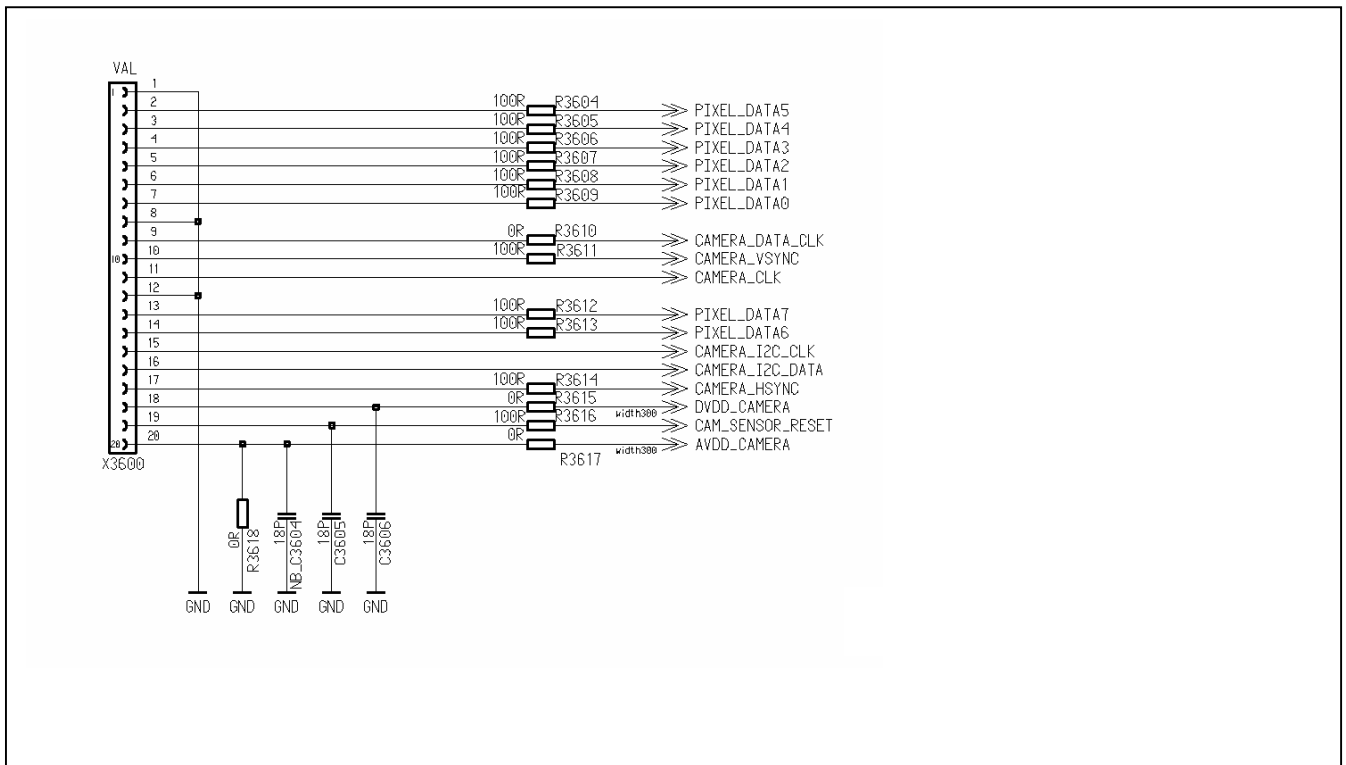# Camera

The camera module uses a colour sensor with a full VGA (640x480) resolution in landscape orientation. The module will deliver an 8Bit output signal which will be pre-processed by the EPSON S1D13716 graphic engine chip. Various settings like brightness, image stabilization, white balance can be done by using the I2C interface.

Camera Board-to-Board Connector

Camera – Display Interface Module

For the interface between S-GOLDlite, camera and display a graphics engine chip called S1D13716 from Epson is used. By using the SSC interface the S-GOLDlite communicates with this graphic engine chip. The S1D13716 has a second SSC interface to adapt the display. Over an I2C interface, provided by the S1D13716, the camera-module can be initialised; the picture-data output of the camera goes over a parallel 8-bit interface
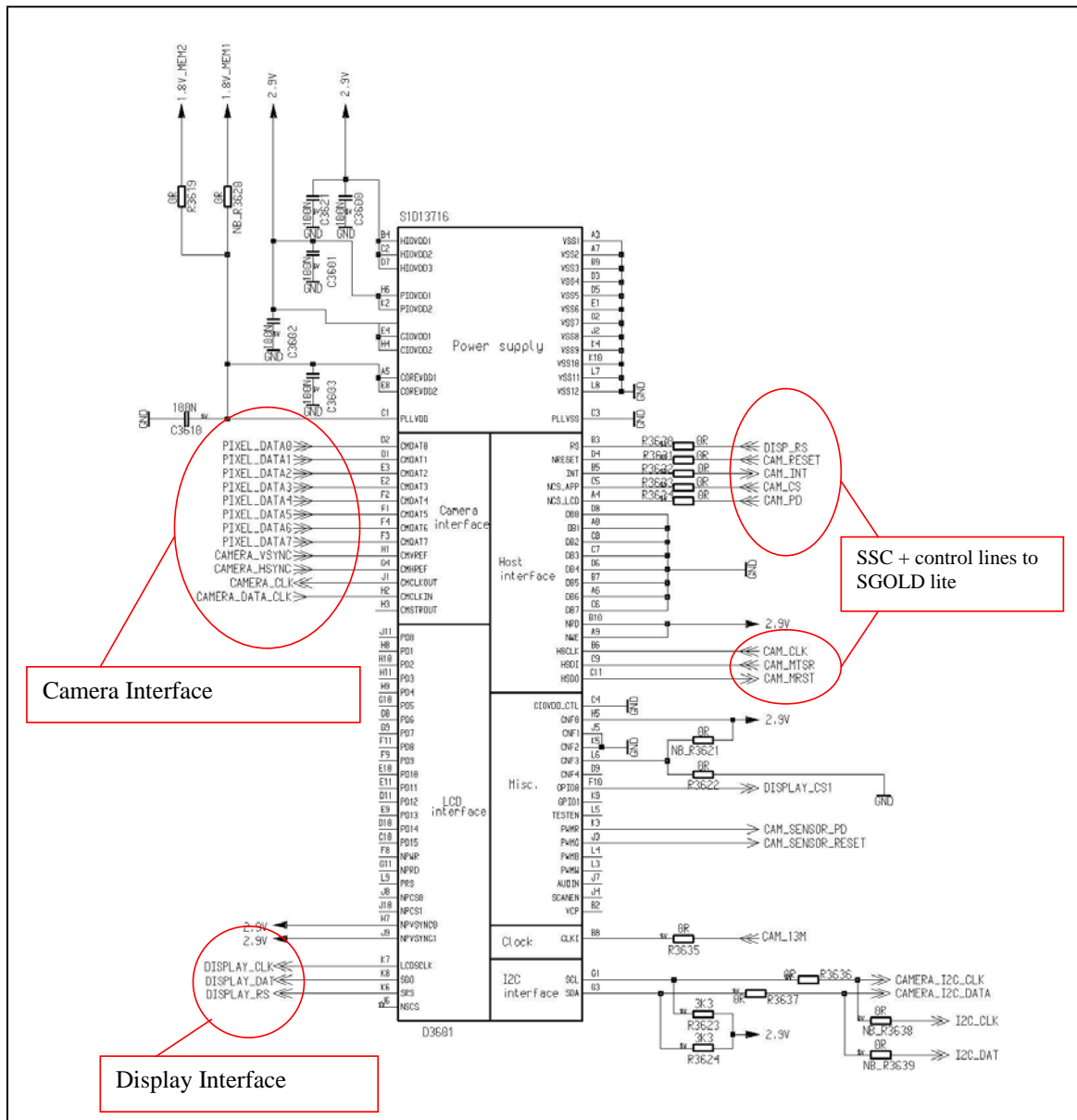There are three modes available:

a) Bypass mode:
    In this mode the S1D13716 is transparent regarding the display. The S-GOLDlite communicates "directly" with the display.

b) Camera View Mode:
    In this mode the S1D13716 transfers the picture – data from the camera directly to the display. A resizing and compressing engine is available to reduce the data amount to the display. So the preview can be done without using the SGOD performance.

c) Camera Capture Mode:

In this mode the picture – data from the camera is sent to the SGOLD. There are resizing and compressing engines available to reduce the data-stream to the SGOLD-lite

Voltage supply for Camera Asic