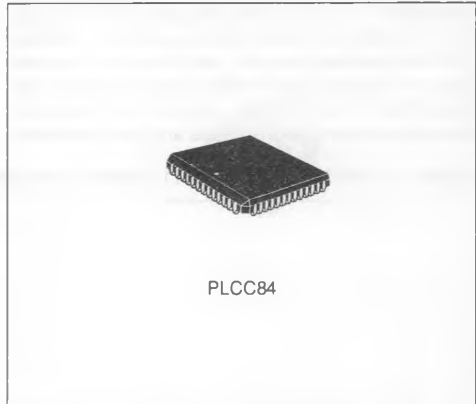


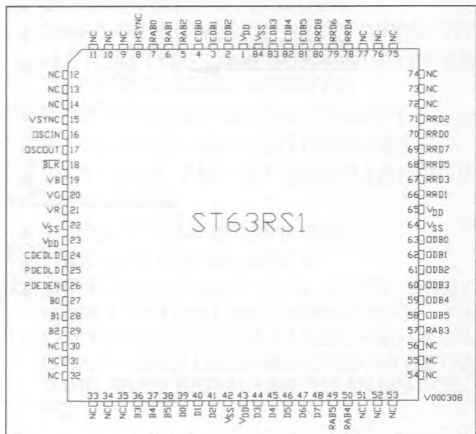
**8-BIT HCMOS ON-SCREEN DISPLAY ROMLESS MCU FOR TV APPLICATIONS**

**ADVANCE DATA**

- ROMLESS OSD MACROCELL OF ST63XX TV FAMILY DEVICES
- CAN BE CONNECTED TO THE ST63RS1 UNIVERSAL ST63 ROMLESS DEVICE TO IMPLEMENT CUSTOM CHARACTER SETS
- 1.5µ HCMOS TECHNOLOGY
- 4.5 TO 5.5 V SUPPLY OPERATING RANGE
- 5 LINES BY 15 COLUMNS DISPLAY CHARACTERS
- 64 CHARACTERS TYPES
- FOUR DIFFERENT CHARACTER HEIGHTS (18H, 36H, 54H, 72H), TWO AVAILABLE PER SCREEN, PROGRAMMABLE BY LINE.
- 6X9 DOTS CHARACTER FORMAT WITH ROUNDING FUNCTION
- EIGHT COLORS AVAILABLE, PROGRAMMABLE BY WORD
- 64 HORIZONTAL DISPLAY POSITIONS BY 2/FOSC AND 63 VERTICAL POSITIONS BY 4H
- 64 WORD SPACING POSITIONS FROM 2/FOSC TO 128/FOSC
- 63 LINE SPACING POSITIONS PROGRAMMABLE FROM 4 TO 252 H
- BACKGROUND SET AS NO BACKGROUND, SQUARE BACKGROUND OR FRINGE BACKGROUND MODES, PROGRAMMABLE BY WORD
- TWO OF EIGHT BACKGROUND COLORS AVAILABLE, PROGRAMMABLE BY WORD
- THREE CHARACTER DATA OUTPUT PINS (R, G, B) AND BLANK OUTPUT PIN
- DISPLAY DATA MAY BE PROGRAMMED ON OR OFF BY WORD OR ENTIRE SCREEN. ENTIRE SCREEN MAY BE BLANKED



**Figure 1 : ST63RS1 Pin Configuration.**



## GENERAL DESCRIPTION

The ST63RS1 romless On-screen display is a member of the 8-bit HCMOS ST63XX MCU family, a series of devices specially oriented to TV applications. This ST63RS1 macrocell is an HCMOS LSI character generator which enables display of characters and symbols on a TV screen. The character rounding function enhances the readability of the characters. The character set generated through the ST63RS1 is stored into two external memory EPROM devices (one for odd and one for even rows) in order to allow customized character configurations. The ST63RS1 receives horizontal and vertical synchronization signals and outputs screen

information via R, G, B and Blanking dedicated pins. These devices can be used in conjunction with the ST63RT1 universal romless device to implement a complete TV set control thanks to the dedicated functions integrated into the ST63RT1. The ST63RT1 on-chip OSD should be disabled when on-screen driving is left to the external OSD. Figure 2 shows the system configuration using the ST63RT1 connected to the ST63RS1 in which the universal romless chip is devoted to the TV set control (tuning, IR decoding, etc) while the OSD romless chip is devoted to on-screen characters generation.

Figure 2 : ST63RS1 - ST63RT1 System Description.

