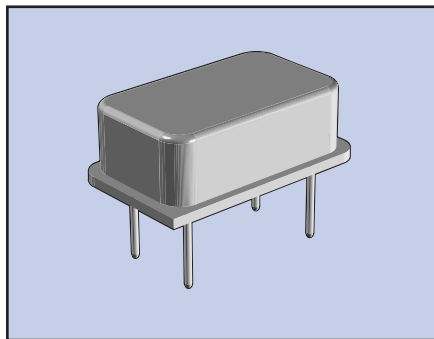


ECS-P143X/P145X PROGRAMMABLE CLOCK OSCILLATOR



The ECS-P143X (3.3V) and ECS-P145X (5V) 14 pin dip DIP is a twice programmable crystal controlled oscillator. The standard 14 pin DIP footprint is ideal for existing PC boards.

FEATURES

- Programmable (1 time)
- 3.3V & 5V options
- PLL technology
- 14 pin DIP footprint
- Extended temp range
- PbFree/RoHS Compliant

PART NUMBERING GUIDE "EXAMPLE"

| PART NUMBER | SERIES | FREQUENCY (MHz) | STABILITY | EXTENDED TEMP (OPTION) | | | | |
|-------------|--------|-----------------|-----------|------------------------|---|---|---|---|
| ECS | - | P143X | - | 16.312 | - | A | - | N |

Sample Part Number: ECS-P143X-16.312-AN

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

| PARAMETERS | CONDITIONS | ECS-P143X (3.3V) | | | ECS-P145X (5V) | | | UNITS |
|-----------------------|---------------------|------------------|------|---------|----------------|------|---------|-------|
| | | MIN | TYP | MAX | MIN | TYP | MAX | |
| FREQUENCY RANGE | | 1.000 | | 125.000 | 1.000 | | 150.000 | MHz |
| FREQUENCY STABILITY* | Option A | | | ±100 | | | ±100 | PPM |
| | Option B | | | ±50 | | | ±50 | PPM |
| OPERATING TEMPERATURE | Standard | 0 | | +70 | 0 | | +70 | °C |
| | Extended (Option N) | -40 | | +85 | -40 | | +85 | °C |
| STORAGE TEMPERATURE | | -55 | | +125 | -55 | | +125 | °C |
| INPUT VOLTAGE (Vcc) | | +2.97 | +3.3 | +3.63 | +4.5 | +5.0 | +5.5 | VDC |
| INPUT CURRENT | | | | 28 | | | 45 | mA |
| OUTPUT SYMMETRY | at 1/2 Vcc LEVEL | 40/60 | | 60/40 | 40/60 | | 60/40 | % |
| RISE AND FALL TIMES | 20% Vcc to 80% Vcc | | | 4 | | | 4 | ns |
| JITTER | 1.0 ~ 33.0 MHz | | ±100 | ±250 | ±100 | | ±250 | pS |
| | > 33.1 MHz | | ±50 | ±100 | ±50 | | ±100 | pS |
| "0" LEVEL | | | | 0.4 | | | 0.4 | VDC |
| "1" LEVEL | | 2.7 | | | Vcc - 0.5 | | | VDC |
| LOAD (HCMOS) | 1.0 ~ 50.0 MHz | | | 30 | | | 50 | pF |
| | > 50.1 MHz | | | 15 | | | 15 | pF |
| ENABLE/DISABLE TIME | | | | 150 | | | 100 | ns |
| START-UP TIME | | | | 10 | | | 10 | ms |

* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change aging, shock and vibration.

PACKAGE DIMENSIONS (mm)

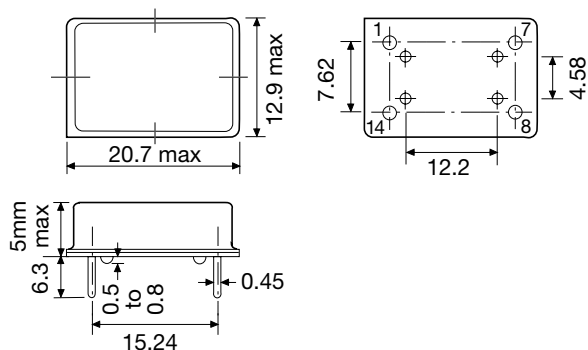


Figure 1) Top, Bottom and Side views

| ECS-P143X (3.3V) TRI-STATE CONTROL VOLTAGE | |
|--|---------------------|
| PIN #1 = OPEN | #3 = OUTPUT |
| PIN #1 = +0.7V MIN | #3 = OUTPUT |
| PIN #1 = +0.2V MAX | #3 = HIGH IMPEDANCE |

| ECS-P145X (5V) TRI-STATE CONTROL VOLTAGE | |
|--|---------------------|
| PIN #1 = OPEN | #3 = OUTPUT |
| PIN #1 = +2.0V MIN | #3 = OUTPUT |
| PIN #1 = +0.8V MAX | #3 = HIGH IMPEDANCE |

| PIN CONNECTIONS | |
|-----------------|-----------|
| #1 | TRI-STATE |
| #7 | GND |
| #8 | OUTPUT |
| #14 | VCC |