3.3V, HCMOS, SMD Oscillator

Model: F4100 SERIES **RoHS Compliant / Pb Free**

XpressO® Equivalent

FXO-HC73

Why XpressO?

Lower Cost, Faster Delivery, Low Jitter!

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• PART NUMBER SELECTION

Learn More - Internet Required

Part Number	Model Number	Frequency Stability[1]	Operating Temperature (ºC)	Frequency Range (MHz)
116-Frequency-xxxxx	F4100	±100PPM	-10 ~ +70	0.012 ~ 170.000
117-Frequency-xxxxx	F4100R	±100PPM	-40 ~ +85	0.012 ~ 170.000
124-Frequency-xxxxx	F4105	±50PPM	-10 ~ +70	0.012 ~ 170.000
125-Frequency-xxxxx	F4105R	±50PPM	-40 ~ +85	0.012 ~ 170.000
126-Frequency-xxxxx	F4106	±25PPM	-10 ~ +70	0.012 ~ 165.000
127-Frequency-xxxxx	F4106R	±25PPM*	-40 ~ +85	0.012 ~ 156.520
128-Frequency-xxxxx	F4108	±20PPM*	-10 ~ +70	0.012 ~ 162.000

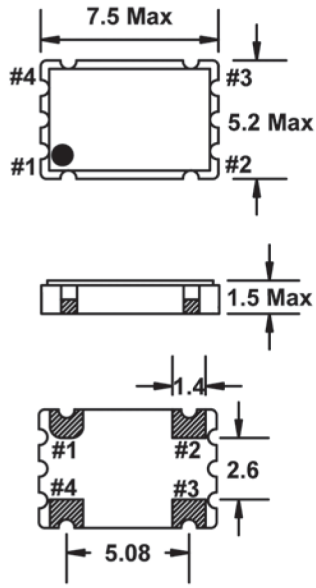
• ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	0.012 ~ 170.000 MHz
Storage Temperature Range (Tstg)	-55ºC ~ +125ºC
Supply Voltage (Vdd)	3.3V ± 10%
Input Current (Idd)	
0.012 ~ 0.040 MHz	3mA
0.040+ ~ 1.500 MHz	6mA
1.500+ ~ 32.000 MHz	15mA
32.000+ ~ 50.000 MHz	20mA
50.000+ ~ 67.000 MHz	25mA
67.000+ ~ 170.000 MHz	40mA
Output Symmetry (50% Vdd)	
0.012 ~ 50.000 MHz	45% ~ 55%
50.000+ ~ 170.000 MHz	40% ~ 60%
Rise Time (10% ~ 90% Vdd) (Tr)	
0.012 ~ 80.000 MHz	6nS
80.000+ ~ 125.000 MHz	4nS
125.000+ ~ 170.000 MHz	3nS
Fall Time (90% ~ 10% Vdd) (Tf)	
0.012 ~ 80.000 MHz	6nS
80.000+ ~ 125.000 MHz	4nS
125.000+ ~ 170.000 MHz	3nS
Output Voltage (Vol)	10% Vdd
(Voh)	90% Vdd Min
Output Current (Iol)	2mA Min
(Ioh)	-2mA Min
Output Load (HCMOS)	15pF
Standby Current	10µA
Start-up Time (Ts)	
0.012 ~ 32.000 MHz	5mS
32.000+ ~ 170.000 MHz	10mS
Output Disable Time [2]	150nS
Output Enable Time [2]	
0.012 ~ 32.000 MHz	5mS
32.000+ ~ 170.000 MHz	10mS
Jitter	
12kHz ~ 20MHz	0.3pS Typ.
RMS Period	2.5pS Typ.
Cycle-to-Cycle	20pS Typ.

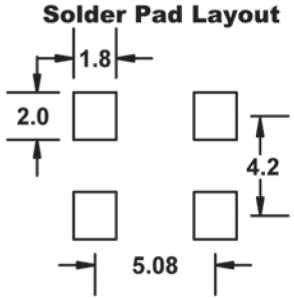
[1] Inclusive of 25ºC tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration. *Excludes Shock/Vibration

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

Note: A 0.01µF bypass capacitor should be placed between VDD (Pin 4) and GND (Pin 2) to minimize power supply line noise.



Recommended Solder Pad Layout



Pin Connections

#1 E/D #3 Output

#2 GND #4 V DD

All dimensions are in millimeters.

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. All specifications subject to change without notice.

• ENABLE / DISABLE FUNCTION [2]

INH (Pin 1)	OUTPUT (Pin 3)
OPEN [2]	ACTIVE
'1' Level Vih ≥ 70% Vdd	ACTIVE
'0' Level Vil ≤ 30% Vdd	High Z

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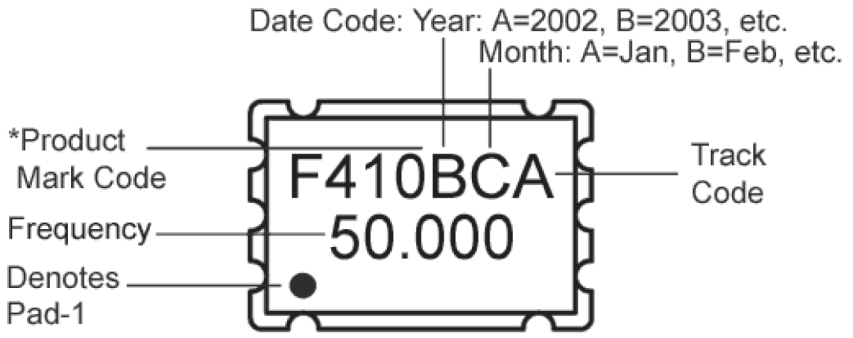
F4100 Series Marking Identification

Models: F4100,F4100R,F4105,F4105R,F4106,F4106R,F4108

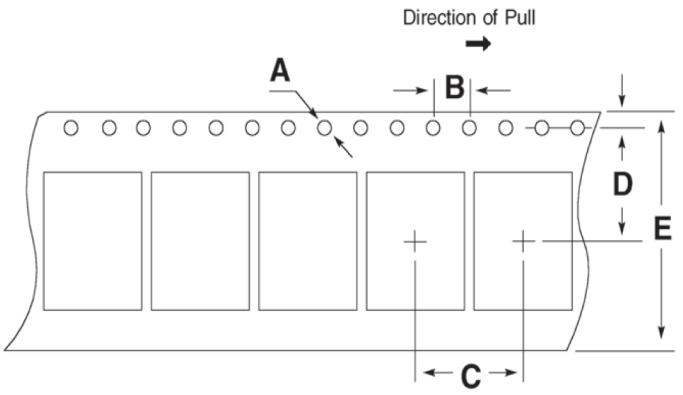
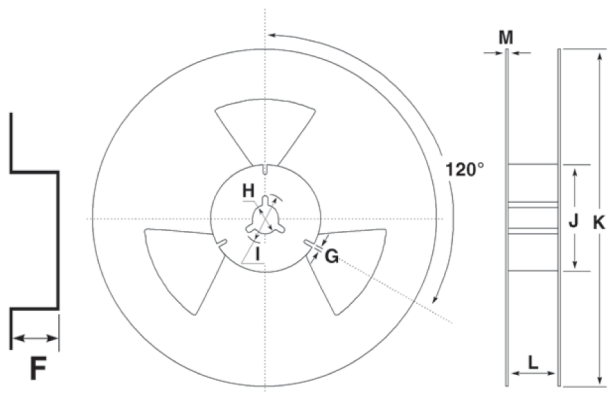


*F410 product marking code used for all F4100 model numbers. Frequency stability and operating temperature will not be identified from marking. External packaging labels and receiving invoice will correctly identify ordered Fox part number.

pm_F4100.gif, Rev 01

• TAPE SPECIFICATIONS (millimeters)

MODEL	A	B	C	D	E	F	STD Reel QTY
F4100 Series	∅1.5	4.0	8.0	7.5	16.0	2.15	2,000

• REEL SPECIFICATIONS (millimeters)

MODEL	G	H	I	J	K	L	M
F4100 Series	2.0	∅13	∅21	∅80	∅255	17.5	2.0