

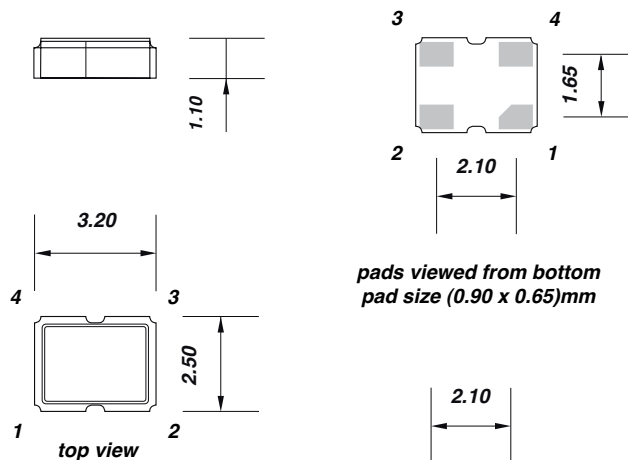
PROGRAMMABLE FAST DELIVERY SMD OSCILLATOR UP TO 200MHZ

A high quality, miniature ceramic smd, crystal clock oscillator manufactured over the wide frequency range of 1MHz to 200MHz. Low supply current, tight symmetry, supply voltage from 1.8Vd.c. to 3.3Vd.c.

Output frequency is pre-programmed from standard units providing custom frequencies with minimum delivery times.

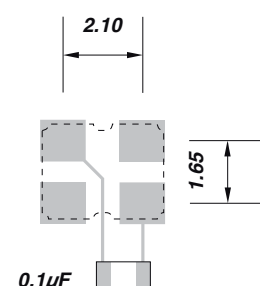
Suitable for new designs in miniature equipment, supplied on tape and reel, 1000, 2000, 3000 or 5000 pieces per reel.

Dimensions(mm)



- pad connections**
- #1 tri-state
 - #2 ground
 - #3 output
 - #4 V_{dd}

pads viewed from bottom
pad size (0.90 x 0.65)mm



suggested land pattern
pad size(1.2 x 1.1)mm

Frequency stability -vs- temperature:

| TEMP. RANGE | COMBINED TOLERANCE | | | |
|--------------|--------------------|--------|--------|--------|
| | ±15ppm | ±20ppm | ±25ppm | ±50ppm |
| (-20 +70)°C | ±15ppm | ±20ppm | ±25ppm | ±50ppm |
| (-40 +85)°C | - | ±20ppm | ±25ppm | ±50ppm |
| (-40 +105)°C | - | - | ±25ppm | ±50ppm |

Tolerance inclusive of calibration tolerance at +25°C, temperature tolerance, load variation and supply voltage variation, first year ageing, vibration and shock

Electrical specification:

| | 3.3Vd.c. | | 2.5Vd.c. | | 1.8Vd.c. | | |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|
| | min. | max. | min. | max. | min. | max. | |
| supply voltage variation | ±5% | | ±5% | | ±5% | | Vd.c. |
| frequency range | 1 ~ 200 | | 1 ~ 200 | | 1 ~ 125 | | MHz |
| supply current @15pF load | 35 | | 30 | | 20 | | mA |
| output level; o/p high | 90% V_{DD} | - | 90% V_{DD} | - | 90% V_{DD} | - | V |
| output level; o/p low | - | 10% V_{DD} | - | 10% V_{DD} | - | 10% V_{DD} | V |
| transition time; rise and fall time | - | 2 | - | 2 | - | 3 | nano sec. |
| duty cycle | 45 | 55 | 45 | 55 | 45 | 55 | % |
| start up time | - | 8 | - | 8 | - | 8 | milli sec. |
| tri-state; active o/p | 0.7 V_{DD} | - | 0.7 V_{DD} | - | 0.7 V_{DD} | - | V |
| tri-state; high impedance o/p | - | 0.3 V_{DD} | - | 0.3 V_{DD} | - | 0.3 V_{DD} | V |
| standby current; PD mode | - | 400 | - | 400 | - | 400 | µA |
| standby current; OE mode | - | 20 | - | 20 | - | 20 | mA |
| output loading | 15pF | | 15pF | | 15 | | pF |
| rms phase jitter - (12kHz ~ 20MHz) | - | 2 | - | 2 | - | 2 | pico sec. |
| ageing @25°C first year | - | ±3 | - | ±3 | - | ±3 | ppm |
| storage temperature range | (-50 +125)°C | | | | | | °C |



Ordering information

| | |
|----------------------------|---|
| EXAMPLE | type PXU clock oscillator, 40.00MHz, $\pm 25\text{ppm}(-20 +70)^{\circ}\text{C}$, +3.3Vd.c., output CMOS |
| TFC PART NUMBER | PXU 40.0M E D C |
| PXU | type: PXU = clock oscillator type PXU, smd |
| 40.0M | frequency: 40.0M = frequency in MHz, frequency range (1 ~ 200)MHz |
| E | supply voltage: E = +3.3Vd.c., |
| D | frequency stability: D = $\pm 25\text{ppm}$ |
| C | temperature range: C = $(-20 +70)^{\circ}\text{C}$ |
| OPTIONS | |
| supply voltage | K = 1.8Vd.c., J = 2.5Vd.c., E: +3.3Vd.c. |
| frequency stability | P: $\pm 15\text{ppm}$, C: $\pm 20\text{ppm}$, : D = $\pm 25\text{ppm}$, G = $\pm 50\text{ppm}$ |
| temperature range | C: $(-20 +70)^{\circ}\text{C}$, L: $(-40 +85)^{\circ}\text{C}$, J: $(-40 +105)^{\circ}\text{C}$ |