

# ATOM one Family



All ATOM cameras have a build in CCU (Color Control Unit) supporting the following features:

- Low latency (< 100 µs/microseconds)
- Defect Pixel Correction (auto/manual)
- Black level, White Level, Master Black
- White balance / Auto white balance
- Flare compensation
- Lens shading correction
- High quality color interpolation (debayer)
- Color Matrix / Color correction
- Color temperature settings/profiles
- Multi-matrix Color Correction (12/24/32 angles)
- RGB LUT programmable
- Knee function
- Denoise filter
- Detail filter
- Color post processing (lumi, contr, sat, hue)
- SDI range adjustable (black/white)
- Mirror/Flip
- Image statistics (white balance, exposure)
- Auto Exposure / Auto Gain

Documentation and software can be found at the following link:



<https://gitlab.com/dreamchip/provideo-downloads>

Further technical and commercial information can be found at:

[www.atom-one.de](http://www.atom-one.de)



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## Contact



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- | ATOM one mini                                                                                                  | ATOM one mini AIR                                                                                                 | ATOM one mini IP67                                                                           | ATOM one                                                                                                                         | ATOM one Industrial                                                                                  | ATOM one 4K mini 7                                                                              | ATOM one 4K mini 11                                                                                   | ATOM one 4K mini 16                                                                                                      |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Small SDI broadcast camera</li> <li>Ultra wide angle support</li> </ul> | <ul style="list-style-type: none"> <li>Smallest SDI broadcast camera</li> <li>Ultra wide angle support</li> </ul> | <ul style="list-style-type: none"> <li>Smallest SDI broadcast waterproofed camera</li> </ul> | <ul style="list-style-type: none"> <li>Smallest global shutter SDI broadcast camera</li> <li>High Dynamic Range (HDR)</li> </ul> | <ul style="list-style-type: none"> <li>Single coax cable SDI camera</li> <li>Tough, IP69K</li> </ul> | <ul style="list-style-type: none"> <li>Smallest UHD camera</li> <li>Ultra wide angle</li> </ul> | <ul style="list-style-type: none"> <li>Smallest 4K 2/3" camera</li> <li>TV lens compatible</li> </ul> | <ul style="list-style-type: none"> <li>Smallest 4K 1" global shutter camera</li> <li>High Dynamic Range (HDR)</li> </ul> |



	Item no.: DCT0001	Item no.: DCT0002	Item no.: DCT0008	Item no.: DCT0004	Item no.: DCT0003	Item no.: DCT0005	Item no.: DCT0006	Item no.: DCT0007	
Overview	Resolution	Full HD 1920 x 1080	Full HD 1920 x 1080	Full HD 1920 x 1080	Full HD 1920x1080	UHD 3864 x 2196	4K 4096 x 2160	4K 4096 x 2160	
	Mount	S Mount (M12)	S Mount (M12)	S Mount (M12)	C Mount	S Mount (M12)	C Mount/CS Mount/S Mount	C Mount + CS Mount	
	Size	<b>30mm x 30mm x 31mm</b>	<b>30mm x 30mm x 18mm</b>	32mm x 32mm x 51mm	32mm x 32mm x 71mm	50mm x 55mm x 89mm	<b>36mm x 36mm x 79mm</b>	<b>36mm x 36mm x 79mm</b>	<b>36mm x 36mm x 79mm</b>
	Weight	45 g	25 g	115 g	100 g	<b>IP69K 530g</b>	122 g	123 g	123 g
	Mount points	2x 1/4" 5x M3	10x M3	3x 1/4" 5x M3	2x 1/4" 6x M3	4x M6	2x 1/4" 5x M3	2x 1/4" 5x M3	2x 1/4" 5x M3
	Microphone	Mono Mic	Mono Mic	Mono Mic	No	No	Stereo Mic	Stereo Mic	Stereo Mic
	Sensor	Sensor Type	1 / 2.5"	1 / 2.5"	1 / 2.5"	1 / 1.23"	1 / 2.5"	1/2.5"	<b>2/3"</b>
Pixel size		3.24 um	3.24 um	3.24 um	5.86 um	3.24 um	1.62 um	2.4 um	3.45 um
Diameter		7.2 mm	7.2 mm	7.2 mm	13.1 mm	7.2 mm	7.2 mm	11 mm	16.1 mm
Filter		IR cut / no filter	IR cut / no filter	IR cut / no filter	IR cut	IR cut / no filter	IR cut	IR cut	IR cut
Shutter type		Rolling	Rolling	Rolling	<b>Global</b>	Rolling	Rolling	Rolling	<b>Global</b>
Dynamic		10 bit / 57dB	10 bit / 57dB	10 bit / 57dB	<b>12 bit / 72 dB</b>	10 bit / 57dB	10 bit / 57dB	10 bit / 57dB	<b>12 bit / 72 dB</b>
Sensitivity ISO		Analog 30 - 675 / Digital 3200	Analog 30 - 675 / Digital 3200	Analog 30 - 675 / Digital 3200	Analog 125 - 2000 / Digital 12800	Analog 30 - 675 / Digital 3200	Analog 30 - 675 / Digital 3200	Analog 45 - 1013 / Digital 6400	Analog 115 - 1840 / Digital 12800
Sensitivity 2000 Lx 50Hz		F2.4	F2.4	F2.4	F11	F2.4	F2.4	F8	F6.7
Maxium FOV (H)		<b>125° @ 2.7mm lens</b>	<b>125° @ 2.7mm lens</b>	89° @ 3.4 mm lens	89° @ 6mm lens	85° @ 3.4mm lens	<b>125° @ 2.7mm lens</b>	76° @ 6mm lens	<b>98° @ 6mm lens</b>
Electric		SDI output	1x HD-BNC/3G SDI	1x HD-BNC/3G SDI	1x HD-BNC/3G SDI	2x HD-BNC/3G SDI	1x HD-BNC/3G SDI	2x HD-BNC/12G SDI	2x HD-BNC/12G SDI
	Control	RS485	RS485	RS485	RS485 / RS422 / UART 3.3V	RS485	RS485 / RS422 / UART 3.3V	RS485 / RS422 / UART 3.3V	RS485 / RS422 / UART 3.3V
	Genlock	No	No	No	Trilevel Sync in / out	No	Trilevel Sync in / out	Trilevel Sync in / out	Trilevel Sync in / out
	Embedded time code	yes	yes	yes	yes	yes	yes	yes	yes
	Voltage range	5V-36V	5V-36V	5V-36V	6V-36V	24V	9V-36V	9V-36V	9V-36V
	Power	3.4W 270mA@12V	3.4W 270mA@12V	3.4W 270mA@12V	3.4W 280mA@12V	5W 250mA@24-36V	6.5W 540mA@12V	7.6W 630mA@12V	8.3W 680mA@12V
	Power Supply	6-36V	6-36V	6-36V	6-36V	6V-36V	9V-36V	9V-36V	9V-36V
Camera Features	Cooling	Passive	Passive	Passive	Passive	Passive	Active	Active	Active
	Color Control Unit	yes	yes	yes	yes	yes	yes	yes	yes
	4K to 2K down-scale with oversampling	no	no	no	no	no	yes	yes	yes
	Independent LUT	yes	yes	yes	yes	yes	yes	yes	yes
Video Formats	10 bitYUV422	yes	yes	yes	yes	yes	yes	yes	
	RAW	no	no	no	yes	no	yes	yes	
	1920 x1080 Full HD Framerates	23.98, 24, 25, 29.97, 30, 50, 50.94, 60,50i 59.94i, 60i					no (can downscale to 1080 i/p)		
	3840 x 2160 UHD Framerates	no					23.98, 24, 25, 29.97, 30, 48, 47.96, 50,59.94, 60,50i 59.94i, 60i		
4096 x 2160 4K Framerates	no					23.98, 24, 25, 29.97, 30, 48, 47.96, 50,59.94, 60,50i 59.94i, 60i			