

ARTC2050-XLP-PF



RTC module, I²C interface, 3.2 x 1.5 x 0.8mm

Features:

Extreme low power consumption: 40 nA @ 3 V.
Time accuracy: Factory calibrated to ± 1 ppm @ 25°C
Clock output: 32.768 kHz, 8192 Hz, 1024 Hz, 64 Hz, 32 Hz, 1 Hz.
Automotive qualification AEC-Q200 compliant option



Description:

The surface mount Real-Time Clock Module that incorporates an integrated CMOS circuit together with an XTAL. It operates under vacuum in a hermetically sealed ceramic package with metal lid.

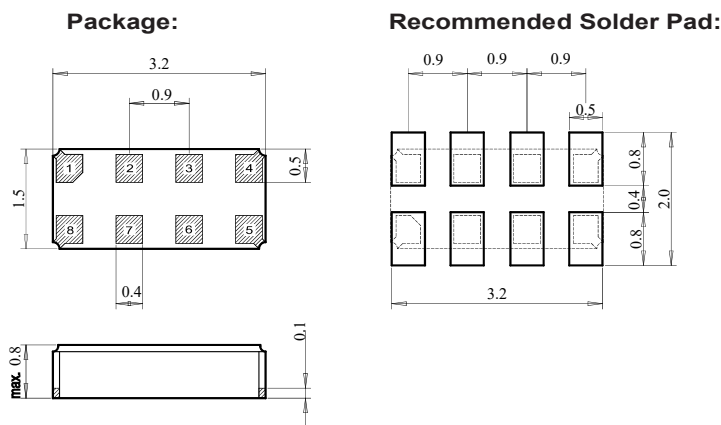
Electrical characteristics at 25°C						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Supply voltage	V _{DD}	1.2		5.5	V	I2C-bus active
Supply voltage	V _{DD}	1.1		5.5	V	Time keeping
Current consumption time keeping mode	I _{DD}		40	60	nA	I2C-bus inactive, V _{DD} 3V
CLKOUT frequency		32768.....to..... 1			Hz	Programmable
Time accuracy	$\Delta t/t$	± 1.0			ppm	@ 25°C
Aging first year max.	$\Delta F/F$	± 3.0			ppm	@ 25°C
Environmental characteristics						
Storage temp. Range		-55 to +125			°C	
TA operating temperature range		-40 to +85			°C	
Shock resistance		Max ± 5.0			ppm	5000 g, 0.3ms, ½ sine
Vibration resistance		Max ± 5.0			ppm	20 g/10-2000Hz
Other information						
Package-type		SON 8-pin				
Termination		Au flashed pads				
Processing		Reflow soldering 260°C / 20 s max				
Packaging (Tape and Reel)		1kpcs/reel, 3kpcs/reel				

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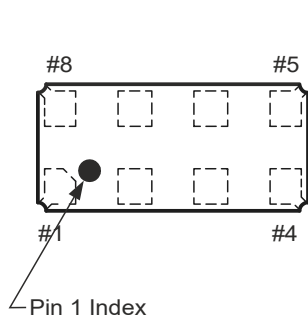
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Mechanical dimensions and Pin functions

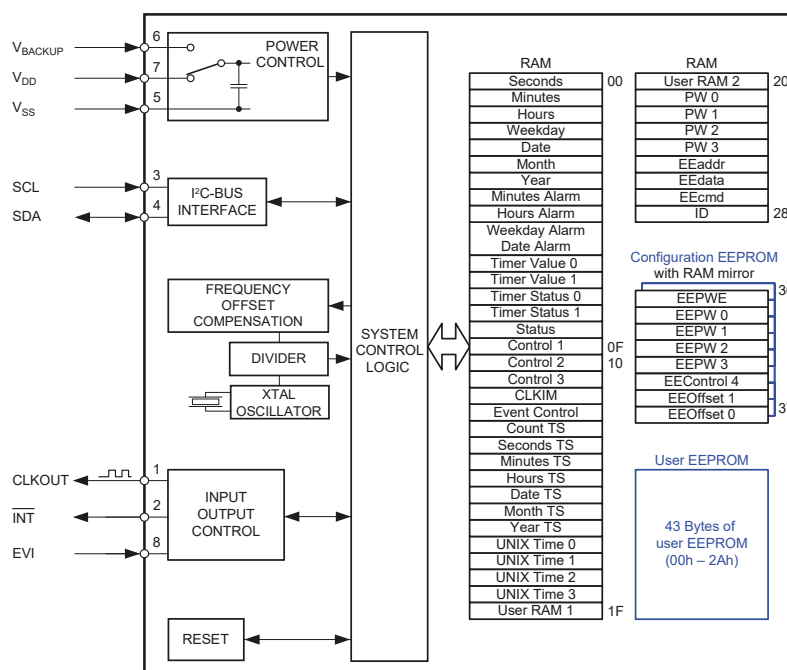


All dimensions in mm typical



Pin	Connection
1	CLKOUT Clock output
2	INT Interrupt output
3	SCL Serial clock input
4	SDA Serial data
5	V _{SS} Ground
6	V _{backup} Backup supply voltage
7	VDD Power supply voltage
8	EVI Event input

Block diagram

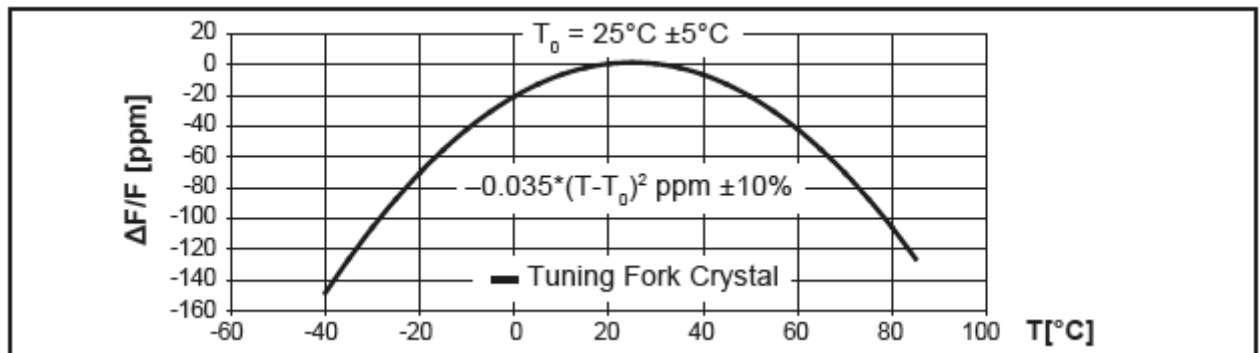


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Frequency stability vs operating temperature



Drawing control: (Internal use only)
Commodity code: 9110 9000
Issue number : N1
Date : 01/06/2018
Internal reference : M1

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