



MOTOROLA

MC3393P

Advance Information

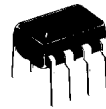
TWO MODULUS PRESCALER

The MC3393P can divide by 15 and 16, and can be used with Motorola CMOS frequency synthesizers MC145146, 52, 56 for commercial AM-FM radio, land mobile and marine two-way radios, avionic radios, and scanner receivers.

- 140 MHz (typ) Toggle Frequency
- $\div 15/16$
- TTL and CMOS Compatible Output
- Active Pullup and Pulldown
- +5.0 V Supply
- Buffered Clock Input
- 100–400 mV (typ) Input Sensitivity
- 200 Milliwatts (typ)

TWO MODULUS PRESCALER

SILICON MONOLITHIC INTEGRATED CIRCUIT



**N SUFFIX
PLASTIC PACKAGE
CASE 626-04**

FIGURE 1 — LOGIC DIAGRAM

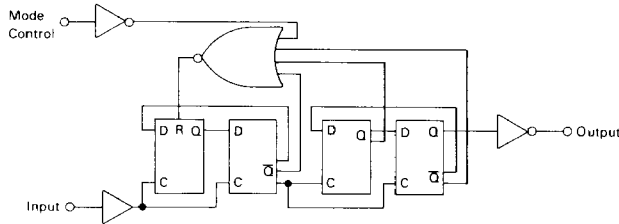
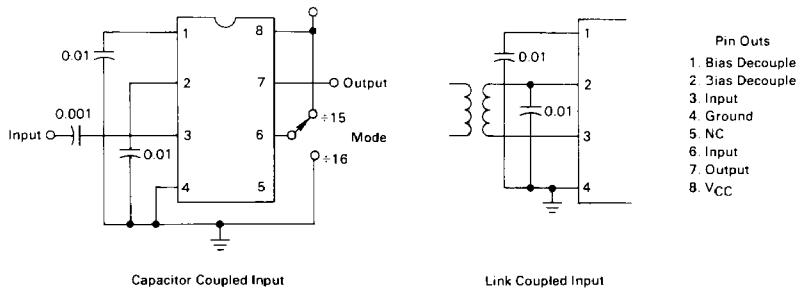


FIGURE 2 — TEST CIRCUITS



This document contains information on a new product. Specifications and information herein are subject to change without notice.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Power Supply Voltage	V _{CC}	6.0	Vdc
Input Mode Control Voltage	V _{ICR}	10	Vdc
Junction Temperature	T _J	150	°C
Operating Temperature Range	T _A	-40 to +85	°C
Storage Temperature Range	T _{stg}	-65 to +150	°C

PRELIMINARY ELECTRICAL CHARACTERISTICS (Unless otherwise noted V_{CC} = +5.0 Vdc, T_A = 25°C, f_{in} = 100 MHz)

Characteristics	Min	Typ	Max	Units
Power Supply Voltage	4.5	—	5.5	Vdc
Current Drain	—	40	—	mA
Input Voltage	100	—	400	mV(rms)
Input Impedance: Real Part	—	900	—	Ohms
Capacitance	—	6.0	—	pF
Mode Control Voltage for 15 Count	2.7	—	10	Vdc
Mode Control Voltage for 16 Count	0	—	0.8	Vdc
Output High at 30 μA Source	2.7	4.3	—	Vdc
Output Low at 1.6 mA Sink	—	0.3	0.8	Vdc
Propagation Delay Time	—	25	—	ns
Set up Time (16 to 15 Count) Measured before Rising Edge of Clock on Count 15	—	20	—	ns
Release Time (15 to 16 Count) Measured before Falling Edge of Clock Preceding Count 15	—	15	—	ns
Thermal Resistance, R _{θJC}	—	100	—	°C/W

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