

3.3V, Low Profile SMD VCXO



Model: VCSAXT Series

RoHS Compliant / Pb Free

Rev. 10/19/2010

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FEATURES

- 3.3V Operation
- HCMOS Output
- Enable/Disable
- Tape and Reel (2,000 pcs. STD)

OPTIONS

- Many Stability/Pullability Options
- -40°C ~ +85°C Option ('R' Version)

• PART NUMBER SELECTION [Learn More](#) - Internet Required

| Part Number | Model Number | Frequency Stability ¹ | Frequency Pullability(Min) | Operating Temperature | Frequency |
|---------------------|------------------------|----------------------------------|----------------------------|-----------------------|--------------|
| 421-Frequency-xxxxx | VCS12AXT | ±25PPM | ±50PPM | -10 ~ +70(°C) | 1.000~80.000 |
| 437-Frequency-xxxxx | VCS12AXTR ³ | ±25PPM | ±50PPM | -40 ~ +85(°C) | 1.000~80.000 |
| 422-Frequency-xxxxx | VCS15AXT | ±50PPM | ±50PPM | -10 ~ +70(°C) | 1.000~80.000 |
| 439-Frequency-xxxxx | VCS15AXTR | ±50PPM | ±50PPM | -40 ~ +85(°C) | 1.000~80.000 |
| 423-Frequency-xxxxx | VCS22AXT | ±25PPM | ±100PPM | -10 ~ +70(°C) | 1.000~80.000 |
| 443-Frequency-xxxxx | VCS22AXTR ³ | ±25PPM | ±100PPM | -40 ~ +85(°C) | 1.000~80.000 |
| 424-Frequency-xxxxx | VCS25AXT | ±50PPM | ±100PPM | -10 ~ +70(°C) | 1.000~80.000 |
| 445-Frequency-xxxxx | VCS25AXTR | ±50PPM | ±100PPM | -40 ~ +85(°C) | 1.000~80.000 |
| 425-Frequency-xxxxx | VCS20AXT | ±100PPM | ±100PPM | -10 ~ +70(°C) | 1.000~80.000 |
| 441-Frequency-xxxxx | VCS20AXTR | ±100PPM | ±100PPM | -40 ~ +85(°C) | 1.000~80.000 |

• ELECTRICAL CHARACTERISTICS

| PARAMETERS | MAX (unless otherwise noted) |
|--|---------------------------------|
| Frequency Range (Fo) | 1.000 ~ 80.000 ⁴ MHz |
| Storage Temperature Range (T _{STG}) | -40°C ~ +85°C |
| Supply Voltage (V _{DD}) | 3.3V ± 10% |
| Control Voltage (V _c) | 1.65V ± 1.5V |
| Input Current (I _{DD}) | |
| 1.000 ~ 30.000 MHz | 15mA |
| 30.000+ ~ 45.000 MHz | 25mA |
| 45.000+ ~ 80.000 MHz | 50mA |
| Output Symmetry (50% V _{DD}) | 40% ~ 60% |
| Rise Time (10% ~ 90% V _{DD}) (T _r) | 5nS |
| Fall Time (90% ~ 10% V _{DD}) (T _f) | 5nS |
| Output Voltage (V _{OL}) | 10% V _{DD} |
| (V _{OH}) | 90% V _{DD} Min |
| Output Current (I _{OL}) | 4.0mA Min |
| (I _{OH}) | -1.0mA Min |
| Output Load (HCMOS) | 15pF |
| Start-up Time (T _s) | 10mS |
| Enable/Disable Time ² | 150nS |
| Frequency Linearity | ±10% |
| Modulation Bandwidth | 20 kHz |

¹ Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, vibration, and V_c = 1.65V.

² An internal pullup resistor from pin 2 to pin 6 allows active output if pin 2 is left open.

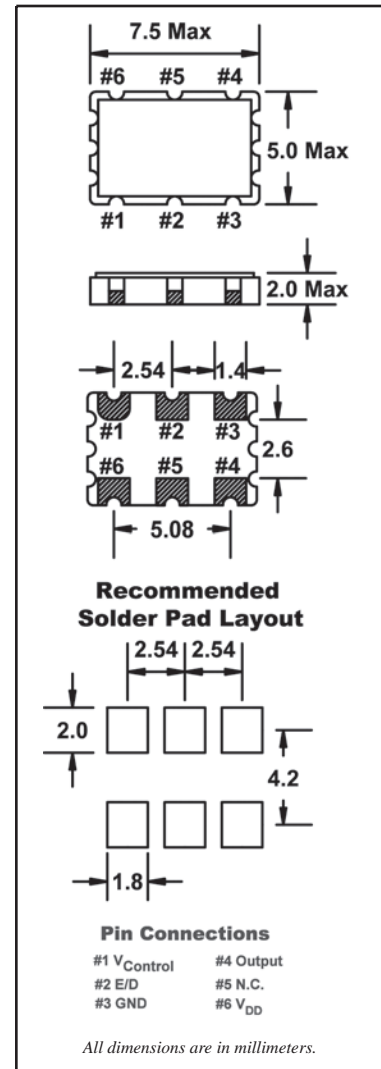
³ Available on an individual inquiry basis.

⁴ Custom specifications from 45.000 to 80.000 MHz available on an individual inquiry basis.

Note: A 0.01µF bypass capacitor should be placed between V_{DD} (Pin 6) and GND (Pin 3) to minimize power supply line noise.

Note: An alternate pin connection with E/D on pin #5 is available.

All specifications subject to change without notice.



• ENABLE / DISABLE FUNCTION

| | |
|---|----------------|
| INH (Pin 2) | OUTPUT (Pin 4) |
| OPEN ² | ACTIVE |
| '1' Level V _{IH} ≥ 70% V _{DD} | ACTIVE |
| '0' Level V _{IL} ≤ 30% V _{DD} | High Z |