

Long Range Micro

Rugged HD Zoom

Ultra-Compact Color Camera



Image sensor	1/3-type CMOS	
Image sensor (Number of effective pixels)	Approx. 4.08 Megapixels	
Signal system	1080p/60, 1080p/59.94, 1080p/50, 1080p/30, 1080p/29.97, 1080p/25, 1080i/60, 1080i/59.94, 1080i/50, 720p/60, 720p/59.94, 720p/50, 720p/30, 720p/29.97, 720p/25, NTSC*1, PAL*1	
Min. illumination (50%)	High sensitivity mode	Color: 0.5 lx (F1.8, AGC on, 1/30 s)
S/N ratio	More than 50 dB	
Gain	Auto/Manual 0 dB to 50.0dB (0 to 28 steps +2 step/ total 15 steps) Max. Gain Limit 10.7 dB to 50.0 dB (6 to 28 steps +2 tep/ total 12 steps)	
Horizontal viewing angle	1080p mode	58.2° (wide end) to 6.9° (tele end)
	720p mode	58.2° (wide end) to 6.9° (tele end)
Lens	10x optical zoom f= 3.3mm (wide) to 33.0mm (tele) F/1.8 to F/3.4	
Exposure compensation	-12dB to +12dB (total 13 steps)	
Aperture control	16 steps	
White balance	ATW 1(Narrow), ATW 2(Wide), One-push, Manual Paint (B/R)	
De-fog	Yes	
HLC	Yes	
Noise reduction	Yes (2D/3D, 6 steps)	
Progressive scan mode	Yes	
Image stabilization	Yes	
Stable Zoom	Yes	
Digital output	Yes	
Spherical privacy zone masking	Yes	
Motion detection	Yes	
Slow AE response	Yes	
Picture effects	YES (Black & White)	
Picture freeze	Yes	
Slow shutter	Yes	
Temperature readout	Yes	
Title display	20 characters/line, max. 12 lines	
Camera mode display	Yes	
Video output	HD	Digital LVDS
	SD	CVBS
Camera control interface	VISCA protocol VISCO protocol is a trade mark of SONY corporation	
Power requirements	8 VDC ... +12 VDC	
Power consumption	Approx. 3W	
Operating temperature	-5°C to +60°C (23°F to 140°F)	
Storage temperature	-20°C to +60°C (-4°F to 140 °F)	
Operating humidity	20% to 80%, no condensation	
Storage humidity	20% to 90%, no condensation	
Dimensions (W x H x D)	42 mm x 52 mm x 69 mm	
Mass	250g	
Connectors	Power & Communication, LVDS output	
Mechanical Stability (design goal)	Vibration	MIL-STD 810 G 514.6 Procedure III
	Shock	MIL-STD 810 G 516.6 Procedure I
EMI (design goal)	RE	MIL-STD-461G RE102-4
	CE	MIL-STD-461G CE102-1 Basic Curve
	RS	MIL-STD-461G RS 103
	Power	MIL-STD 704F
	ESD	DO-160G § 25, CAT A
Order number	tdb (XXXXX with rugged housing) XXX-XXXX (XXXXX rugged HD zoom camera module without housing)	

LRE RS Mini Version A 01 – 29.01.2019 DRAFT



Headquarters

Kappa optronics GmbH | 37130 Gleichen | Germany
info@kappa-optronics.com | www.kappa-optronics.com

Kappa optronics Inc. | USA
contact@kappa-optronics.com

realize visions .