

1.4 MegaPixel Spectrally Tunable Imaging Radiometer (STiR 1.4) from Lumetrix



- 400-720nm
- 1nm accuracy
- 7nm bandpass
- High dynamic range
- >1E6 electronic dynamic range
- High spatial resolution
- Calculation of chromaticity and radiometric quantities as graphical layers

The Lumetrix **STiR 1.4 Spectrally Tunable Imaging Radiometer** combines a scientific grade 1.4 MPixel CCD camera with a Liquid Crystal Tunable Filter (LCTF), calibration and software. This novel imaging system enables spectroradiometric measurement capabilities in line with today's spot spectroradiometers with 1400 x 1040 image resolution. The system offers the possibility of much better chromaticity measurements than has been possible with imaging tristimulus colorimeters.

At full resolution, the STiR 1.4MP is sensitive enough to measure luminance and chromaticity of today's LED and fluorescent backlit displays below 1 cd/m² accurately and easily. Furthermore, the sensitivity can be increased by up to 64 times by selecting a lower imager spatial resolution (CCD binning).

Applications

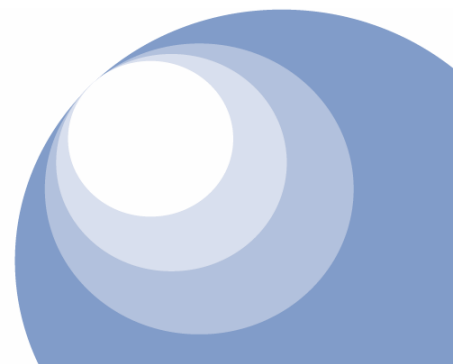
- Electronic displays: LCD, PDP, ELP, OLED, CRT
- Digital Projectors
- Automotive Interior Displays and Indicators
- Avionic Displays
- Light sources, Lamps and Luminaires LEDs, OLEDs

Preliminary Specifications

See next page

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| STiR 1.4 | |
|---|--|
| Image Resolution (binning) | 1392 x 1040 pixels (1 x 1) |
| | 696 x 520 pixels (2 x 2) |
| | 348 x 260 pixels (4 x 4) |
| | 174 x 130 pixels (8 x 8) |
| Spectral Specifications | |
| Range | 400-720 nm |
| Setting Accuracy | 1 nm |
| Bandpass Resolution | 7 nm |
| Stray Light | <1E-3 |
| Luminance Accuracy | 3% |
| Radiance Specifications (at full resolution) | |
| Noise (typical 20 pixel diameter aperture) | 4.0E-12 W/cm ² sr nm |
| Max Radiance (excluding ND or iris factors) | 1.1E-06 W/cm ² sr nm |
| Scanning Speed | variable from 2 sec to 30 sec per wavelength |

Please contact us for further details.

