



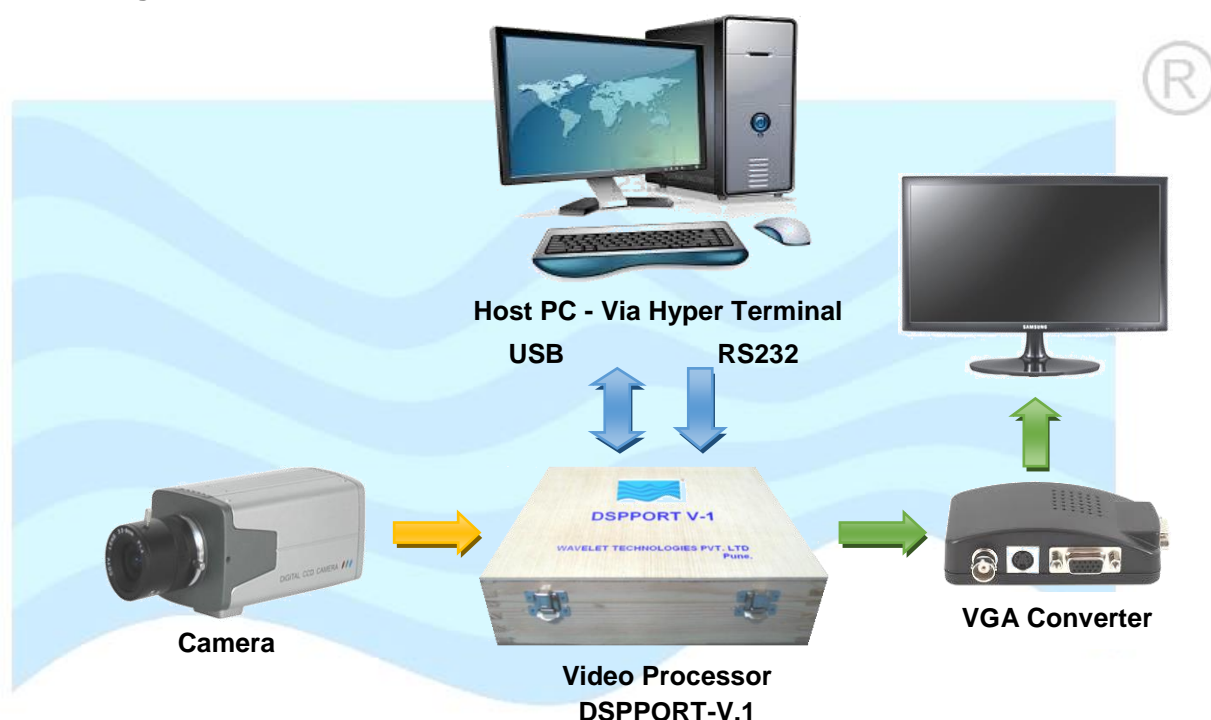
Wavelet Technologies

DIPLAB-1.1

Digital Image Processing Laboratory

Digital image processing laboratory (DIPLAB) is based on the DSPPORT-V.1 board having ADSP-BF561 dual core processor. The DSPPORT-V.1 board is used as Video Processor. DIPLAB-1.1 is very good teaching aid and helps students to understand different image processing concepts in a better way. JTAG USB Emulator is provided along with the DSPPORT-V.1 for developing and debugging the algorithms and also for burning the loader file into flash memory. User can communicate with DSPPORT-V.1 board on RS232 through HyperTerminal application running on Host PC using commands.

Block Diagram:



DIPLAB – 1.1 is capable of running different experiments as listed below:

1. Live video
2. Horizontal flip
3. Vertical flip
4. Negate
5. Gamma correction
6. Image statistics (Min, max, mean, mean square, variance, Std deviation, entropy)
7. Dilation on grey image
8. Erosion on grey image
9. Dilation on binary image
10. Erosion on binary image
11. Histogram
12. Histogram stretching
13. Histogram equalization
14. Median filter

WAVELET TECHNOLOGIES PRIVATE LIMITED

Unit No. 8, Plot No. 59, Amchi Colony, Survey No. 1, N.D.A. Road, Bawdhan, PUNE 411021, India.
www.waveletgroup.com, info@waveletgroup.com, Phone +91-20-22951983/4/5, Fax +91-20-22951904

15. Mean filter
16. Sharpening
17. Global threshold
18. Otsu threshold
19. Zoom (2x)
20. Edge detection (Sobel operator)
21. Region counting
22. FFT
23. Wavelet transform
24. Pseudo coloring

All the above functions listed in Video Processor come as library in this package. User can call the library functions by giving suitable inputs as mentioned in the manuals.

List of deliverables:

Hardware:

- DSPPORT-V.1 units – 1 No
- USB emulator – 1 No
- USB cable – 1 No
- RS232 cables – 1 No
- BNC to BNC cable – 1 No
- BNC to RCA cable – 1 No
- PAL camera – 1 No (Optional)
- VGA converter – 1 No (Optional)
- LCD monitor – 1 No (Optional)
- Host PC – 1 No (Optional)



Software:

- Video processing library with example images.
- Example programs.
- Déjà vu application software. (Optional) *
- HyperTerminal files (Only applicable to OS from Window Vista and above).

Documents:

- DIPLAB-1.1 User manual
- DSPPORT-V.1 Hardware user manual
- DSPPORT-V.1 Video Processor user manual
- Video Processing Library manual
- Déjà vu software User manual. * (As applicable, supplied with software only)

WAVELET TECHNOLOGIES PRIVATE LIMITED

Unit No. 8, Plot No. 59, Amchi Colony, Survey No. 1, N.D.A. Road, Bawdhan, PUNE 411021, India.
www.waveletgroup.com, info@waveletgroup.com, Phone +91-20-22951983/4/5, Fax +91-20-22951904