



## REAL TIME CLOCKS: Product Selection Table

Features	<a href="#">V3020</a>	<a href="#">V3021</a>	<a href="#">V3022</a>	<a href="#">V3023</a>	<a href="#">A3024</a>	<a href="#">V3025</a>
Built-in quartz crystal			●	●		●
Battery Switch Over (integrated)						● §
User RAM				16 bytes	16 bytes	16 bytes
Standby Current, 25°C (over temp)	0.4 (0.6) µA	0.8 (1.8) µA	1.2 (10) µA	1.2 (10) µA	1.2 (10) µA	1.2 (10) µA
Access time (max)	60 ns	60 ns	60 ns	60 ns	60 ns	60 ns
Supply Voltage	1.2 to 5.5V	2.0 to 5.5V	2.0 to 5.5V	2.0 to 5.5V	2.0 to 5.5V	2.0 to 5.5V
Interface	1-bit serial	1-bit serial	8-bit parallel	8-bit parallel	8-bit parallel	8-bit parallel
Timer, Alarm, Pulse Interrupts			●	●	●	●
Temperature Compensation by Digital Trimming			●	●	●	●
Operating Temperature Range	-40°C to <b>125°C</b>	-40°C to <b>125°C</b>	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Package	SO-8 TSSOP-8	SO-8 DIP-8	SO-28	SO-28	SO-20 DIP-20	SO-28

§ Available without built-in quartz upon request (minimum order quantity).

### FEATURES of all RTCs:

- Work with 32kHz quartz oscillator
- Intel and Motorola interface compatibility
- Operates from -40°C to +85°C or +125°C
- Digital trimming for temperature compensation
- No external component needed  
(other than possibly a crystal)
- Frequency stability  $\leq 1\text{ppm/V}$
- Y2K compliant
- BCD output of second, minute, hour, day of the week, date, week number, month and year
- Leap year correction
- Clock counts up to 99 years
- Sleep mode capability

**Ultra-low current  $<1.2\mu\text{A}$**

**Operation up to 125°C**

**Temperature Compensation**

**External or internal 32kHz Quartz**