



CMS : MUTLI-SPECTRAL CAMERA

CAMERA IDENTIFICATION

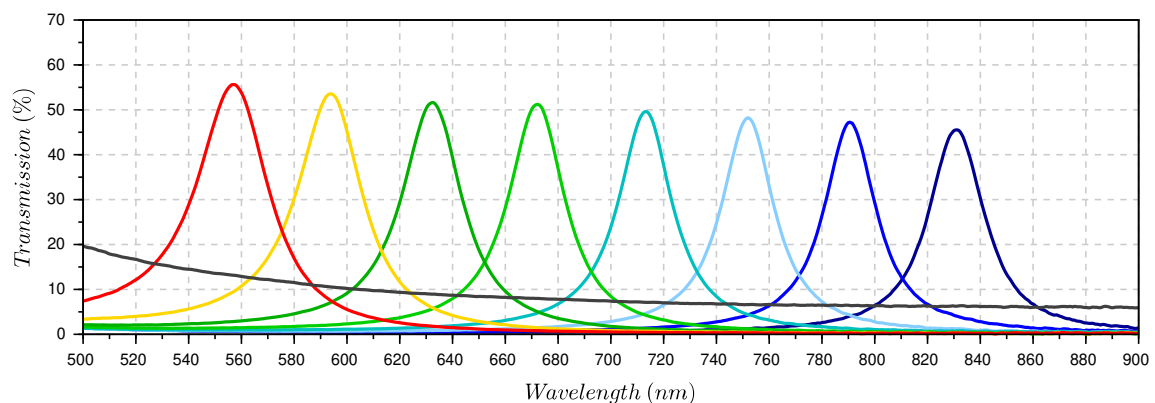
Designation	CMS-V1-C-EVR1M-USB3
Technology	COLOR-SHADES
S/N	CMS19070105

CMS SENSOR SPECIFICATIONS

Array type	CMOS (Si)
Spectral band	400 to 1000nm
Resolution	1250(H) x 1024(V)
Pixel pitch	5.3 μ m

FILTER SPECIFICATIONS

Macro-pixel size	3x3 bands		
Wavelength range	550 to 830 nm typical		
Type of pixel	8 colors (narrow bands) + 1 B&W		
Band 1	λ_c : 831nm	FWHM : 26nm	Tmax : 46%
Band 2	λ_c : 791nm	FWHM : 24nm	Tmax : 47%
Band 3	λ_c : 752nm	FWHM : 24nm	Tmax : 48%
Band 4	λ_c : 713nm	FWHM : 25nm	Tmax : 50%
Band 5	λ_c : 672nm	FWHM : 26nm	Tmax : 51%
Band 6	λ_c : 632nm	FWHM : 28nm	Tmax : 52%
Band 7	λ_c : 593nm	FWHM : 30nm	Tmax : 53%
Band 8	λ_c : 557nm	FWHM : 33nm	Tmax : 56%
Band 9	Neutral density : Tmean = 9% over [500-900]nm		



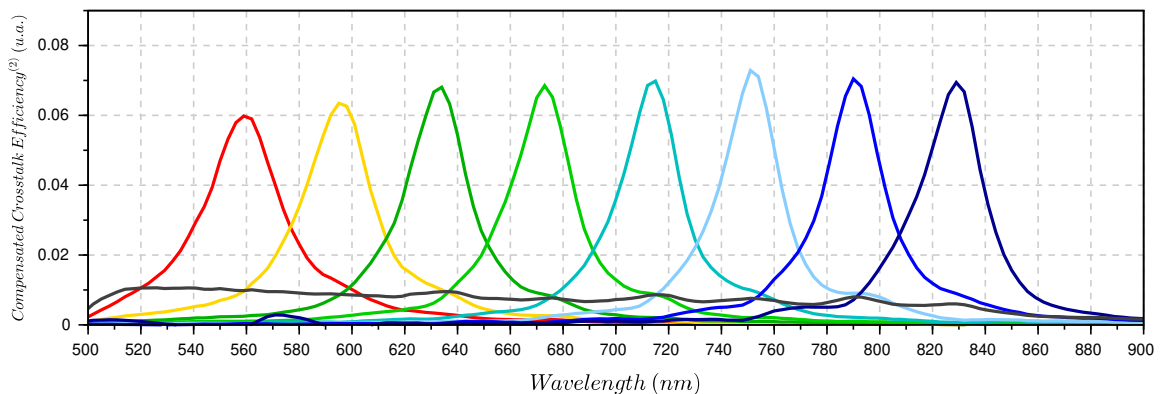
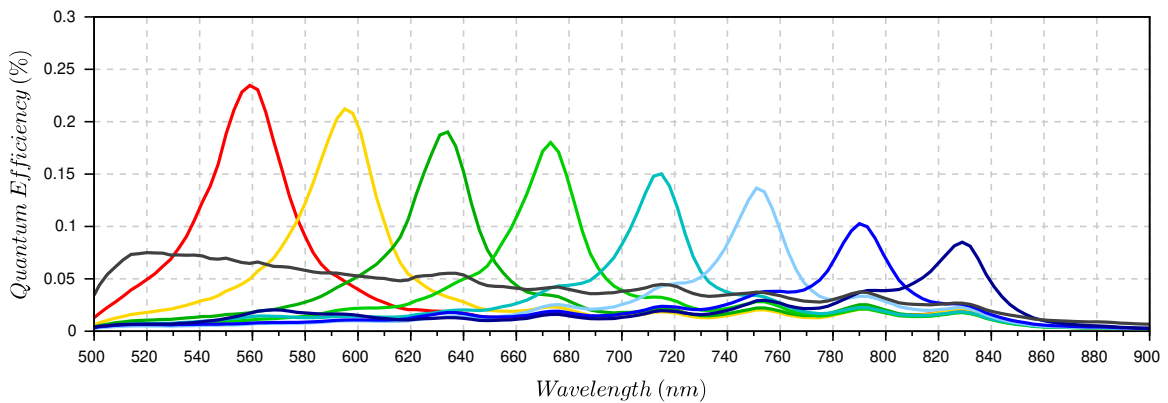


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MULTISPECTRAL SENSOR SPECIFICATIONS

Macro-pixel size	3x3 bands		
Wavelength range	550 to 830 nm typical		
Type of pixel	8 colors (narrow bands) + 1 B&W		
Band 1	λ_c : 559nm	FWHM :35nm	QE max : 24%
Band 2	λ_c : 595nm	FWHM :32nm	QE max : 21%
Band 3	λ_c : 632nm	FWHM :29nm	QE max : 19%
Band 4	λ_c : 672nm	FWHM :29nm	QE max : 18%
Band 5	λ_c : 714nm	FWHM :28nm	QE max : 15%
Band 6	λ_c : 751nm	FWHM :27nm	QE max : 14%
Band 7	λ_c : 790nm	FWHM :28nm	QE max : 10%
Band 8	λ_c : 828nm	FWHM :29nm	QE max : 8%
Band 9	Neutral density : QE mean = 4% over [500-900]nm		
Pixel operability ⁽¹⁾	≥99.85%		

(1) Deads pixels : among which 0.10% used for alignment purpose in the 4 corners of the picture.



(2) The CCE is extracted from the SILIOS post processing method for crosstalk correction (see Post-processing method for crosstalk reduction in multispectral data and images).



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CAMERA SPECIFICATIONS

Optical interface	CS-mount (C-mount compatible with additionnal C-ring)
Resolution (raw picture)	1280 (H) x 1024 (V)
Resolution (spectral pictures)	426 (H) x 339 (V)
Maximum frame rate	60 Hz
Exposure time range	10 μ s to 2 s
ADC	10-bits
Camera control	USB 3.0
Digital output	10-bits USB 3.0
Power supply	USB 3.0
Dimension (W x H x L)	56 x 56 x 22 mm ³
Weight camera head	75 g