

The ECS-RTC-3225-5699C3 Real Time Clock Module (I²C-Bus) with built in 32.768 kHz TCXO. It supports calendar (year, month, day, hour, minute,second), clock, temp sensor, VBAT and timer functions.



- Built in 32.768 khz TCXO
- Backup battery switchover function
- Extended temp range
- ±3 ppm Stability -40 ~ +85°C
- Built in temperature sensor

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-RTC-3225-5699C3			UNITS
		MIN	TYP	MAX	
Power Supply Voltage	Normal mode	2.5	3.0	5.0	V
Power Supply Voltage	VDD=VBAT (Note 1)	1.6	3.0	5.0	V
Backup Battery	VBAT	1.6	3.0	5.0	V
Current Consumption I _{DD}	Battery Supply		1.0		μA
Stability	-40 ~ +85°C			±3	ppm
Oscillation start time	@ +25°C			1	s
Aging	Per Year			±3	ppm
Temp. Sensor Accuracy	T _{emp} VDD=3.0V			±5	°C
Duty Cycle	t _w /t	40		60	%
Operating Temperature	T _{opr}	-40		+85	°C
Storage Temperature	T _{stg}	-40		+85	°C

Note 1) To apply Min Value of VDD and VBAT, VDD and VBAT need to be supplied with more than 2.5V at least for the oscillation to stabilize (oscillation start time tSTA).

Block Diagram

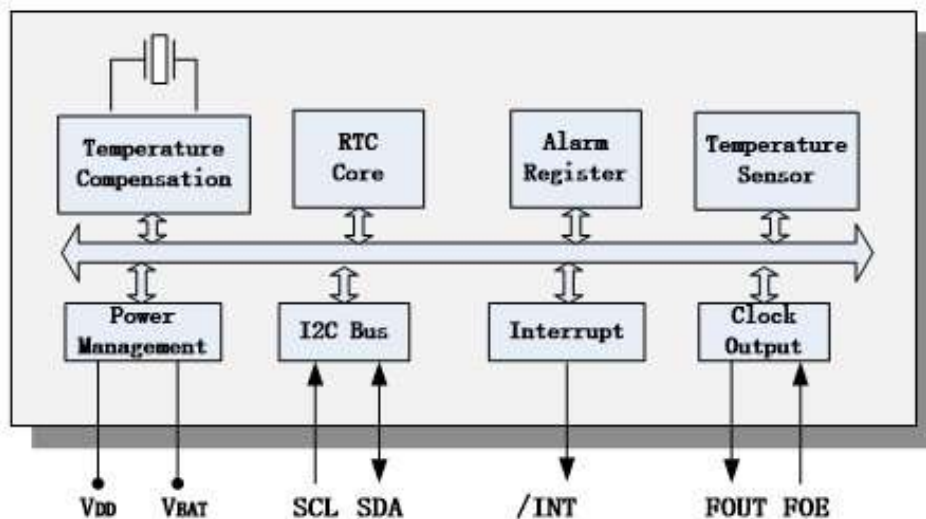
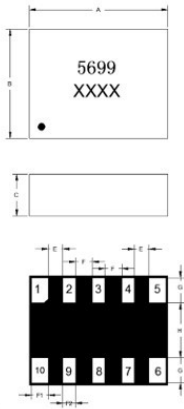


Figure 1) Top, and Side Views

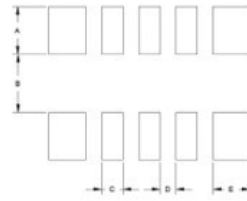
PART NUMBER: ECS-RTC-3225-5699C3-TR

Dimensions (mm)



Dimension	Min.	Typ.	Max.
A	3.0	3.2	3.4
B	2.3	2.5	2.7
C	--	1.0	--
E	--	0.3	--
F	--	0.4	--
G	--	0.6	--
H	--	1.3	--
F1	--	0.45	--
F2	--	0.3	--

(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 _{DD}	-	Power supply
3	V _{BAT}	-	Backup battery pin. Connect to large-capacity capacitors or a backup battery. Connect to V _{DD} 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 ² C clock signal
6	T1	-	Manufacturer test only. Ensure to be floating
7	SDA	In/Out	I ² 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