



Dynamic Engineers Inc.

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XO2520BM-32.768KHz

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Features and Benefits

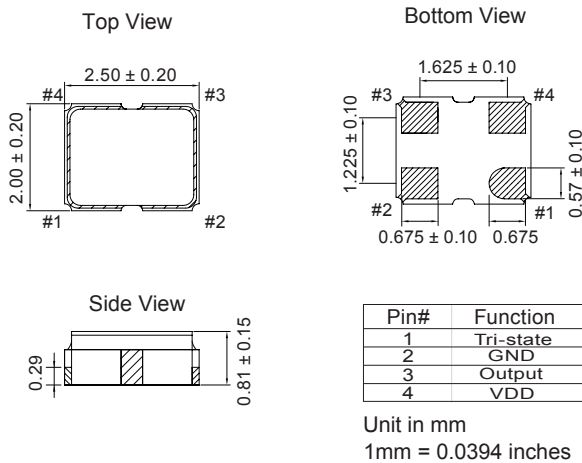
- Low Power Supply Voltage: 3.3, 2.5, 1.8 Supply Options
- Singled-end Output: CMOS
- Frequency: 32.768kHz
- Low Current Consumption: 18uA Max
- Temperature Range: -40°C to 85°C Operation
- Pb-free/RoHS Compliant

Typical Applications

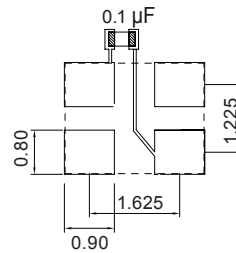
- RTC Module
- Smartphone
- IoT
- Wearable Device
- Watch, Medical

Mechanical Drawing & Pin Connections

Drawing No: MD200007-1



Solder PAD Layout



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.



Specifications

Specification	Condition	3.3V		2.5V		1.8V		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation		VDD -10%	VDD +10%	VDD -5%	VDD +5%	VDD -5%	VDD +5%	V
Frequency Range		32.768						KHz
Supply Current (No Load)		-	18	-	18	-	18	uA
Output Loading (CMOS)		-	15	-	15	-	15	pF
Duty Cycle		45	55	45	55	45	55	%
Output Level	Output High	2.97	-	2.25	-	1.62	-	V
	Output Low	-	0.33	-	0.25	-	0.18	
Transition Rise/Fall Time		-	15	-	15	-	15	nSec
Start Time		-	20	-	20	-	20	mSec
Tri-State (Input to Pin2)	Enable	0.7xVDD	-	0.7xVDD	-	0.7xVDD	-	V
	Disable	-	0.3xVDD	-	0.3xVDD	-	0.3xVDD	
Standby Current		-	3	-	3	-	3	uA
Aging	@25°C 1 st year	-	±3	-	±3	-	±3	ppm
Storage Temp. Range		-55°C to +125°C						°C

Frequency Stability vs. Temperature

	±20PPM	±25PPM	±50PPM
-10°C to +60°C	Available	Available	Available
-20°C to +70°C	Available	Available	Available
-40°C to +85°C	Conditional	Available	Available

Note: Inclusive of calibration @25°C, operating temperature range, input voltage variation, load variation, aging (1st year), shock and vibration.