Advance Information

Dual PLLs for 46/49 MHz Cordless Telephones CMOS

These devices are dual phase–locked loop frequency synthesizers intended for use primarily in 46/49 MHz cordless phones with up to 15 channels. These parts contain two mask–programmable counter ROMs for receive and transmit loops with two independent phase detect circuits. A common reference oscillator and reference divider are shared by the receive and transmit circuits.

Other features include a lock detect circuit for the transmit loop, illegal code default, a buffered oscillator output for mixing purposes in the system, and a 5.0 kHz tone output.

- Maximum Operating Frequency: 60 MHz @ V_{in} = 200 mV p-p
- Operating Temperature Range: 40 to + 75°C
- Operating Voltage Range: 2.5 to 5.5 V
- On-Chip Oscillator Circuit Supports External Crystal
- Operating Power Consumption: 3.0 mA @ 3.0 V
- · Lock Detect Signal
- Standby Mode for Power Savings: 1.5 mA @ 3.0 V
- Two Versions:
 - MC145168 Up to 15–Channel ROM with 4–Bit Binary Code Input for Channel Pair Selection
 - MC145169 Up to 15–Channel ROM with Serial Interface for Channel Pair Selection
- Custom 20–Channel ROM Versions of the MC145169 are Possible; Consult Factory

NOT RECOMMENDED FOR NEW DESIGNS; PRODUCT TO BE PHASED OUT. Closest equivalent is MC145162.

PIN ASSIGNMENTS

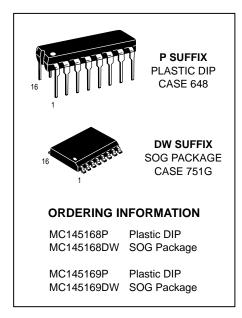
MC145168				MC145169			
OSC _{out}	1 ●	16	osc _{in}	osc _{out} [1 •	16	osc _{in}
MODE [2	15	D V _{DD}	MODE [2	15] V _{DD}
SB [3	14	□ f _{in1}	SB [3	14	f _{in1}
5 k [4	13	DPD1	5 k 🛚	4	13] PD1
D0 [5	12] ∨ _{SS}	DATA [5	12] V _{SS}
D1 [6	11	DPD2	CLK [6	11] PD2
D2 [7	10) <u>rp</u>	NC [7	10] LD
D3 [8	9	f _{in2}	ENB [8	9	f _{in2}

NC = NO CONNECTION

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

REV 2 1/98 TN98011400

MC145168 MC145169



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/

Mfax is a trademark of Motorola, Inc.

JAPAN: Nippon Motorola Ltd.: SPD, Strategic Planning Office, 141, 4–32–1 Nishi–Gotanda, Shagawa–ku, Tokyo, Japan. 03–5487–8488

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

CUSTOMER FOCUS CENTER: 1-800-521-6274



MC145168/D