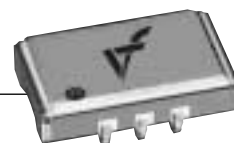


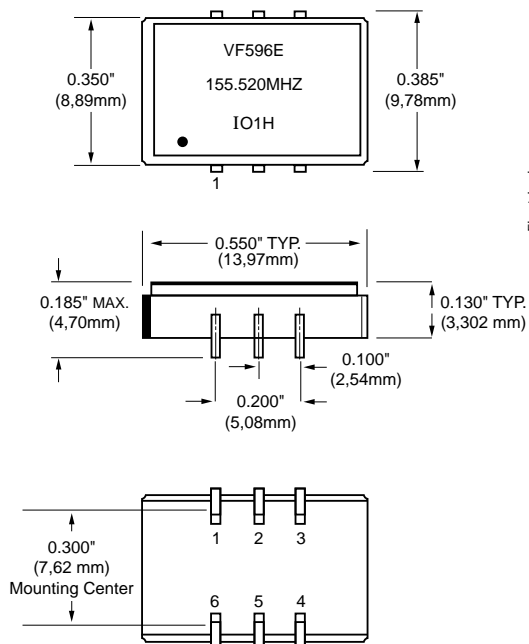
VF596E



ECLinPS™ Compatible Surface Mount VCXO for 3.3 Volt Applications

FEATURES

- Wide and High Frequency Range
- Wide Pull Range Available
- No Frequency Multiplication is Used: Very Low Phase Jitter
- Complementary Output Standard
- Fundamental Crystal Design



All dimensions are typical unless otherwise specified.

Creating a Part Number

VF596E [] - [] - [] - **FREQ.**

FREQUENCY STABILITY	
Code	Specification
S	±20 ppm
	±25 ppm

ABSOLUTE PULL RANGE	
Code	Specification
	±100 ppm MIN. (std.)
XXX	specify deviation MIN. (up to ±200 ppm MAX.)

INPUT VOLTAGE	
Code	Specification
L	3.3 Volt ±5%
	5.0 Volt ±5% (std.)

OPERATIONAL TEMP. RANGE	
Code	Specification
1	0°C to +70°C (std.)
	-40°C to +85°C

Example: VF596ES-1-50-155.520MHz; Frequency Stability ±20ppm, Duty Cycle ±5.0%, Input Voltage 3.3 Volt ±5%, Operational Temperature -45°C to +85°C, Complementary Output, APR ±50ppm, Frequency 155.520MHz.

Parameter	Symb	Condition	Min	Typ	Max	Unit	Note	
Absolute Max. Ratings	Input Break Down Voltage	Vcc	-0.5		7.0	V		
	Storage Temp.	Ts	-55		+85	°C		
	Control Voltage	Vc	-1		9	V		
Electrical	Frequency Range	F	12.5		200	MHz		
	Frequency Stability	ΔF/F	Vs. Vcc, Temp.		±25	ppm		
	Input Voltage	Vcc	4.75 3.15	5.00 3.30	5.25 3.45	V	Std. LV Opt.	
	Input Current	Icc/Iee	50 Ohm Load		65	mA		
	Duty Cycle		@50%	45	50	55	%	
	Load	50 Ohm to Vcc-2V or Thevenin Equiv. Bias Required						
	Rise/Fall Time	Tr/Tf	20% to 80%			0.6	ns	
	Logic "1" Level	Voh		Vcc-0.96		Vcc-0.81	V	
	Logic "0" Level	Vol		Vcc-1.85		Vcc-1.65	V	
	Start-up Time	Ts			2	10	ms	
	Phase Jitter		1σ			1	ps	fj>1KHz
	Modulation BW	fm	@Vc = 2.5V	10			KHz	@-3db
	Input Impedance		fm<10KHz	50			KOhm	
	Control Voltage	Vc		0		3.3	V	
	Deviation		Vc = 0V to 3.3V, 25°C		±100		ppm	
	Absolute Usable Pull Range	APR	Overall	±50			ppm	
	Deviation Slope		Monotonic, positive		50		ppm/V	
Linearity					±20	%	1	
Setability (Vc for center freq)	Vc0	@25°C, Fnom.	1.25	1.65	2.05	V		
Enable/Disable Function		Input HIGH (>2.5V) Input LOW (<0.5V): or floating:			DISABLED ACTIVE			
Enable/Disable Time	Te/Td				100	ns		
Environmental and Mechanical	Operating Temperature Range	0°C to +70°C (-40°C to +85°C available)						
	Mechanical Shock	Per MIL-STD-202, Method 213, Cond. E						
	Thermal Shock	Per MIL-STD-883, Method 1011, Cond. A						
	Vibration	Per MIL-STD-883, Method 2007, Cond. A						
	Soldering Conditions	260°C, for 10s, Max., or 230°C for 90s Max.						
Hermetic Seal	Leak rate less than 5 x 10 ⁻⁸ atm.cc/s of helium							
Electrical Connections	Pin Out	Pin #1-Voltage Control Pin #3-Ground, Case Pin #5-Complementary Output					Pin #2-Negative Enable (internal pulldown) Pin #4-Output Pin #6-Vcc	

Note: Tighter linearity specification available.

All specifications are subject to change without notice.