

Video & Audio Monitoring IP



Overview

Omnitek design products, IP and offer design consultancy services. We specialise in FPGA, electronics and software design, primarily in video processing applications.

Omnitek have a large library of IP Cores for video and audio monitoring. These IP cores can be used individually or in combination to provide FPGA solutions for video processing and display.

Omnitek IP Cores can be supplied as discrete blocks for inclusion in your own designs, as single chip solutions or Omnitek can provide a bespoke solution which can be tailored to your specific needs.

General Video Monitoring

- All common ANC decode and checking
- Status Logging
- RGB, YUV, ZYZ, Composite Gamut checking
- Automatic video standard detection and SMPTE 352 decode

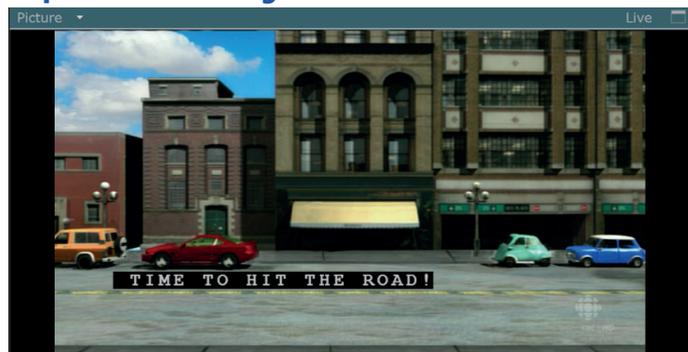
Timing Measurement

- Analogue reference timing
- SDI to SDI timing

Video Generator

- Colour Bars
- Zone Plates
- Uncompressed play-out
- Uncompressed capture

Caption Monitoring



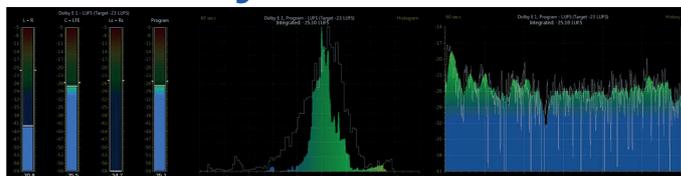
- Line 21 608 CC decode
- 608 and 708 CC ANC decode
- OP 47
- Teletext

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Audio Monitoring



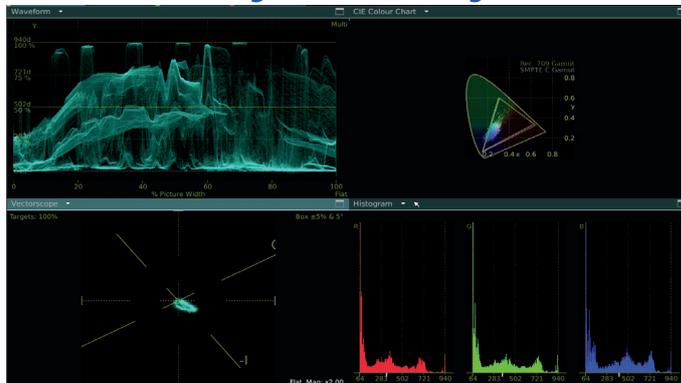
- PPM / VU ballistic calculation for all common monitoring standards
- Loudness monitoring
- Surround sound display
- Lissajous monitoring
- Sample rate conversion and super-sampling
- Dolby D&E decode

Physical Layer Monitoring



- SD/HD/3G Eye pattern
- Jitter measurement
- Physical Layer Status

Waveform / Histogram Monitoring



- Waveform: YUV, RGB, Composite, XYZ
- Vectorscope
- CIE colour chart
- Histogram
- Audio Video delay measurement

Picture Quality Analysis

- Real time PSNR signal to noise ratio calculation between two images

About Omnitek

Omnitek is a leading independent consultancy company specializing in the design of video products and IP for the broadcast, post-production, digital film, AV, medical, aerospace/defence, automotive and consumer industries. Since its foundation, Omnitek has completed many successful design projects for major equipment manufacturers throughout Europe, Asia, and the United States.

www.omnitek.tv