

HCMOS/TTL COMPATIBLE TRI-STATE VCXO IN FR4/PCB SMD PACKAGE - VCFR Series

FEATURES

- RoHS Compliant (Pb-Free), Low Phase Jitter, EMI Shielded, Tri-state Output Standard
- Commercial or Industrial Temperature Range, Wide Pull Range Available
- Low Profile 9x14 mm SMD Package with Industry Standard Footprint

SPECIFICATIONS

1 MHz to 160 MHz **Frequency Range**

Input Voltage (Vcc) $A = +5 \text{ VDC} \pm 5\%$; $B = +3.3 \text{ VDC} \pm 5\%$

Input Current 20 mA Max @ 1 MHz - 20 MHz; 40 mA Max @ 20.001 MHz - 40 MHz

60 mA Max @ 40.001 MHz - 100 MHz; 100 mA Max @ 100.001 MHz - 200 MHz

 $+2.5V \pm 2.0V$ for 5.0V part; $+1.65V \pm 1.35V$ for 3.3V part Control Voltage (Vc)

Storage Temperature -55°C to 125°C

Temperature Range

Standard Stability / Pullability

Duty Cycle

Frequency Stability / APR (Min) $B = \pm 25 / \pm 50$ ppm; $C = \pm 50 / \pm 100$ ppm; $D = \pm 25 / \pm 75$ ppm; $E = \pm 20 / \pm 50$ ppm

 $A = 0^{\circ}C$ to $70^{\circ}C$; $B = -40^{\circ}C$ to $85^{\circ}C$; $G = -10^{\circ}C$ to $70^{\circ}C$

BA = ± 25 ppm / 0°C to 70°C, Absolute pull range (APR): ± 50 ppm Minimum

1 = Tristate 60/40% symmetry; 3 = Tristate 55/45% symmetry

HCMOS: drive up to 15 pF load; TTL: drive up to 10 TTL gates **Output Load**

Logic "1" / Logic "0" Level 0.9Vcc Minimum / 0.1Vcc Maximum Rise/Fall Time (Tr/Tf) 5 ns Maximum at 20% to 80% Vp-p

Start-up time 10 ms Maximum

Phase Jitter (RMS, 1 Sigma) 1 ps Maximum for fj > 1kHz; 0.3 ps Typical for fj = 12KHz to 20MHz

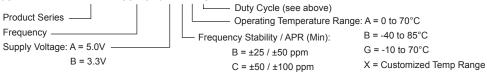
Modulation Bandwidth 10 kHz Minimum at -3 dB

Linearity / Slope ±20% Maximum of best straight line fit / Positive Setability at Fnom, 25°C +2.5V ±0.5V for 5.0V part; +1.65V ±0.4V for 3.3V part **Tristate Function** Input (Pin 2) High (> 2.5V) or open: Output (Pin 4) active

Input (Pin 2) Low (< 0.5V): Output disabled in high impedance

Enable/Disable Time 100 ns Maximum

Creating a Part Number VCFR-155M520-B B A 3



 $D = \pm 25 / \pm 75 ppm$ $E = \pm 20 / \pm 50 \text{ ppm}$

OUTLINE DRAWING

