic Control / Additional Output		No Connect and Complementary Output or Tri-State and Complementary Output
Enable High Tri-State Input Voltage	V _{IH} of 70% of V _{CC} Minimum No Connection V _{IL} of 30% of V _{CC} Maximum	Enables Output Enables Output Disables Output: High Impedance
Enable Low Tri-State Input Voltage	V _{IH} of 70% of V _{CC} Minimum No Connection V _{IL} of 30% of V _{CC} Maximum	Disables Output: High Impedance Enables Output Enables Output
Output Disable Current		20mA Maximum
Start Up Time		10 mSeconds Maximum
RMS Phase Jitter	< 44.736MHz; F _J = 12kHz to 20MHz ≥ 44.736MHz, < 77.760MHz; F _J = 12kHz to 20MHz ≥ 77.760MHz; F _J = 12kHz to 20MHz	5 pSec Maximum 2 pSec Maximum 1 pSec Maximum
Phase Noise (at 155.520MHz)	at 10Hz Offset at 100Hz Offset at 1kHz Offset at 10kHz Offset at 100kHz Offset	-75dBc/Hz Typical -95dBc/Hz Typical -125dBc/Hz Typical -140dBc/Hz Typical -145dBc/Hz Typical

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EL13C9	PACKAGE CERAMIC	VOLTAGE 3.3V	CLASS OS1U	REV. DATE 06/04
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OBSOLETE

PART NUMBERING GUIDE

EL13C9 E 2 F - 155.520M TR

FREQUENCY TOLERANCE & STABILITY/ OPERATING TEMPERATURE RANGE

C=±100ppm Maximum over 0°C to +70°C
 D=±50ppm Maximum over 0°C to +70°C
 E=±25ppm Maximum over 0°C to +70°C
 G=±100ppm Maximum over -40°C to +85°C
 H=±50ppm Maximum over -40°C to +85°C
 J=±25ppm Maximum over -40°C to +85°C

DUTY CYCLE

1=50% ±10%, 2=50% ±5%

AVAILABLE OPTIONS

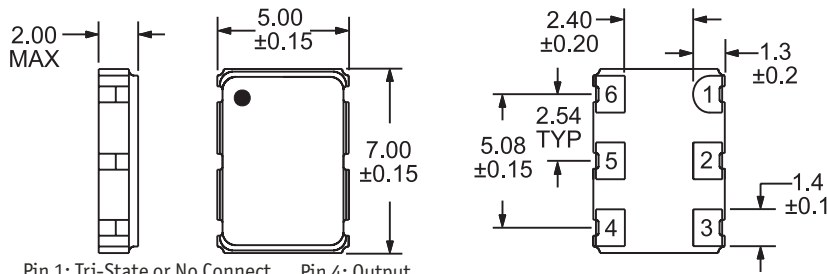
Blank=Tubes
 TR=Tape and Reel (Standard)

FREQUENCY

LOGIC CONTROL/ADDITIONAL OUTPUT

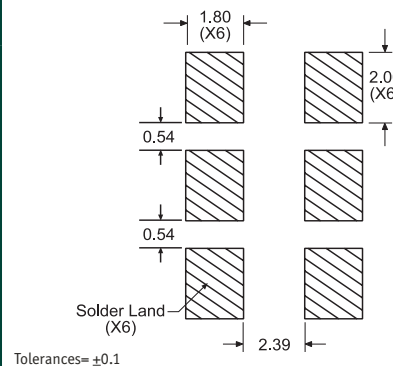
C=No Connect and Complementary Output
 F=Tri-State (Enable High) on Pad 1 and Complementary Output
 H=Tri-State (Enable High) on Pad 2 and Complementary Output
 J=Tri-State (Enable Low) on Pad 1 and Complementary Output
 K=Tri-State (Enable Low) on Pad 2 and Complementary Output

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS

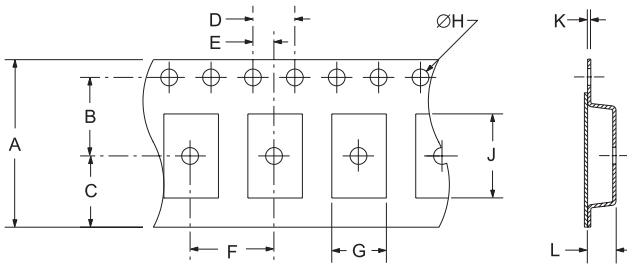


Pin 1: Tri-State or No Connect Pin 4: Output
 Pin 2: Tri-State or No Connect Pin 5: Complementary Output
 Pin 3: Case Ground Pin 6: Supply Voltage

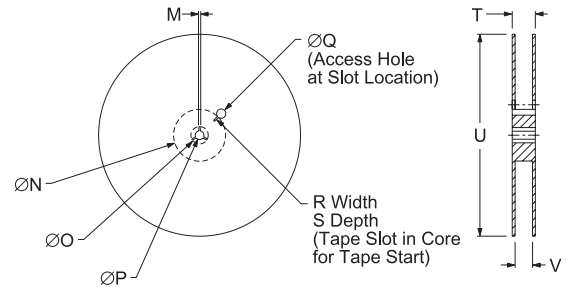
SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
	16±.3-1	7.5±.1	6.75±.1	4 ±.1	2±.1
F	G	H	J	K	L
8±.1	B0*	1.5 +.1-0	A0*	.3±.05	K0*



REEL	M	N	O	P	Q
	1.5 MIN	50 MIN	20.2 MIN	13±.2	40 MIN
R	S	T	U	V	QTY/REEL
2.5 MIN	10 MIN	22.4 MAX	360 MAX	16.4±2-0	1,000

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215

MARKING SPECIFICATIONS

Line 1: ECLIPTEK
 Line 2: XX.XXX M
 Frequency in MHz (5 Digits Maximum + Decimal)
 Line 3: XX Y ZZ
 Week of Year
 Last Digit of Year
 Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EL13C9	CERAMIC	3.3V	OS1U	06/04