

## Product Overview

### MC12093: ÷2, ÷4, ÷8, 1.1 GHz Low Power Prescaler

For complete documentation, see the data sheet.

The MC12093 is a single modulus prescaler for low power frequency division of a 1.1 GHz high frequency input signal. MOSAIC V(tm) technology is utilized to achieve low power dissipation of 6.75 mW at a minimum supply voltage of 2.7 V. On-chip output termination provides output current to drive a 2.0 pF (typical) high impedance load. If additional drive is required for the prescaler output, an external resistor can be added parallel from the OUT pin to GND to increase the output power. Care must be taken not to exceed the maximum allowable current through the output. Divide ratio control inputs SW1 and SW2 select the required divide ratio of 2, 4, or 8. Stand-By mode is featured to reduce current drain to 50 uA typical when the standby pin SB is switched LOW disabling the prescaler.

### Features

- 1.1 GHz Toggle Frequency
- Supply Voltage 2.7 V to 5.5 Vdc
- Low Power 3.0 mA Typical
- Operating Temperature -40 to 85°C
- Divide by 2, 4 or 8 Selected by SW1 and SW2 Pins
- On-Chip Termination
- Pb-Free Packages are Available

### Applications

- General Purpose Clock Generation

Part Electrical Specifications											
Product	Pricing (\$/Unit)	Compliance	Status	Type	Input Level	Output Level	V <sub>CC</sub> Typ (V)	f <sub>Max</sub> Typ (MHz)	t <sub>pd</sub> Typ (ns)	t <sub>rx</sub> & t <sub>f</sub> Max (ps)	Package Type
MC12093DG		Pb-free	Active	Prescaler	ECL	ECL	3.3	1100	-	-	SOIC-8
		Halide free									
MC12093DR2G		Pb-free	Active	Prescaler	ECL	ECL	3.3	1100	-	-	SOIC-8
		Halide free									
MC12093MNR4G		Pb-free	Active	Prescaler	ECL	ECL	3.3	1100	-	-	DFN-8
		Halide free									

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