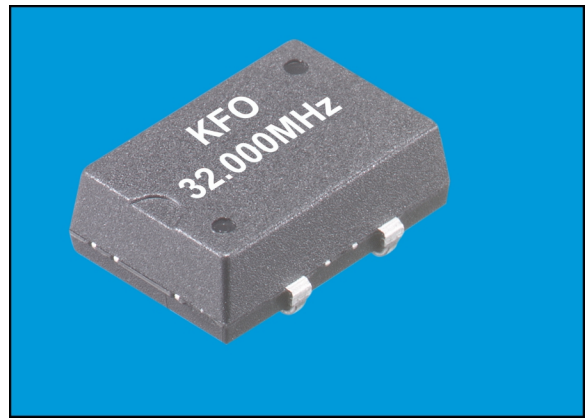


# SURFACE MOUNT HCMOS/TTL OSCILLATOR KFO SERIES

The KFO90AT, a plastic encased surface mount oscillator, maintains the same land pattern as our FSO series, but with smaller overall dimensions. This reliable J-leaded component drives up to 10TTL gates or a 50pF HCMOS load, and offers low current consumption and tight symmetry.

## FEATURES

- 50pF / 10TTL
- Industry Standard Footprint
- Tri-state Enable/Disable
- Fast Rise/Fall Times
- Tape and Reel (1,000 pcs. STD)
- Available in -40° C to +85° C (KFO90FT)
- Available with ±50 PPM stability (KFO95AT)



• MODEL NUMBER SELECTION			
Frequency Stability (PPM)*	Operating Temperature (°C)	Frequency Range (MHz)	Model Number
+/-100	-10 ~ +70	1.500 ~ 67.000	KFO90AT
+/-100	-40 ~ +85	1.500 ~ 67.000	KFO90FT
+/-50	-10 ~ +70	1.500 ~ 67.000	KFO95AT

## • ELECTRICAL CHARACTERISTICS (V<sub>DD</sub> = 5.0V, C<sub>L</sub> = 50pF)

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MIN	MAX	UNITS
Frequency Range (F <sub>o</sub> )			1.500	67.000	MHz
Frequency Stability	1.500 ~ 67.000	All Conditions *	-100 -50	+100	PPM
Temperature Range Operating (T <sub>OPR</sub> )			-10 -40	+70 +85	°C
Storage (T <sub>STG</sub> )			-55	+125	
Supply Voltage (V <sub>DD</sub> )			+4.5	+5.5	V
Input Current (I <sub>DD</sub> )	1.500 ~ 32.000 32.000+ ~ 50.000 50.000+ ~ 67.000			27 45 60	mA
Output Symmetry	1.500 ~ 50.000 50.000+ ~ 67.000	2.5V	45 40	55 60	%
Rise Time (T <sub>R</sub> )	1.500 ~ 67.000	0.5V to 4.5V		7	nS
Fall Time (T <sub>F</sub> )	1.500 ~ 67.000	4.5V to 0.5V		7	
Output Voltage (V <sub>OL</sub> ) (V <sub>OH</sub> )	1.500 ~ 67.000	I <sub>OL</sub> = 16 mA I <sub>OH</sub> = -16 mA	4.5	0.5	V
Output Current (I <sub>OL</sub> ) (I <sub>OH</sub> )	1.500 ~ 67.000	V <sub>OL</sub> = 0.5 V V <sub>OH</sub> = 4.5 V		16 -16	mA
Output Load	1.500 ~ 67.000	TTL HCMOS		10 50	TTL pF
Start-up Time (T <sub>S</sub> )	1.500 ~ 67.000			10	mS
Enable/Disable Time	1.500 ~ 67.000	See Table**		100	nS

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

\*\*\* An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

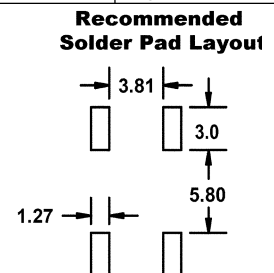
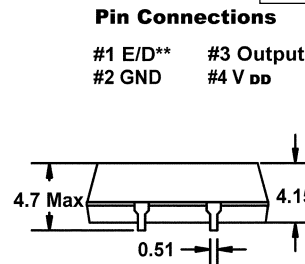
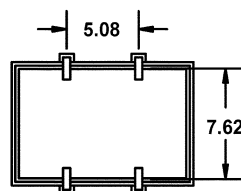
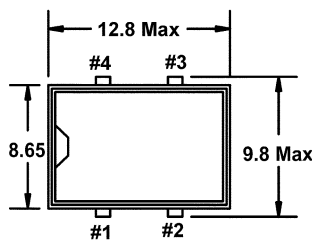
Note: A 0.01 μF bypass capacitor should be placed between V<sub>DD</sub> (Pin 4) and GND (Pin 2) to minimize power supply line noise.

See page 44 for mechanical specifications, test circuits, and output waveform.

All specifications subject to change without notice. Rev. 03/02/00

## • ENABLE / DISABLE FUNCTION\*\*

INH (Pin 1)	OUTPUT (Pin 3)
OPEN ***	ACTIVE
'1' Level V <sub>IH</sub> ≥ 2.2 V	ACTIVE
'0' Level V <sub>IL</sub> ≤ 0.8 V	High Z



All dimensions are in millimeters.

See page 74 for tape and reel specifications.