

Spread Spectrum HCMOS 7x5mm 3.3V SMD Oscillator



Model: FSS73 Series

RoHS Compliant / Pb Free

Rev. 12/9/2008

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Fox Electronics Spread Spectrum Oscillators use industry-leading, proven, analog technologies which allows them to be used in a wide range of high-performance applications. These products offer various down-spread and center-spread options, enabling the customer to optimize the EMI reduction for their application requirements.

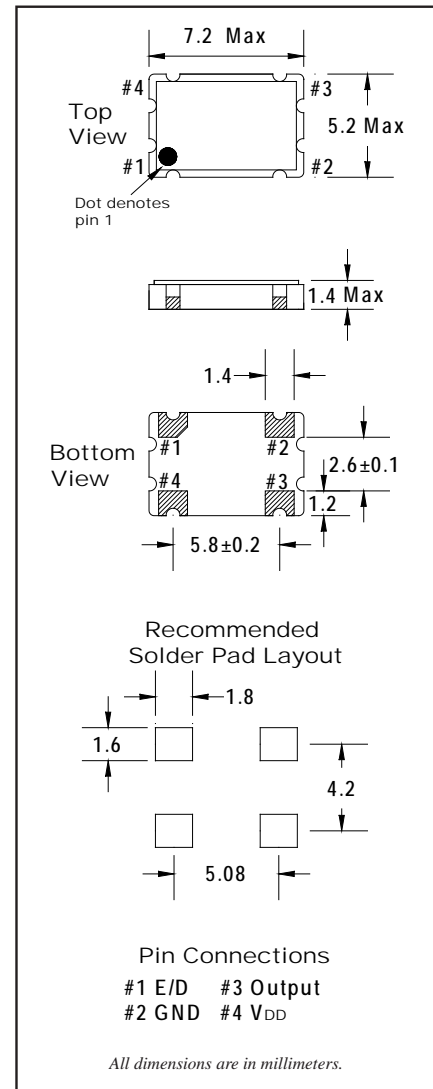
ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	13.000 ~ 160.000 MHz
Storage Temperature Range (T _{STG})	-55°C ~ +125°C
Frequency Stability (demodulated frequency)	±100 PPM ¹
Supply Voltage (V _{DD})	3.3V ± 10%
Input Current (I _{DD})	
13.000000 ~ 49.999999 MHz	20mA
50.000000 ~ 79.999999 MHz	25mA
80.000000 ~ 99.999999 MHz	30mA
100.000000 ~ 160.000000 MHz	40mA
Rise Time (10% ~ 90% V _{DD}) (T _R)	
13.000000 ~ 49.999999 MHz	10nS
50.000000 ~ 79.999999 MHz	8nS
80.000000 ~ 99.999999 MHz	5nS
100.000000 ~ 160.000000 MHz	4nS
Fall Time (90% ~ 10% V _{DD}) (T _F)	
13.000000 ~ 49.999999 MHz	10nS
50.000000 ~ 79.999999 MHz	8nS
80.000000 ~ 99.999999 MHz	5nS
100.000000 ~ 160.000000 MHz	4nS
Output Symmetry (50% V _{DD})	40% ~ 60%
Output Voltage (HCMOS)	
Output Low (V _{OL})	10% V _{DD}
Output High (V _{OH})	90% V _{DD} Min
Output Current (I _{OL})	8mA Min
(I _{OH})	-8mA Min
Output Load	15pF
Standby Current (FSS73S)	10µA
Startup Time	10mS
Disable Time	100nS
Enable Time	
FSS73B (Tristate)	2mS
FSS73S (Standby)	10mS
Spread Spectrum Function (See Model Selection Guide, Page 2)	
Center Spread	±0.25% ~ ±2.0%
Down Spread	-0.5% ~ -4.0%
Aging	±3 PPM/Year
Maximum Soldering Temp / Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au

¹ Inclusive of initial frequency tolerance and operating temperature range.
(Other stabilities to ±20 PPM available.)

² An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

Note: Drawing is for reference to critical specifications defined by size measurements.
Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary. The above specifications, having been carefully prepared and checked, are believed to be accurate at the time of publication; however, no responsibility is assumed by Fox Electronics for inaccuracies. All specifications subject to change without notice.



ENABLE / DISABLE FUNCTION

INH (Pin 1)	OUTPUT (Pin 3)
OPEN ²	ACTIVE
'1' Level V _{IH} ≥ 70% V _{DD}	ACTIVE
'0' Level V _{IL} ≤ 30% V _{DD}	High Z

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Model Selection Guide & Fox Part Number

STEP #1: Customer selects the Model Description and provides to Fox Customer Service
Model Description

FSS7 3 B C B R - 106.25 Frequency (in MHz)

7 = 7 x 5mm

3 = 3.3V

B = Tristate
S = Standby

C = Center Spread
D = Down Spread

blank = 0°C to +70°C
R = -40°C to +85°C

Spread Range

Center Spread	Down Spread
A = ±0.25%	G = -0.5%
B = ±0.5%	H = -1.0%
C = ±0.75%	J = -1.5%
D = ±1.0%	K = -2.0%
E = ±1.5%	L = -3.0%
F = ±2.0%	M = -4.0%

STEP #2: The Fox Customer Service team provides a customer specific Part Number for use on their Bill Of Materials (BOM).

Fox Part Number (The assigned Fox Part Number must be on the BOM – not the above Model Description)
(This will ensure receipt of the proper part)

814 - 106.25 - 8

The 1st Field
Product Code #
814 = FSS73B
814A = FSS73S

The 2nd Field
The Customer's Frequency

The 3rd Field
Fox Internally Generated Number
(If any specification changes,
the last digits change)
(The same specs for a different customer
also changes the last digits)

This example: **FSS73BCBR-106.25** = 7 x5mm Package, 3.3V, Tristate, Center Spread, ±0.5% Modulation Rate, -40 to +85°C Temperature Range, at 106.25 MHz

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Need a
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• TAPE SPECIFICATIONS (millimeters)							
MODEL	A	B	C	D	E	F	STD Reel QTY
FSS73 Series	∅1.5	4.0	8.0	5.5	12.0	1.4	1,000

• REEL SPECIFICATIONS (millimeters)							
MODEL	G	H	I	J	K	L	M
FSS73 Series	2.0	∅13	∅21	∅62	∅180	12.2	1.6

