

## 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) μA	Package Number of Pins*
		Input Frequency KHz	Starting Volts (I <sub>OL</sub> = ±1μA) 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 <sub>DD</sub> = 1.2V) 50 (V <sub>DD</sub> = 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 80μA 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 <sub>A</sub> 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, + N counters. Special features: ICM7240, Binary 0-225; ICM7250; BCD 0-99 T <sub>A</sub> 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 <sub>A</sub> 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: 2μA typ. at 3 volts with 32kHz crystal. T <sub>A</sub> 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 (μA)	Leakage Current (μA)	Crystal Frequency (MHz)	Package Number of Pins*
ICM7209	250kHz-10MHz	4.5-5.5	11,000	±10■	1-10	JA PA
Choice of 2 output frequencies: oscillator and oscillator ÷ 8. Drives up to 5 TTL loads.*						
ICM7207 CMOS		4-5.5	260	50□	2-10	JD PD EV/KIT
Low power dissipation: <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

□ Output (all Outputs (STORE Only) ■ Disable Input (Either "1" or "0" State) # MHz crystal