



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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HCMOS 2.0x1.6mm 3.3V SMD Oscillator



Model: F130 SERIES

RoHS Compliant / Pb Free

Rev. 3/9/2011

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FEATURES

- 3.3V Operation
- Standby Function
- Tape and Reel (3,000 pcs. STD)

• PART NUMBER SELECTION [Learn More](#) - Internet Required

Part Number	Model Number	Frequency Stability	Operating Temperature (°C)	Frequency Range (MHz)
837-Frequency-xxxxx	F130	±100PPM ¹	-20 ~ +70	1.000 ~ 80.000
837A-Frequency-xxxxx	F130R	±100PPM ¹	-40 ~ +85	1.000 ~ 80.000
837B-Frequency-xxxxx	F135	±50PPM ¹	-20 ~ +70	1.000 ~ 80.000
837C-Frequency-xxxxx	F135R	±50PPM ¹	-40 ~ +85	1.000 ~ 80.000
837D-Frequency-xxxxx	F136	±25PPM ²	-10 ~ +60	1.000 ~ 80.000

• ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	1.000~ 80.000 MHz
Storage Temperature Range (T _{STG})	-40°C ~ +85°C
Supply Voltage (V _{DD})	3.3V ± 10%
Input Current (I _{DD})	
1.000000 ~ 40.000000 MHz	5mA
40.000001 ~ 60.000000 MHz	10mA
60.000001 ~ 80.000000 MHz	15mA
Output Symmetry (50% V _{DD})	45% ~ 55%
Rise Time (10% ~ 90% V _{DD})	6nS
Fall Time (90% ~ 10% V _{DD})	6nS
Output Voltage (V _{OL})	10% V _{DD}
(V _{OH})	90% V _{DD} Min
Output Current (I _{OL})	4mA Min
(I _{OH})	-4mA Min
Output Load (HCMOS)	15pF
Standby Current	10µA
Start-up Time (T _s)	2mS
Output Disable Time ³	50uS
Output Enable Time ³	2mS
Phase Noise (36 MHz @ 1 kHz offset)	-120dBc/Hz Typ.
Maximum Soldering Temp / Time	260°C ±5°C / 5 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au over Ni

¹ Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, reflow freq. shift and one year aging.

² Inclusive of 25°C tolerance and operating temperature range.

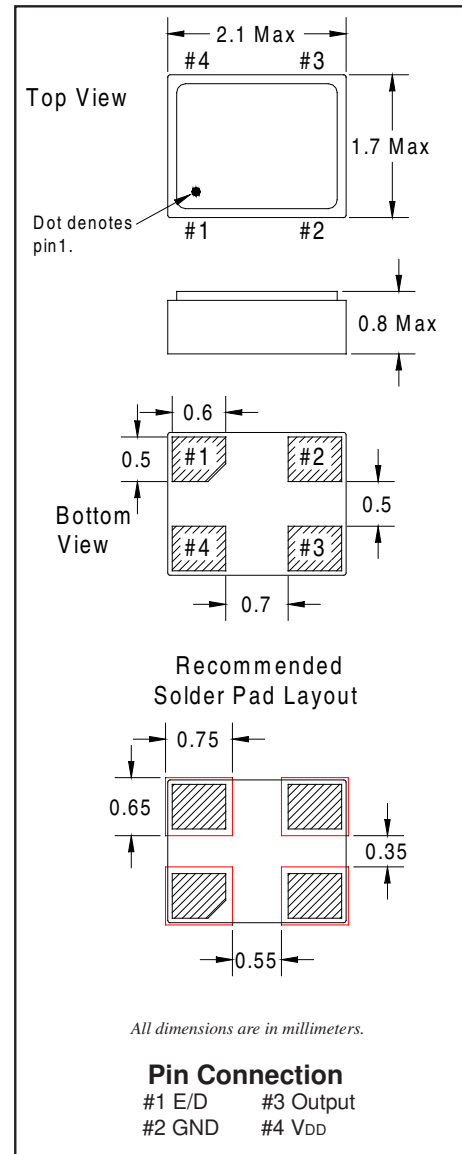
³ An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

Notes: A 0.01µF capacitor should be placed between V_{DD} (Pin 4) and GND (Pin2) to minimize power supply noise.

Dimensional 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

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

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• TAPE SPECIFICATIONS (millimeters)

MODEL	A	B	C	D	E	F	STD Reel QTY
F130 Series	∅1.5	4.0	4.0	3.5	8.0	1.15	3,000

• REEL SPECIFICATIONS (millimeters)

MODEL	G	H	I	J	K	L	M
F130 Series	2.0	∅13	∅21	∅60	∅180	9.0	1.7

