

## Marketing Bulletin

**DATE:** July 19<sup>th</sup>, 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 July 20<sup>th</sup>, 2006:

| <b>Series</b> | <b>Description</b> | <b>Recommended Replacement</b> |
|---------------|--------------------|--------------------------------|
| EC7           | UM-1 Crystal       | E1M or E5M                     |

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 September 31<sup>st</sup>, 2006, with delivery to conclude by December 31<sup>st</sup> 2006.

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

Best Regards,

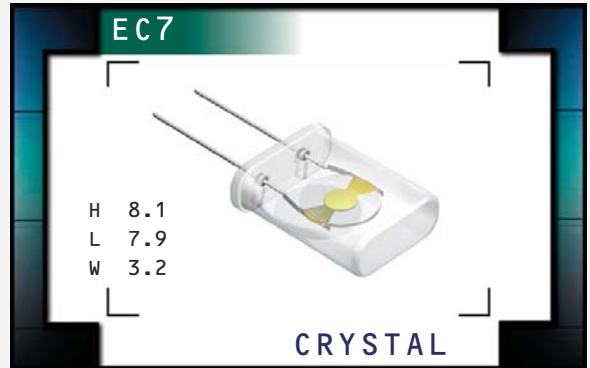


Mark W. Stoner  
Vice President of Marketing  
Ecliptek Corporation

# EC7 Series



- RoHS Compliant (Pb-Free)
- Inverted Mesa Crystal
- Fundamental mode frequencies to 212.5MHz
- UM-1 package
- AT cut
- Tight tolerance/stability
- Wide operating temperature range



## NOTES

OBSOLETE

### ELECTRICAL SPECIFICATIONS

|  |  |
|--|--|
| Frequency Range                        | 44.737MHz to 212.500MHz  |
| Frequency Tolerance / Stability        | ±50ppm / ±100ppm, ±30ppm/±50ppm  |
| Over Operating Temperature Range       | ±15ppm / ±30ppm, or ±10ppm / ±30ppm  |
| Operating Temperature Range            | 0°C to 70°C, -20°C to 70°C, or -40°C to 85°C   |
| Aging (at 25°C)                        | ±3ppm / year Maximum   |
| Storage Temperature Range              | -40°C to 85°C  |
| Shunt Capacitance                      | 5pF Maximum  |
| Drive Level                            | 100µWatts Maximum  |
| Load Capacitance (C <sub>L</sub> )     | 18pF (Standard), Custom C <sub>L</sub> ≥ 10pF, or Series Resonant                        |
| Motional Capacitance (C <sub>1</sub> ) | 3fF Min, 10fF Max (F <sub>0</sub> ≤ 100MHz), 3fF Min, 13fF Max (F <sub>0</sub> > 100MHz) |
| Insulation Resistance                  | 500 Megaohms Minimum at 100V <sub>DC</sub>   |

### EQUIVALENT SERIES RESISTANCE (ESR), MODE OF OPERATION (MODE), AND CUT

| Frequency Range         | ESR (Ω) | Mode / Cut       | Frequency Range          | ESR (Ω) | Mode / Cut       |
|-------------------------|---------|------------------|--------------------------|---------|------------------|
| 44.737MHz to 50.000MHz  | 25 Max  | Fundamental / AT | 100.001MHz to 160.000MHz | 35 Max  | Fundamental / AT |
| 50.001MHz to 100.000MHz | 30 Max  | Fundamental / AT | 160.001MHz to 212.500MHz | 40 Max  | Fundamental / AT |

MANUFACTURER  
ECLIPTEK CORP.

CATEGORY  
CRYSTAL

SERIES  
EC7

PACKAGE  
UM-1

CLASS  
CR36

REV. DATE  
03/06

## PART NUMBERING GUIDE

### EC7 A - 20 - 35.000M

#### FREQUENCY TOLERANCE / STABILITY

Blank=±50ppm at 25°C, ±100ppm from 0°C to 70°C  
 A=±50ppm at 25°C, ±100ppm from -20°C to 70°C  
 B=±50ppm at 25°C, ±100ppm from -40°C to 85°C  
 C=±30ppm at 25°C, ±50ppm from 0°C to 70°C  
 D=±30ppm at 25°C, ±50ppm from -20°C to 70°C  
 E=±30ppm at 25°C, ±50ppm from -40°C to 85°C  
 F=±15ppm at 25°C, ±30ppm from 0°C to 70°C  
 G=±15ppm at 25°C, ±30ppm from -20°C to 70°C  
 H=±15ppm at 25°C, ±30ppm from -40°C to 85°C  
 J=±10ppm at 25°C, ±30ppm from 0°C to 70°C  
 K=±10ppm at 25°C, ±30ppm from -20°C to 70°C  
 L=±10ppm at 25°C, ±30ppm from -40°C to 85°C

#### FREQUENCY

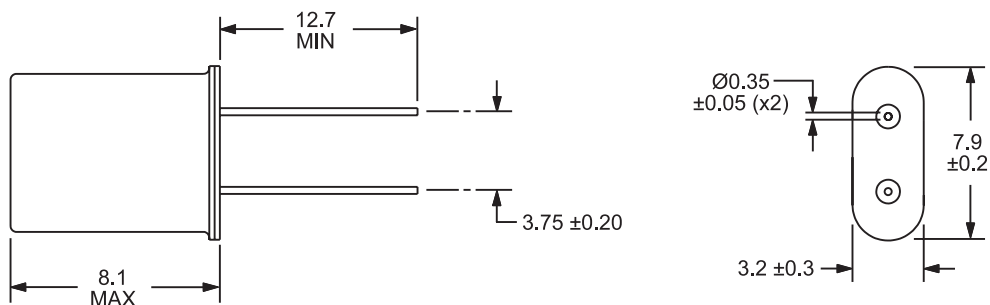
#### LOAD CAPACITANCE

Blank=18pF (Standard)  
 S=Series, XX=XXpF (Custom)

## NOTES

OBSOLETE

#### MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



#### ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

| PARAMETER          | SPECIFICATION   |
|--------------------|---|
| Seal Integrity     | Bubble test in Perfluorocarbon at +125°C ±5°C for 60 seconds minimum.   |
| Solderability      | Sn63 Solder dip at +230°C ±5°C for 5 seconds/95% coverage.  |
| Marking Permanency | 10 Strokes with brush after 1 minute soak in solvent, 3 times.  |
| Shock              | Random drop on hard wooden plate 3 times from a height of 50cm.   |
| Vibration          | Frequency with an amplitude of 1.5mm sweeping between 10Hz to 55Hz within 1 minute (approximately) for 2 hours minimum on each axis (X,Y and Z) for a total of 6 hours. |

#### MARKING SPECIFICATIONS

Line 1: ECLIPTEK  
 Line 2: XX.XXXM  
 Frequency in MHz (5 Digits Maximum + Decimal)  
 Line 3: XX  
 Ecliptek Manufacturing Identifier

MANUFACTURER  
ECLIPTEK CORP.

CATEGORY  
CRYSTAL

SERIES  
EC7

PACKAGE  
UM-1

CLASS  
CR36

REV. DATE  
03/06