

### 13) IC SPECIFICATION

#### 1. LC7152NM: PLL IC

|                                                                                   |           |                                                      |
|-----------------------------------------------------------------------------------|-----------|------------------------------------------------------|
|  | No. 3889B | LC7152, 7152M, 7152NM, 7152KM                        |
|                                                                                   |           | <b>Universal Dual-PLL<br/>Frequency Synthesizers</b> |

#### Overview

The LC7152, 7152M, 7152NM, 7152KM are universal dual-PLL frequency synthesizers for use in cordless telephone applications in the USA, South Korea and Japan, and broadcast satellite (BS) tuners in the USA and Europe.

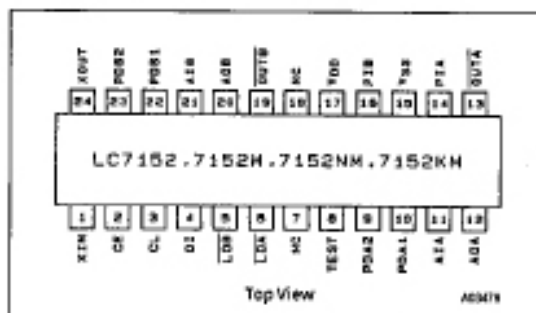
#### Features

- Dual charge pump for fast channel switching
- Digital lock detector for PLL lock status check with crystal oscillator precision
- Programmable reference frequency divider ideal for various applications
- LC7152NM with built-in power-on reset circuit version of the LC7152M
- LC7152KM with enhanced frequency characteristics version of the LC7152M

#### Functions

- 2-system PLL built-in (dual PLL)
- 16-bit programmable local-oscillator divider  
1.5 to 55MHz ( $V_{DD} = 2.0$  to 3.3V), LC7152KM: 55 to 80MHz ( $V_{DD} = 2.7$  to 3.3V)
- 14-bit programmable reference-frequency divider
- 320Hz to 640kHz reference frequency using a 10.24MHz crystal
- Digital lock detector
- Dual charge pump
- Amplifier built-in for an active LPF
- Serial transmission data input (CCB format)
- LC7152NM with power-on reset circuit (outputs  $\overline{OUTA}$  and  $\overline{OUTB}$  become open at power-on)
- 2.0 to 3.3V supply
- DIP24S and MFP24S packages

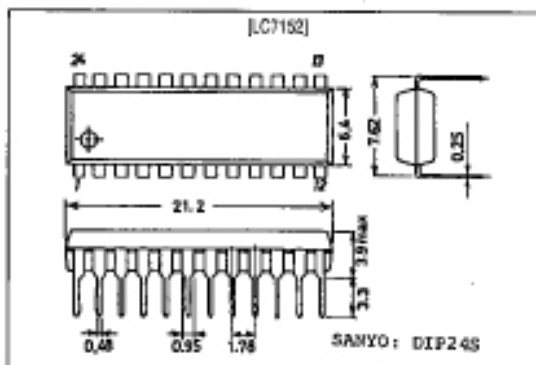
#### Pin Assignment



#### Package Dimensions

Unit: mm

##### 3067-DIP24S



##### 3112-MFP24S

