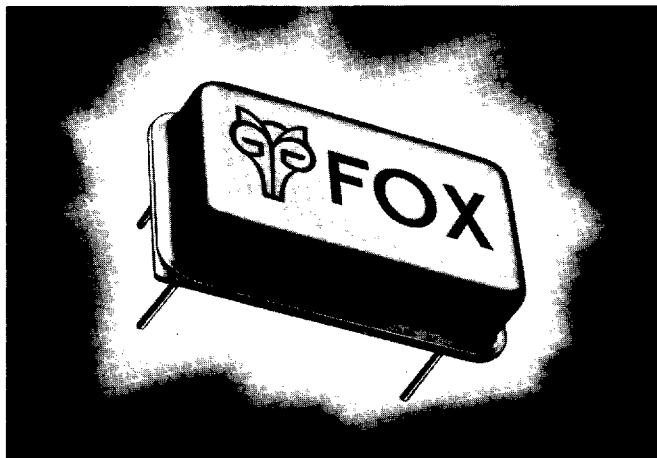


F5L / 14 PIN DIP ECL OSCILLATOR



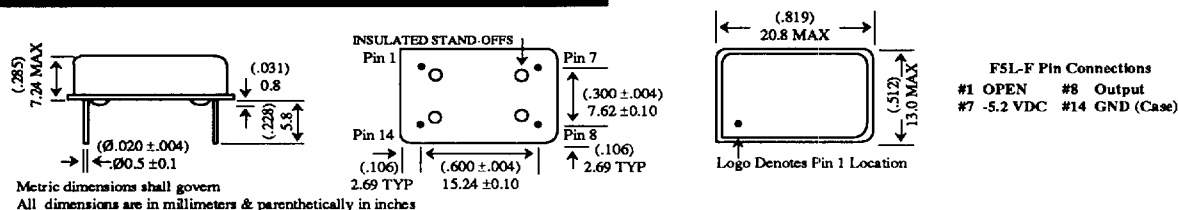
FOX F5L ECL Clock Oscillators feature a high frequency range. The standard 14 pin dip all metal package provides shielding to minimize RF radiation, helping to meet FCC EMI specifications.

FEATURES

10 KH Logic Output
Low Noise

OPTIONS

Complementary Output
Pullup/Down Internal Resistors
Various Pin Connections



F5L OPERATING CONDITIONS

Frequency Range	(Fo)	30.000 ~ 200.000	MHz
Temperature Range -	Operating (TA)	-10 ~ +70	°C
	Storage (TSTG)	-55 ~ +125	°C
Supply Voltage	(VDD)	-5.2 ±0.26	V **

PART NUMBER SELECTION

FREQUENCY STABILITY	PART NUMBER
±100PPM	F5L-X
±50PPM	F6L-X
±25PPM	F7L-X

X = see table below

ELECTRICAL CHARACTERISTICS (TA = -10 to 70°C VEE = 5.2V ±5%**, VTT = -2.0V** RT = 50Ω**)

PARAMETERS	FREQUENCY RANGES	CONDITION	MIN	TYP	MAX	UNITS
Frequency Stability		*	-100	±50	+100	PPM
Input Current (IDD)	30.000 ~ 170.000			28	40	mA
		(F5L-G, H, 4G, 4H)**		33 ~ 38	50	
	170.000+ ~ 200.000	(F5L-G, H, 4G, 4H)**		38	50	
Output Symmetry		50% VP-P Level	40	50 ±5	60	%
Rise Time (Tr)	30.000 ~ 170.000	20% VP-P ~ 80% VP-P		1.0	2.0	ns
	170.000+ ~ 200.000			0.7	1.5	
Fall Time (Tf)	30.000 ~ 170.000	80% VP-P ~ 20% VP-P		1.0	2.0	
	170.000+ ~ 200.000			0.7	1.5	
Output Voltage (VOL)		'0' Logic Level	-1.95		-1.60	V
		(F5L-G, H, 4G, 4H)**	+3.05		+3.42	
		'1' Logic Level	-1.00		-0.75	
(VOH)		(F5L-G, H, 4G, 4H)**	+4.00		+4.45	
Output Current (IOL)		'0' Logic Level	1.0			mA
		'1' Logic Level			25.0	
Output Load		ECL Load			5	Gates
Overlap Time (To)		50% VP-P (Complementary only)			0.5	ns
Start-up Time (Ts)					10	ms

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

[a] up to 110MHz

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

[b] up to 170MHz

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

** F5L-G, F5L-H Vcc = 5.0V ±0.25V. Consult factory for test circuitry.

See page 43 for environmental/mechanical specifications, test circuits, and output waveforms.

All specifications subject to change without notice. Rev. 1/30/93

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