MosaicCORE™ C204SP

Seek thermal

TECHNICAL SUMMARY

200 x 150 RESOLUTION

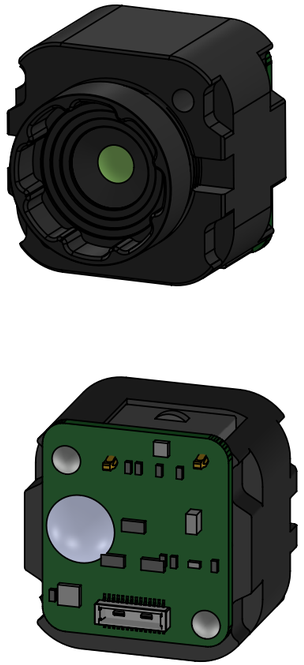
Specifications	Description	
Microbolometer	Uncooled Vanadium Oxide	
Pixel Pitch	12 Microns	
Spectral Response	7.8 - 14 Microns	
Sensor Resolution (Array Format)	200 (h) x 150 (v); 30,000 pixels	
Frame Rate	<9 Hz	
Imaging Range[1]	-40°C to 330°C	
Sensor Sensitivity	65 mK (typical), <100 mK (max) @ 25°C	
Non-Uniformity Correction (NUC)	Automatic NUC (with shutter)	
Video Output Interfaces	USB	
Supply Voltage	3.3V to 5.0V	
Power: Core Only	<50mW	
Power: Core + Interface Board	300mW	
Output Frame Formats		
Supported OS	Linux / Windows SDK	Android SDK
Partially Processed	16-bit corrected or pre AGC	16-bit filtered pre AGC
Colorized Display	ARGB888, RGB565, AYUV, or YUY2	32-bit ARGB post colorization in the Bitmap image
B/W Display	8-bit Greyscale	NA
Tempeature	32-bit floating point or 16-bit fixed point thermography	16-bit fixed point thermography
Optics & Mechanical		
Focal Length	**4.0mm**	
F-number (focal length/aperture)	f/1.0	
Spatial Resolution (IFOV, center)	3.0	
HFOV[4]	35°	
VFOV[4]	26°	
Detection Range[2]	333m	
Recognition Range[2]	83m	
Identification Range[2]	48m	
Distance to Spot Ratio	56:1	
Ingress Protection	IP67	
Core Dimensions (L x W x H)	20 x 20 x 21mm	
Core Weight	12 g	
Focus	Fixed	
Lens Material	Chalcogenide	
Thermography		
Temperature Calibration	Calibrated Output in °C, °F, K	
Temperature Accuracy[1,3]	The greater of ±5°C or 5% between 5°C to 140°C scene temperatures Typical performance of ±10% between 140°C to 330°C scene temperatures Contact your sales rep for higher temperature accuracy up to 330°C and beyond	
Environmental		
Operating Temperature Range	-10°C to 60°C Contact your sales rep for higher operating temperature ranges	
Storage Temperature Range	-40°C to 80°C	
Solar Protection	Yes	
Humidity	10%~95%RH, non-condensing	
Regulatory	ROHS, WEEE, REACH	

1. Specified at nominal 25°C ambient operating temperature and nominal measurement distance of 12 inches. Temperature reported is Center Spot temperature, which is an average of the center 36 pixels.
   Contact Seek Thermal for performance at other nominal operating temperatures and measurement distances.
2. Based on Johnson Criteria.
3. Factory default emissivity is set to 0.97. Emissivity is adjustable using the SDK. See data sheet for more information.

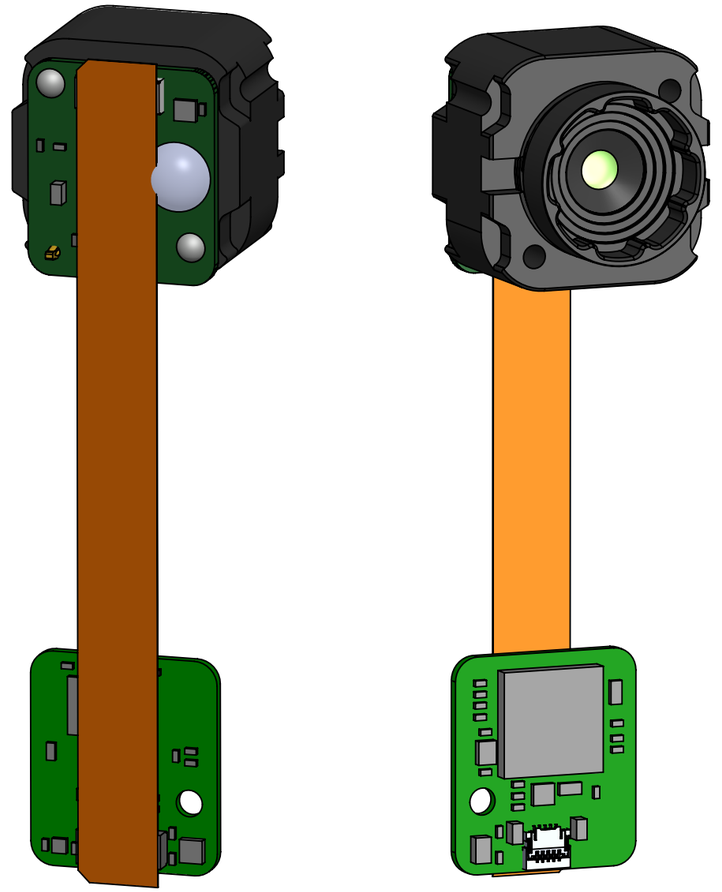
Specifications and undocumented specifications are subject to change without notice. For the most up-to-date specifications, visit thermal.com/oem

THIS DRAWING COVERS
THE FOLLOWING SKUS:
C2*4*
C3*4*
S2*4*
S3*4*

NO COPROCESSOR BOARD



"P" OPTION WITH COPROCESSOR BOARD



NOTES:

1. SEE 3D CAD FILE FOR FULL GEOMETRY.

2. KEEPOUT FOR SHUTTER CLEARANCE.

3. LENS ADHESIVE DOES NOT EXTEND ABOVE FRONT FACE.

4. THIS DESIGN IS CAPABLE OF BEING IP67 WHEN USED WITH APPROPRIATE SEALING DESIGN. SEE MOSAIC DATASHEET.

5. ADHESIVE BUMP PRESENT ON <9Hz CORES.

6. PROCESSOR BOARD AND FLEX INCLUDED WITH "P" OPTION CORES.

MATERIAL	SEE NOTES	DRAWN	DLM 27MAR2019
FINISH	SEE NOTES	APPR.	
UNLESS OTHERWISE SPECIFIED:		THIRD ANGLE PROJECTION	
DIMENSIONS ARE IN MM [IN] IN ACCORDANCE WITH ASME Y14.5-2009			
GENERAL TOLERANCES 0.5 TO 6 ±0.1 [.004] > 6 TO 30 ±0.2 [.008] > 30 TO 120 ±0.2 [.008] >120 TO 400 ±0.3 [.012] ANGLES ±1°			

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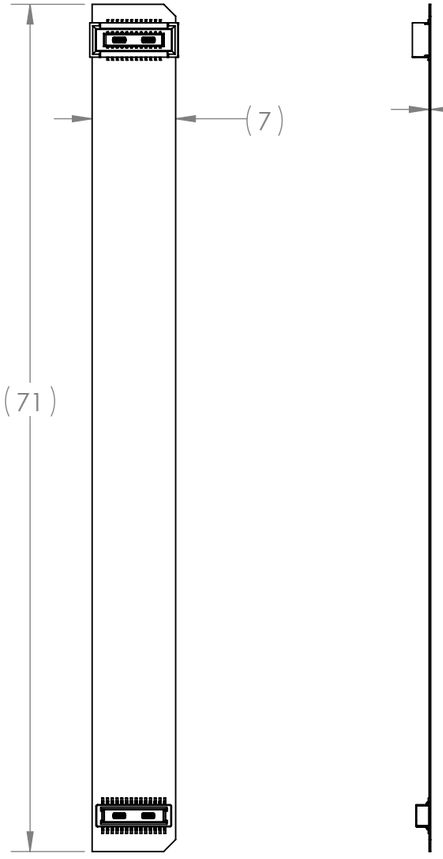
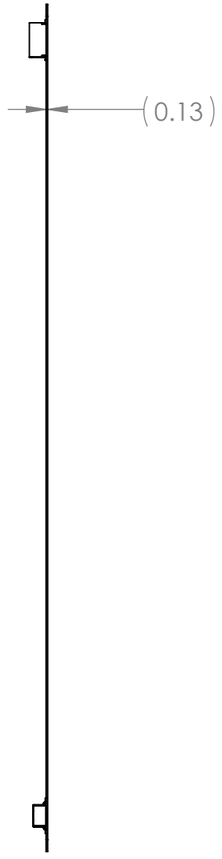
Seek™ thermal

TITLE: DOC, INTERFACE CONTROL DRAWING, MECH, 4.0MM MOSAIC

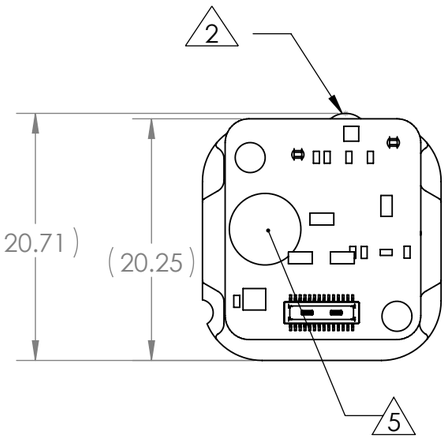
SIZE	DWG. NO.	REV
B	DOC_243	3

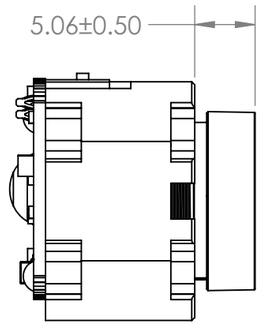
SCALE: 2:1 SHEET 1 OF 2

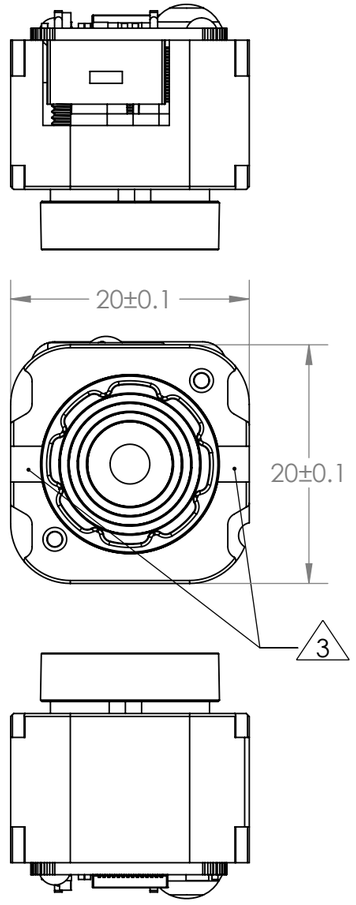


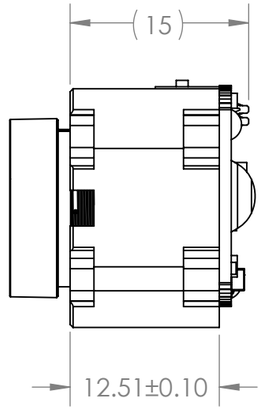


FLEX CABLE

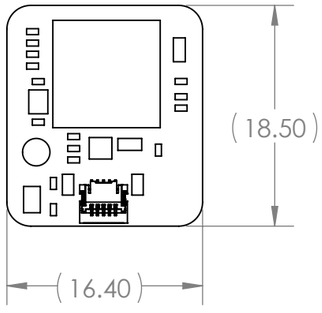


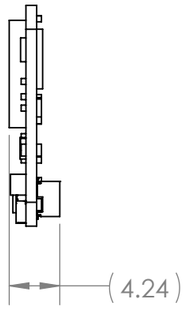


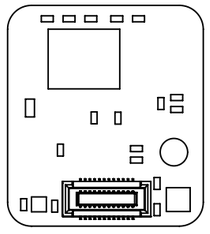




THERMAL IMAGING CORE







COPROCESSOR BOARD

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