

The ECS-RTC-3225-5609 Real Time Clock Module (I<sup>2</sup>C-Bus) with built in 32.768 kHz TCXO. It supports calendar (year, month, day, hour, minute, second), clock and timer functions.



- Low Frequency Resonator
- RoHS Compliant
- Extended temp range

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-RTC-3225-5609			UNITS
		MIN	TYP	MAX	
Power Supply Voltage	Normal mode	2.5	3.0	5.0	V
Power Supply Voltage	V <sub>DD</sub> =V <sub>BAT</sub>	1.6	3.0	5.0	V
Backup Battery	V <sub>BAT</sub>	1.6	3.0	5.0	V
Current Consumption I <sub>DD</sub>	Battery Supply		2.0	3.0	μA
Stability	-20 ~ +70°C			±5	ppm
	-40 ~ -20°C			±20	Ppm
	+70 ~ +85°C			±20	Ppm
Oscillation start time	@ +25°C			1	s
Aging				±3	Ppm
Operating Temperature	T <sub>opr</sub>	-40		+85	°C
Storage Temperature	T <sub>stg</sub>	-40		+85	°C

### Block Diagram

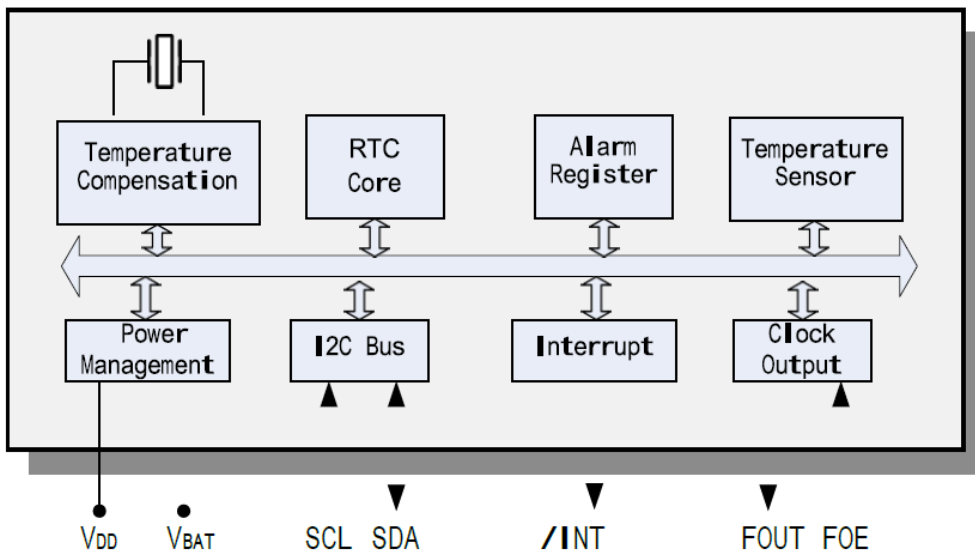
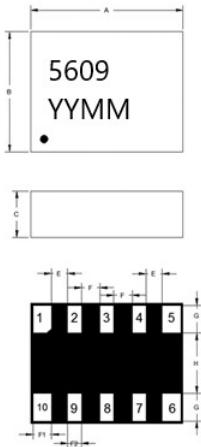


Figure 1) Top, and Side Views

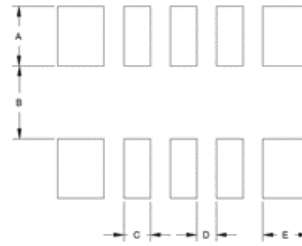
**PART NUMBER: ECS-RTC-3225-5609-TR**

### Dimensions (mm)



Dimension	Min.	Typ.	Max.
A	3.0	3.2	3.4
B	2.3	2.5	2.7
C	--	1.0	--
E	--	0.30	--
F	--	0.4	--
G	--	0.6	--
H	--	1.3	--
F1	--	0.45	--
F2	--	0.30	--

(Unit: mm)



Dimension	Max.
A	0.9
B	1.1
C	0.4
D	0.3
E	0.7

(Unit: mm)

Figure 1) Top, Side, Bottom View

Figure 2) Suggested Soldering Pattern

Pin Number	Pin Name	I/O	Description
1	FOE	In	FOUT output control pin. "1" - enable FOUT, "0" - FOUT Hi-Z
2	V <sub>DD</sub>	-	Power supply
3	V <sub>BAT</sub>	-	Backup battery pin. Connect to large-capacity capacitors or a backup battery. Connect to V <sub>DD</sub> when switchover function is not necessary
4	FOUT	Out	Frequency output. Controlled by FOE. Frequency can be set by FSEL bits.
5	SCL	In	I <sup>2</sup> C clock signal
6	T1	-	Manufacturer test only. Ensure to be floating
7	SDA	In/Out	I <sup>2</sup> C data signal
8	T2	-	Manufacturer test only. Ensure to be floating
9	GND	-	Ground
10	/INT	Out	Interrupt Output, Open-Drain

Figure 3) Pin Function