4-Bit Data Bus Input PLL Frequency Synthesizer

Interfaces with Single-Modulus Prescalers

The MC145145–2 is programmed by a 4–bit input, with strobe and address lines. The device features consist of a reference oscillator, 12–bit programmable reference divider, digital phase detector, 14–bit programmable divide–by–N counter, and the necessary latch circuitry for accepting the 4–bit input data.

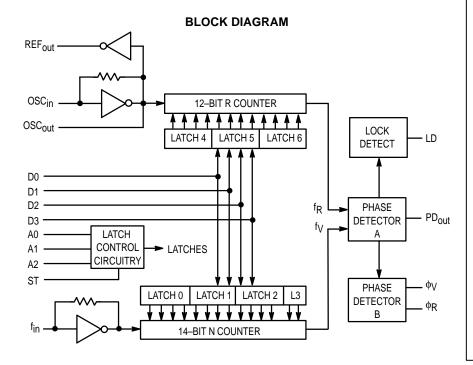
- Operating Temperature Range: 40 to 85°C
- Low Power Consumption Through the Use of CMOS Technology
- 3.0 to 9.0 V Supply Range
- Single Modulus 4-Bit Data Bus Programming
- ÷N Range = 3 to 16,383, ÷R Range = 3 to 4,095
- "Linearized" Digital Phase Detector Enhances Transfer Function Linearity
- Two Error Signal Options:

Single-Ended (Three-State)

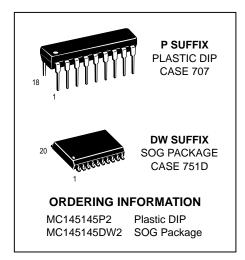
Double-Ended

NOT RECOMMENDED FOR NEW DESIGNS; PRODUCT TO BE PHASED OUT.

Closest equivalents are the MC145151–2, MC145170–1, MC14519X series, and MC14520X series.



MC145145-2



PIN ASSIGNMENTS PLASTIC DIP 18 D2 17 D3 D0 [16 REFout fin [15 🛮 φ_R VSS [] 4 VDD [14 **□** φ_V osc_{in} [13 LD 12 DPD_{out} osc_{out} [11 ST A0 🛮 A1 🛛 9 10 🛮 **SOG PACKAGE** D1 [20 D2 D0 [19 D3 18 REFout NC L □ φ_R 17 f_{in} [16 **□** ϕ_V VSS L 15 LD VDD [14 DPD_{out} osc_{in} [osc_{out} [13 🛭 ST A0 🛛 9 12 A2 A1 🛛 10 11 NC NC = NO CONNECTION

REV 2 1/98 TN98012200



Motorola reserves the right to make changes without further notice to any products herein. Motorola makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Motorola assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters which may be provided in Motorola data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Motorola does not convey any license under its patent rights nor the rights of others. Motorola products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Motorola product could create a situation where personal injury or death may occur. Should Buyer purchase or use Motorola products for any such unintended or unauthorized application, Buyer shall indemnify and hold Motorola and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Motorola was negligent regarding the design or manufacture of the part. Motorola and manufacture of the part. Motor

How to reach us:

USA/EUROPE/Locations Not Listed: Motorola Literature Distribution; P.O. Box 5405, Denver, Colorado 80217. 1–303–675–2140 or 1–800–441–2447

Mfax™: RMFAX0@email.sps.mot.com - TOUCHTONE 1-602-244-6609 Motorola Fax Back System - US & Canada ONLY 1-800-774-1848

- http://sps.motorola.com/mfax/ HOME PAGE: http://motorola.com/sps/

JAPAN: Nippon Motorola Ltd.: SPD, Strategic Planning Office, 141,

Mfax is a trademark of Motorola, Inc.

ASIA/PACIFIC: Motorola Semiconductors H.K. Ltd.; 8B Tai Ping Industrial Park, 51 Ting Kok Road, Tai Po, N.T., Hong Kong. 852–26629298

4-32-1 Nishi-Gotanda, Shagawa-ku, Tokyo, Japan. 03-5487-8488

CUSTOMER FOCUS CENTER: 1-800-521-6274



MC145145–2/D