

Device Information

ICM7555





















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General Purpose Timers

 Datasheet & Related Docs	 Description	 Key Features	 Parametric Data	 Related Devices
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Ordering Information

 **RoHS/Pb-Free/Green Device**

Part No.	Status	Temp.	Package	Price		
				MSL	US \$	
ICM7555CBA	Active	Comm	8 Ld SOIC	1	0.21	
ICM7555CBA-T	Active	Comm	8 Ld SOIC T+R	1	0.21	
ICM7555CBAZ 	Active	Comm	8 Ld SOIC	1	0.21	 
ICM7555CBAZ-T 	Active	Comm	8 Ld SOIC T+R	1	0.21	
ICM7555IBA	Active	Ind	8 Ld SOIC	1	0.21	 
ICM7555IBAT	Active	Ind	8 Ld SOIC T+R	1	0.21	
ICM7555IBAZ 	Active	Ind	8 Ld SOIC	1	0.21	 
ICM7555IBAZ-T 	Active	Ind	8 Ld SOIC T+R	1	0.21	
ICM7555IPA	Active	Ind	8 Ld PDIP	N/A	0.24	 
ICM7555IPAZ 	Active	Ind	8 Ld PDIP	N/A	0.24	 
ICM7555ITV	InActive	Ind	8 Ld Can			
ICM7555MTV	InActive	Mil	8 Ld Can			

The price listed is the manufacturer's suggested retail price for quantities between 100 and 999 units. However, prices in today's market are fluid and may change without notice.

MSL = Moisture Sensitivity Level - per IPC/JEDEC J-STD-020

SMD = Standard Microcircuit Drawing

Description

The ICM7555 and ICM7556 are CMOS RC timers providing significantly improved performance over the standard SE/NE555/6 and 355 timers, while at the same time being direct replacements for those devices in most applications. Improved parameters include low supply current, wide operating supply voltage range, low THRESHOLD, TRIGGER and RESET currents, no crowbaring of the supply current during output transitions, higher frequency performance and no requirement to decouple CONTROL VOLTAGE for stable operation.

Specifically, the ICM7555 and ICM7556 are stable controllers capable of producing accurate time delays or frequencies. The ICM7556 is a dual ICM7555, with the two timers operating independently of each other, sharing only V+ and GND. In the one shot mode, the pulse width of each circuit is precisely controlled by one external resistor and capacitor. For a stable operation as an oscillator, the free running frequency and the duty cycle are both accurately controlled by two external resistors and one capacitor. Unlike the regular bipolar 555/6 devices, the CONTROL VOLTAGE terminal need not be decoupled with a capacitor. The circuits are triggered and reset on falling (negative) waveforms, and the output inverter can source or sink currents large enough to drive TTL loads, or

provide minimal offsets to drive CMOS loads.

Key Features

- Exact Equivalent in Most Cases for SE/NE555/556 or TLC555/556
- Low Supply Current
 - ICM7555 60 μ A
 - ICM7556 120 μ A
- Extremely Low Input Currents 20pA
- High Speed Operation 1MHz
- Guaranteed Supply Voltage Range 2V to 18V
- Temperature Stability 0.005%/oC at 25oC
- Normal Reset Function - No Crowbarring of Supply During Output Transition
- Can be Used with Higher Impedance Timing Elements than Regular 555/6 for Longer RC Time Constants
- Timing from Microseconds through Hours
- Operates in Both Astable and Monostable Modes
- Adjustable Duty Cycle
- High Output Source/Sink Driver can Drive TTL/CMOS
- Outputs have Very Low Offsets, HI and LO
- Pb-Free Available (RoHS Compliant)

Related Documentation

DS Datasheet(s):

- [General Purpose Timers](#)

Other:

- [8 Lead Dual-In-Line Plastic Package \(JEDEC MS-001-BA Issue D\)](#)
- [8 Lead Narrow Body Small Outline Plastic Package \(JEDEC MS-012-AA Issue C\)](#)
- [Mil-Std-1835 MACY1-X8 \(A1\) 8 Lead Metal Can Package](#)

PT Parametric Data

Oscillator Type	RC
Freq. Range (Hz)	0.1 to 1M
I _{CC} (μ A)	40
V _{CC} Range (\pm V)	2 to 18

Applications

- Precision Timing
- Pulse Generation
- Sequential Timing
- Time Delay Generation
- Pulse Width Modulation
- Pulse Position Modulation
- Missing Pulse Detector

Related Devices

PT [Parametric Table](#)

[ICM7242](#) Long Range Fixed Timer

[ICM7556](#) General Purpose Timers

