

## Advance Information

# Dual PLLs for 46/49 MHz Cordless Telephones

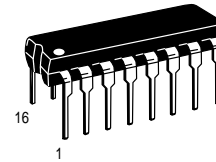
### CMOS

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.

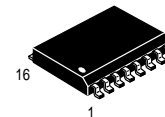
Other features include a lock detect circuit for the transmit loop, illegal code default, a buffered oscillator output for mixing purposes in the system, and a 5.0 kHz tone output.

- 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

**MC145168**  
**MC145169**



**P SUFFIX**  
PLASTIC DIP  
CASE 648



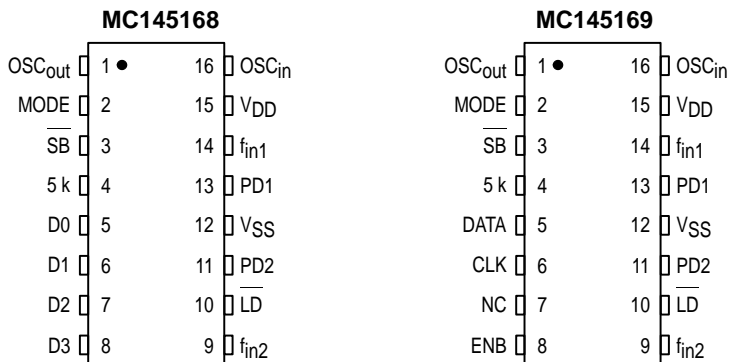
**DW SUFFIX**  
SOG PACKAGE  
CASE 751G

#### ORDERING INFORMATION

MC145168P	Plastic DIP
MC145168DW	SOG Package
MC145169P	Plastic DIP
MC145169DW	SOG Package


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

#### PIN ASSIGNMENTS



NC = NO CONNECTION

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

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  are registered trademarks of Motorola, Inc. Motorola, Inc. is an Equal Opportunity/Affirmative Action Employer.

Mfax is a trademark of Motorola, Inc.

**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,  
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