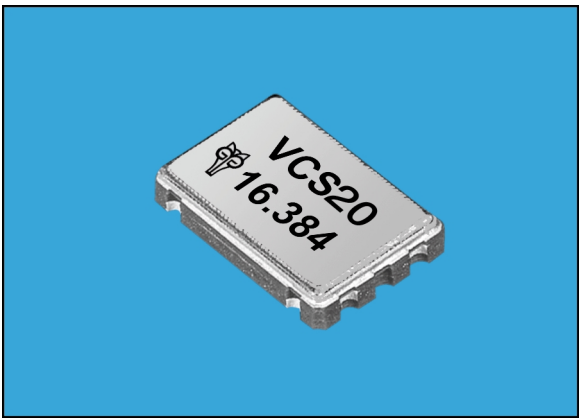


VCXO SMD LOW PROFILE/VOLTAGE CONTROLLED CRYSTAL OSCILLATOR VCSAT SERIES

The Fox VCS Series VCXO is an SMD, tight stability, voltage controlled oscillator available in a wide range of stability and pullability options. It is intended to be a general purpose VCXO with minimum utilization of board space.



FEATURES

- 5.0 Volt VDD
- HCMOS
- Enable/Disable
- Many Stability/Pullability Options
- -40 ~ +85°C Temp Range Option

• ELECTRICAL CHARACTERISTICS (VDD = 5.0V, CL = 15pF)

PARAMETERS	FREQUENCY RANGE	CONDITIONS		MAX	
Frequency Range (Fo)			1.000	52.000 ³ 77.760	MHz
Temperature Range Operating (TOPR)	1.000 ~ 77.760		-10 -40	+70 +85	°C
Storage (TSTG)			-40	+85	
Supply Voltage (VDD)	1.000 ~ 77.760		+4.75	+5.25	V
Control Voltage (Vc)	1.000 ~ 77.760		+0.5	+4.5	V
Input Current (IDD)	1.000 ~ 18.000 18.000+ ~ 36.000 36.000+ ~ 52.000 52.000+ ~ 77.760			20 30 40 60	mA
Output Symmetry	1.000 ~ 77.760	2.5V	40	60	%
Rise Time (TR)	1.000 ~ 77.760	1.0V ~ 4.0V		5	nS
Fall Time (TF)	1.000 ~ 77.760	4.0V ~ 1.0V		5	
Output Voltage (VOL) (VOH)	1.000 ~ 77.760	IOL = 16.0 mA IOH = -4.0 mA	4.5	0.5	V
Output Current (IOL) (IOH)	1.000 ~ 77.760	VOL = 0.5V VOH = 4.5V		16.0 -4.0	mA
Output Load	1.000 ~ 77.760	TTL HCMOS		10 15	TTL pF
Start-up Time (Ts)	1.000 ~ 77.760			10	mS
Enable/Disable Time ⁴	1.000 ~ 77.760			100	nS
Frequency Linearity	1.000 ~ 77.760		-10	+10	%
Modulation Bandwidth	1.000 ~ 77.760		20		kHz

¹ Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, vibration, and Vc=2.5V.

² Available on an individual inquiry basis

³ Custom specifications from 52.000 to 77.760MHz available on an individual inquiry basis.

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

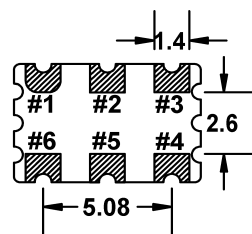
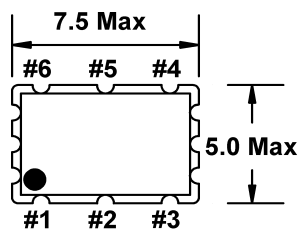
All specifications subject to change without notice. Rev. 11/26/01

• ENABLE / DISABLE FUNCTION⁴

Pin 2	OUTPUT (Pin 4)
OPEN	ACTIVE
≥ 2.2 V	ACTIVE
≤ 0.8 V	High Z

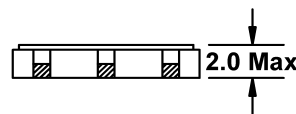
All dimensions are in millimeters.

See page 74 for tape and reel specifications.



Pin Connections

- #1 V_{Control}
- #2 E/D
- #3 GND
- #4 Output
- #5 N.C.
- #6 V_{DD}



• MODEL SELECTION

Model Number		Stability (PPM)(MAX) ¹	Pullability (PPM) (MIN) Vc = 2.5 ± 2.0V
-10°C ~ +70°C	-40°C ~ +85°C		
VCS12AT	VCS12ATR ²	±25***	±50
VCS15AT	VCS15ATR	±50	±50
VCS22AT	VCS22ATR ²	±25	±100
VCS25AT	VCS25ATR	±50	±100
VCS20AT	VCS20ATR	±100	±100

Recommended Solder Pad Layout

