FEATURES

SERIES CX21, CX22, AND CX23

COST EFFECTIVE MPU CLOCK

TOLERANCE AND STABILITY TO ± 5 PPM

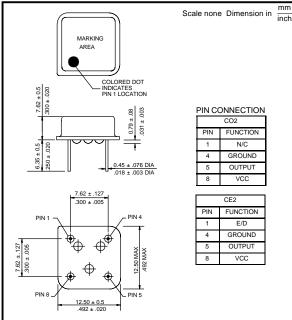
CUSTOM SPECIFICATIONS

SPECIFICATIONS

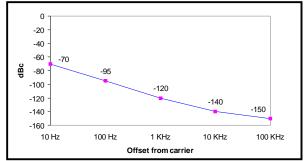
| FREQUENCY RANGE | 1.00 MHz TO 100.00 MHz | | |
|---|--|--|--|
| FREQUENCY STABILITY OVER TEMPERATURE RANGE (REF. TO25°C) | ± 5 PPM TO ± 50 PPM MAX AT VCC = ± 5.0 VDC (SEE TABLE 1) | | |
| OPERATING TEMPERATURE RANGE | 0°C TO +50°C (NARROW) 0°C TO +70°C (STANDARD) -40°C TO +85°C (EXTENDED) AT VCC = +5.0VDC AND STANDARD LOAD (SEE TABLE 1) | | |
| STORAGE TEMPERATURE RANGE | -40°C TO +85°C | | |
| AGING CHARACTERISTICS | ±4 PPM MAX FOR THE FIRST YEAR AND ±20 PPM MAX FOR 10 YEARS | | |
| OUTPUT WAVEFORM OPTIONS | TTL, HCMOS, OR ACMOS | | |
| SYMMETRY | NORMAL: 40/60% TIGHT: 45/55% (OPTION) | | |
| FREQUENCY STABILITY OVER LOAD VARIATION | ±3 PPM MAX FOR 10% VARIATION AT VCC = +5.0 VDC AT 25°C | | |
| SUPPLY VOLTAGE | +5.0 VDC ±5% (3.3 VDC AVAILABLE) | | |
| ENABLE/DISABLE FUNCTION | CONTROL PIN 1: HIGH OR OPEN (+2.0 VDC MIN)OUTPUT PIN 8: ENABLED CONTROL PIN 1: LOW OR GROUND (+0.8 VDC MIN)OUTPUT PIN 8: DISABLED (HIGH | | |
| FREQUENCY STABILITY OVER SUPPLY VOLTAGE VARIATION | ±5 PPM MAX FOR 5% VARIATION AT VCC = +5.0 VDC AND STANDARD LOAD AT 25°C | | |
| SUPPLY CURRENT | 50 mA MAX AT VCC = +5.0 VDC AND STANDARD LOAD AT 25°C | | |



OUTLINE DRAWING



PHASE NOISE CHARACTERISTICS



PART NUMBERING SYSTEM

| CODE | TEMPERATURE RANGE | TEMPERATURE STABILITY | | |
|------|----------------------|--------------------------|--|--|
| А | 0°C TO +50°C | ± 5 PPM | | |
| В | 0°C TO +50°C | ± 10 PPM | | |
| С | 0°C TO +50°C | ± 15 PPM | | |
| D | 0°C TO +50°C | ± 20 PPM | | |
| Е | 0°C TO +50°C | ± 25 PPM | | |
| F | 0°C TO +70°C | ± 10 PPM | | |
| G | 0°C TO +70°C | ± 15 PPM | | |
| Н | 0°C TO +70°C | ± 20 PPM | | |
| Ι | 0°C TO +70°C | ± 25 PPM | | |
| J | 0°C TO +70°C | ± 35 PPM | | |
| К | 0°C TO +70°C | ± 50 PPM | | |
| L | -40°C TO +85°C | ± 20 PPM | | |
| М | -40°C TO +85°C | ± 25 PPM | | |
| 0 | -40°C TO +85°C | ± 30 PPM | | |
| Р | -40°C TO +85°C | ± 35 PPM | | |
| | | | | |

TEMPERATURE RANGE DESIGNATIONS

| J K L | 0°C TO +70°C 0°C TO +70°C | ± 35 PPM ± 50 PPM |
|-------------|------------------------------|----------------------|
| K | 0°C TO +70°C | ± 50 PPM |
| L | | |
| — | -40°C TO +85°C | ± 20 PPM |
| М | -40°C TO +85°C | ± 25 PPM |
| 0 | -40°C TO +85°C | ± 30 PPM |
| Р | -40°C TO +85°C | ± 35 PPM |
| Q | -40°C TO +85°C | ± 50 PPM |

MECHANICAL CHARACTERISTICS

| MECHANICAL SHOCK | IEC-68-2-27 TEST EA, 30g FOR 18 ms HALFSINE |
|------------------|---|
| VIBRATION | IEC 68-2-6 (TEST FC) 0.35 mm, 5g, 10-2 kHz, 6 CYCLES AXIS |
| THERMAL SHOCK | IEC 68-2-14 (TEST NA), 30 min IN EACH TEMPERATURE EXTREME |
| SEAL | IEC 68-2-17 (TEST QC) |
| SOLDERING HEAT | IEC 68-2-20A |
| MECHANICAL | 14 PIN DIP, LEADED, PER OUTLINE DRAWING |

| FART NOWIDERING STSTEW | | | | | | | | |
|------------------------|-------------|-----------------------|-------------|---|-----------|---|---|--|
| SERIES | - | OUTPUT | CODE | | FREQUENCY | | SYMMETRY | |
| CO2 CE2 | 1 2 3 | TTL HCMOS ACMOS | A THROUGH M | - | IN MHz | - | CO22L-20.000-T T (45/55%) HCMOS OUTPUT ±20 PPM TIGHT SYMMETRY | HCMOS OUTPUT ±20 PPM OVER -40° C TO +85° C |
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Raltron Electronics Corporation 10651 NW 19th St. Miami, Florida 33172 U.S.A. Tel: 305-593-6033 Fax: 305-594-3973 e-mail: sales@raltron.com Internet: http://www.raltron.com