

LC7233 Single-Chip Microcontroller with Built-In LCD Driver and PLL Circuits

Overview

The LC7233 is a single-chip microcontroller for use in electronic tuning applications. It includes on chip both LCD drivers and a PLL circuit that can operate at up to 150 MHz. It features on-chip RAM and ROM, a programmable high-speed divider.

- &127; LCD driver
- &127; 6-bits keypad matrix scan output
- &127; Two 4-bits input ports
- &127; Two 4-bits input/output ports
- &127; 2-bit open-drain high voltage output
- &127; 23 mask-selectable output drivers
- &127; 150MHz phase-locked loop
- &127; Programmable high-speed divider
- &127; Program memory (ROM): 4 k words by 16 bits
- &127; Data memory (RAM): 256 4-bit digits
- &127; One 6-bit A/D converter
- &127; Two 8-bit D/A converters (PWM)
- &127; Voltage detection type reset circuit
- &127; PLL: 4.5 to 5.5 V
- &127; CPU: 3.5 to 5.5 V
- &127; RAM: 1.3 to 5.5 V
- &127; 64-pin QIP

General programming guidance of LC7233 devices with Seung Yong CPU SYSTEM 501/105.

The processors SYSTEM 501 (105) with label Seung Yong are customized mask-programmed CPU's on base of the LC 7233 CPU from Sanyo.

Those in the following specified possibilities apply only to CPU's with the above Seung Yong designation and not to others! (e.g. also not for the designation SY-002!) Programming are those pin 24, 25, 26 of the CPU.

The indicated bridges must be manufactured from the links indicated in each case to pin 18.

Pin 26 to 18	Pin 25 to 18	Pin 24 to 18	Description
Connect	Connect	Connect	40 Channels (CEPT) - 26.965MHz to 27.405MHz
Open	Open	Open	80/12 Channels (Germany) - 26.565MHz to 27.405MHz
Open	Connect	Open	40 Channels UK - 27.60125MHz to 27.99125MHz
Connect	Open	Open	120 Channels Polish - 26.510MHz to 27.850MHz
Connect	Connect	Open	240 Channels Polish - 26.060MHz to 28.750MHz
Open	Connect	Connect	400 Channels - 25.165MHz to 29.655MHz
Connect	Open	Connect	240 Channels - 26.065MHz to 28.755MHz

Consider please:

With 120 to 400 channel programming must be in the device absolutely the CH 9-Taste wired, because this becomes with many channel operation automatically the BAND selection button! With devices with ME key in place of CH 9 the key assignment must be still umgeloetet or converted according to the following list.

(devices starting from summer/autumn 1996 have in addition according to characterized solder joints on the inside the front plate circuit board, so that the change without removing the front screen is possible). Otherwise the ME key must be separated two-pole and be soldered on with thin wires to the PIN's 18 and 5 of the CPU.

Key assignment:

AM/FM: Pin 18 to 3	SCAN: Pin 21 to 3	Hi/Lo: Pin 21 to 4	DW: Pin 22 to 5
CH9: Pin 18 to 5	CH19: Pin 18 to 6	UP: Pin 20 to 5	DOWN: Pin 20 to 6
ME: Pin 17 to 4	LOCK: Pin 18 to 4	Light: Pin 22 to 4	

General programming guidance of LC7233 devices with Maycom CPU SYSTEM AH27

The processors SYSTEM AH27 with label Maycom are customized mask-programmed CPU's on base of the LC 7233 CPU from Sanyo.

Those in the following specified possibilities apply only to CPU's with the above Maycom designation and not to others!

AH27 Block Diagram

