

Display Drivers and Interface ICs

CMOS 32-KHz Quartz Analog Clock Circuit Supply Voltage Range: 1.1 to 5V

Type	Description	Oscillator			Operating Current (Pin 7 Open) μ A	Package Number of Pins*
		Input Frequency KHz	Starting Volts ($I_{OL} = \pm 1\mu$ A) V	Stability PPM/V		
CD22777	For quartz crystal-controlled analog clocks with stepping motor drives. Nominal 1.5V operation.	32.678	1.0 (min.)	2 (typ.)	5 ($V_{DD} = 1.2V$) 50 ($V_{DD} = 3.5V$)	8E

* See interpretation guide and packaging section

Interface ICs Timers/Counters Without Display Drivers

Type	Description	Package Number of Pins*
ICM7555	Low-power VMOS equivalent of industry standard 555 timer - only 80 μ A supply current. Does not have the large supply current transients of the bipolar 555 and does not require the large by-passing capacitors needed by the 555. Low leakage threshold and trigger inputs allow use of higher impedance RC timing components for extra-long time delays. T_A Range: 0 to +70°C, -25 to +85°C, -55 to +125°C	AB JD PA PD TT
ICM7556	Dual ICM7555, CMOS, low-power equivalent of the Bipolar 556 Timer.	
ICM7240 ICM7250	Programmable CMOS counter/timer. Uses on-board RC oscillator or an external clock. The count is programmed by wire-AND connection of the outputs. Excellent for ON/OFF delay timers, $\div$ N counters. Special features: ICM7240, Binary 0-225; ICM7250; BCD 0-99 T_A Range: -25 to +85°C	JE
ICM7242	RC oscillator + 8-bit counter, similar to ICM7240 but with fixed 256 count. Used for extremely long time delays. Cascadable. Special Features: Fixed 128/255 T_A Range: 0 to +70°C, -25 to +85°C	BA JA PA

* See interpretation guide and packaging section

CMOS Real-Time Clock

Type	Description	Package Number of Pins*
ICM7170	Microprocessor bus-compatible peripheral IC uses an 8-bit bidirectional bus for the data I/O circuitry. Device access time (300ns) eliminates the need for any microprocessor wait states or software overhead. Standby μ power operation: 2 μ A typ. at 3 volts with 32kHz crystal. T_A Range: -55 to +125°C, -40 to +85°C	BG DG PG

* See interpretation guide and packaging section

Time Base Generators

Type	Output Frequency (Hz)	Supply Voltage (V)	Typical Current (μ A)	Leakage Current (μ A)	Crystal Frequency (MHz)	Package Number of Pins*
ICM7209	250kHz-10MHz	4.5-5.5	11,000	$\pm 10\blacksquare$	1-10	JA PA
Choice of 2 output frequencies: oscillator and oscillator $\div$ 8. Drives up to 5 TTL loads.*						
ICM7207 CMOS		4-5.5	260	50 $\square$	2-10	JD PD EV/KIT
Low power dissipation: $\leq 2mW$ with 5V supply. Count Windows: ICM7207 (10/100ms) with 6.5536#, ICM7207A (0.1 to 1 sec.) with 5.24288#						
ICM7207A CMOS	Like ICM7207 but the Gating Output RESET and the MULTIPLEX Output provides both pull up and pull down					

Operating Temperature Range: ICM7207, ICM7207A: -25 to +85°C. ICM7209: -20 to +85°C

* See interpretation guide and packaging section

 $\square$ Output (all Outputs (STORE Only) $\blacksquare$ Disable Input (Either "1" or "0" State) # MHz crystal