NanoCam3D Mk.1

Specification

Change Log

Datum	Version	Comments
2017-03-05	1.0	Initial Version
2017-03-12	1.1	Added Auto Exposure Modes
2017-04-17	1.2	Minor corrections

NanoCam3D Mk.1 Specification

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SUBJECT TO CHANGE WITHOUT NOTICE

1. Mechanical Properties

Property	Value	Comment
Product name	NanoCam3D	
Model designation	Mk.1	
Size	75 mm x 11 mm	
Weight	7g	Without externals wires.

2. Electrical Properties

Property	Value	Comment
Ingress Protection Marking	IP00	Installation of sensor into a suitable protective case or protection by heat-shrink tubing recommended
Appliance class	III	 Use only with Separated/Safety Extra-Low Voltage (SELV) power sources
Power supply	+3V to +16V DC	Can be used with 1s- to 3s-LiPo batteries. Includes Reverse-Polarity Protection.
Current Consumption	210 mA @ 3.8 V 115 mA @ 7.6 V 85 mA @ 11.4 V	
Sensor Technology	CMOS	Electronic Rolling Shutter
Video norm	PAL, NTSC	Electronically switchable
PAL output resolution	720 x 576	Electronically switchable
NTSC output resolution	720 x 487	
SNR	46dB	
Pixel Dynamic range	74.8dB	
Video outputs	1 x CVBS	AC-coupled
Supported 3D-formats	Squeezed Side-by-Side, Field-Sequential	Electronically switchable
Auto-Exposure Settings	Average Brightness Weighted Brightness Adaptive AE (Highlights) Adaptive AE (Lowlights)	Electronically switchable Default: Average Brightness
Electrical Connectors	Molex PicoBlade™	

3. Optical Properties

Property	Value	Comment
Interaxial Lens Distance	64mm	Equivalent to avetage human IPD
Lens mount	M7 x 0.35	
Infrared filter	Built-in	Camera lenses equipped with IR-cut filter.
Focal distance	2.0mm	Other focal distances on request.

4. Special Features

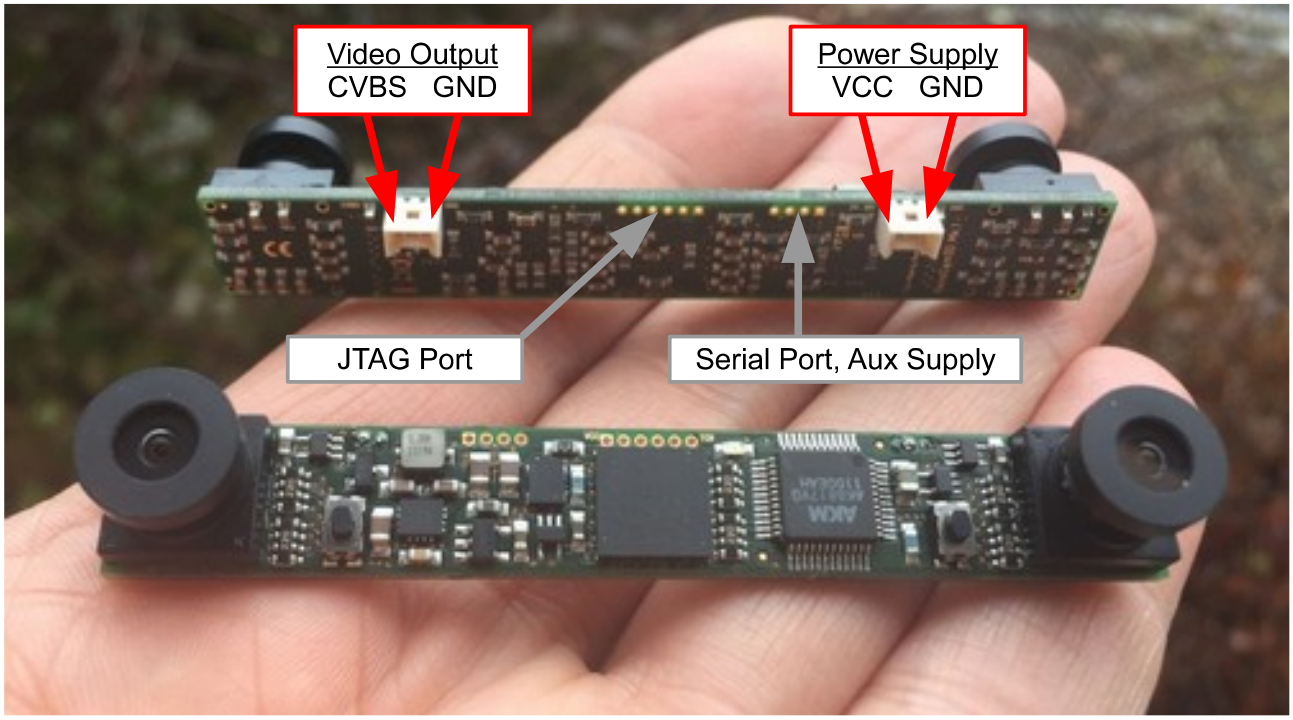
Property	Value	Comment
Adjustment features	Sensor vertical alignment	Necessary for optimal 3D-perception.
	Horizontal Adjustment	Horizontal shift (both directions) for compensation of misalignment caused by video goggle's imperfections[1].
	All adjustment settings are non-volatile (saved in FPGA memory).	
Remote FW update	Via USB2JTAG programmer	Separately available.

5. Supported Video Goggles

Manufacturer	Model	3D-mode	Remarks
Zeiss	Cinemizer, Cinemizer Plus, Cinemizer OLED	Squeezed Side-by-Side	Fully supported
FatShark	Dominator HD V1, V2, V3	Squeezed Side-by-Side	Fully supported
FatShark	Dominator V3	Squeezed Side-by-Side	Fully supported[2]
FatShark	Attitude V3	Field-Sequential	Fully supported[3]
HeadPlay	HEADPLAY Personal Cinema System	Field-Sequential	Fully supported with firmware 1.20w
AOMWAY	Commander V1	Squeezed Side-by-Side	Fully supported[4]

1 http://www.rcgroups.com/forums/showthread.php?t=2472675&page=141#post33357297
2 16:9 aspect ratio video goggle. 3D image horizontally stretched.
3 NTSC video norm recommened due to goggle's limited 640*480 display resolution.
4 16:9 aspect ratio video goggle. 3D image horizontally stretched.

6. Inputs and Outputs



7. Manufacturer Information and Technical Support

TMG - Ingenieurbüro UG (haftungsbeschränkt)	Sales tax ID: DE294861035
Römerstr. 14	WEEE ID: DE 55557702
89077 Ulm	Internet: www.themissinggear.eu
GERMANY	Contact: info@themissinggear.eu

Please feel free to contact us for technical assistance or other questions about the product.