

14 PIN DIP ECL OSCILLATOR F5L

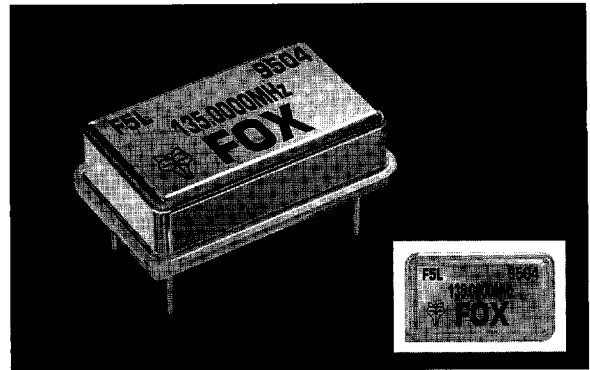
Fox F5L ECL Clock Oscillators feature a high frequency range. The standard 14 pin dip all metal package provides shielding to minimize RF radiation, helping to meet FCC EMI specifications.

FEATURES

- High Frequency Range
- 10 KH Logic Output
- Low Noise

OPTIONS

- Complementary Output
- Pullup/Down Internal Resistors
- Various Pin Connections
- $\pm 50\text{PPM}$ (F6L Series), $\pm 25\text{PPM}$ (F7L Series)



Actual Size

• ELECTRICAL CHARACTERISTICS ($T_a = -10 \sim 70^\circ\text{C}$ $V_{EE} = -5.2\text{V} \pm 5\%^{**}$, $V_{TT} = -2.0\text{V}^{**}$ $R_T = 50\Omega^{**}$)

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MIN	MAX	UNITS
Frequency Range (Fo)			30.000	200.000	MHz
Frequency Stability	30.000 ~ 200.000	All Conditions *	-100	+100	PPM
Temperature Range					
Operating (TOPR)			-10	+70	$^\circ\text{C}$
Storage (TSTG)			-55	+125	
Supply Voltage (V_{EE})			-5.46	-4.94	V^{**}
Input Current (I_{DD})	30.000 ~ 170.000	(F5L-G, H, 4G, 4H)**		40	mA
	170.000+ ~ 200.000	(F5L-G, H, 4G, 4H)**		50	
Output Symmetry	30.000 ~ 200.000	50% Vp-p Level	40	60	%
Rise Time (TR)	30.000 ~ 170.000	20% Vp-p ~ 80% Vp-p Level		2.0	nS
	170.000+ ~ 200.000			1.5	
Fall Time (TF)	30.000 ~ 170.000	80% Vp-p ~ 20% Vp-p Level		2.0	
	170.000+ ~ 200.000			1.5	
Output Voltage (V_{OL})	30.000 ~ 200.000	'0' Logic Level (F5L-G, H, 4G, 4H)**	-1.95	-1.60	V
			+3.05	+3.42	
(V_{OH})	30.000 ~ 200.000	'1' Logic Level (F5L-G, H, 4G, 4H)**	-1.00	-0.75	
			+4.00	+4.45	
Output Load	30.000 ~ 200.000	ECL Load		5	Gates
Overlap Time	30.000 ~ 200.000	50% Vp-p (Complementary only)		0.5	nS
Start-up Time (Ts)	30.000 ~ 200.000			10	mS

• PART NUMBER SELECTION / PIN CONNECTIONS

Single Output						Complementary Output						PullUp/Down
Part#	Pin 1	Pin 7	Pin 8	Pin 14	Resistor	Part#	Pin 1	Pin 7	Pin 8	Pin 14	Resistor	
F5L-B	NC	GND	OUTPUT	-5.2V	Down [a]	F5L-4B	OUTPUT 1	GND	OUTPUT 2	-5.2V	Down [a]	
E	NC	GND	OUTPUT	-5.2V	None	4E	OUTPUT 1	GND	OUTPUT 2	-5.2V	None	
C	NC	-5.2V	OUTPUT	GND	Down [a]	4C	OUTPUT 1	-5.2V	OUTPUT 2	GND	Down [a]	
F	NC	-5.2V	OUTPUT	GND	None	4F	OUTPUT 1	-5.2V	OUTPUT 2	GND	None	
H	NC	GND	OUTPUT	+5.0V	Up [a]	4H	OUTPUT 1	GND	OUTPUT 2	+5.0V	Up [a]	
G	NC	GND	OUTPUT	+5.0V	None	4G	OUTPUT 1	GND	OUTPUT 2	+5.0V	None	

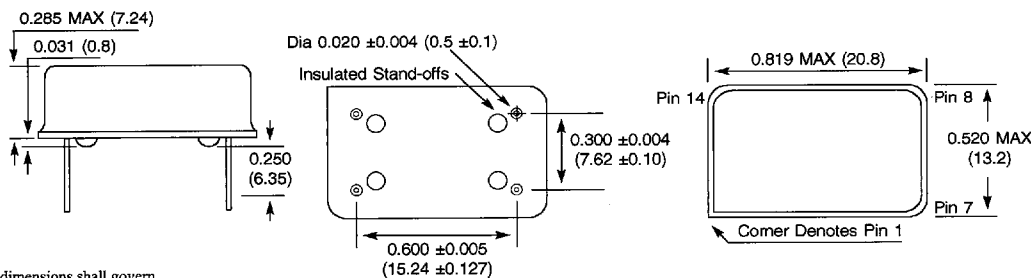
* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration.

[a] up to 170MHz

** F5L-G, F5L-H $V_{cc} = 5.0\text{V} \pm 0.25\text{V}$. Consult factory for test circuitry.

See page 33 for environmental/mechanical specifications, test circuits, and output waveform.

All specifications subject to change without notice. Rev. 10/1/96



Pin Connections (F5L-F)
 #1 N.C. #8 Output
 #7 -5.2V #14 GND (Case)

Inch dimensions shall govern.
 All dimensions are in inches & parenthetically in millimeters.