S2S65P10

Multi Video Input Interlace / Progressive Conversion IC
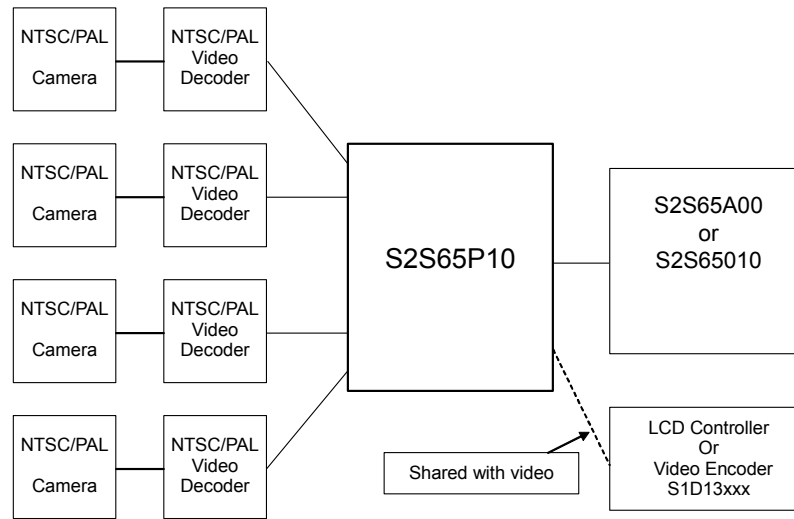
■ DESCRIPTION

S2S65P10 is an IC which converts the interlace signals into the progressive signals. Combining S2S65P10 with the image controller IC (S2S65A00) or the network camera controller IC (S1S65010) makes it possible to convert the digital signals sent from the NTSC/PAL video decoder into the JPEG format. S2S65P10 has a large-capacity SRAM built in, so it requires no external RAM. S2S65P10 has four channels of video input, and provides versatile screen outputs, including fixed, auto-scan, and 4-input-merge screen outputs. It has also the moving-object detection function built in. It interrupts the host CPU upon detecting a moving object, so it saves power consumption of the system.

■ FEATURES

- Video input
  4 ch. for input, out of which 1 ch. is shared with video output.
  8-bit input mode
  Complies with ITU-R BT.601 (4:2:2) / ITU-R BT.656
  Compatible with NTSC/PAL
  Compatible with interlace input/progressive input
- Video output
  2 ch. for input, out of which 1 ch. is shared with video input.
  8-bit output mode
  Complies with ITU-R BT.601 (4:2:2) / ITU-R BT.656
  Compatible with progressive output
  30fps@VGA
  4 - 1 Intelligent Image Switch function
  Compatible with 4-inputs-merged screen (QVGA x 4 = VGA)
- Host interface
  I^2C interface
  Interrupt by detecting moving object
- Image Processing
  Interlace/Progressive Conversion
  Conversion of aspect ratio
  Area sensor (for moving object detection)
- Camera control output/GPIO
- No external RAM required
- Guaranteed operating temperature: -40 - +100 °C
- Source Voltages: 1.8 V (core), 2.4 – 3.6 V (I/O)
- Package: QFP15-100pin (14 x 14 x 1.4 mm, 0.5 mm pin pitch)

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S2S65P10

■ BLOCK DIAGRAM

```
NTSC/PAL      NTSC/PAL
Camera        Video
              Decoder

NTSC/PAL      NTSC/PAL
Camera        Video                S2S65P10          S2S65A00
              Decoder                                   or
                                                     S2S65010
NTSC/PAL      NTSC/PAL
Camera        Video
              Decoder

NTSC/PAL      NTSC/PAL                              LCD Controller
Camera        Video                                     Or
              Decoder         Shared with video     Video Encoder
                                                       S1D13xxx
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■ COMBINING AS A CHIPSET WITH IMAGE CONTROLLER IC (S2S65A00) THAT SUPPORT DUAL CAMERA, AND WITH NETWORK CAMERA CONTROLLER IC (S1C65010)

S2S65P10, combining as a chipset with the image controller IC (S2S65A00) that supports dual camera, can connect with eight camera sets (each consisting of camera module + NTSC/PAL decoder) at the maximum. S2S65P10 can also connect with four camera sets (module + NTSC/PAL decoder) at the maximum by combining as a chipset with the network camera controller IC (S1S65010).

NOTICE:

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SEMICONDUCTOR OPERATIONS DIVISION

■ EPSON Electronic devices Website

http://www.epson.jp/device/semicon_e/

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