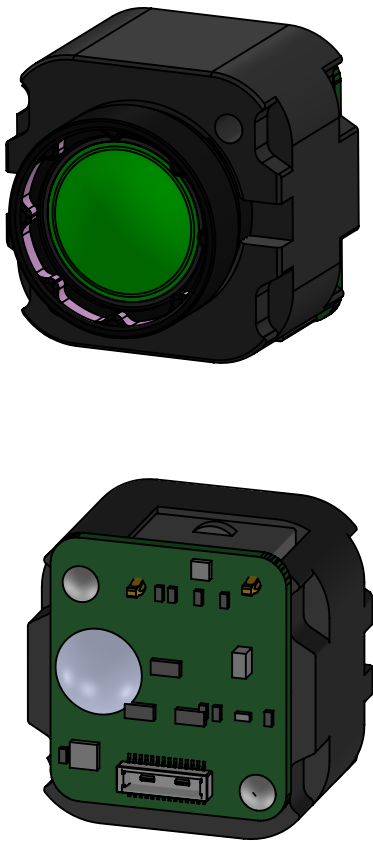


Mosaic Core Specification

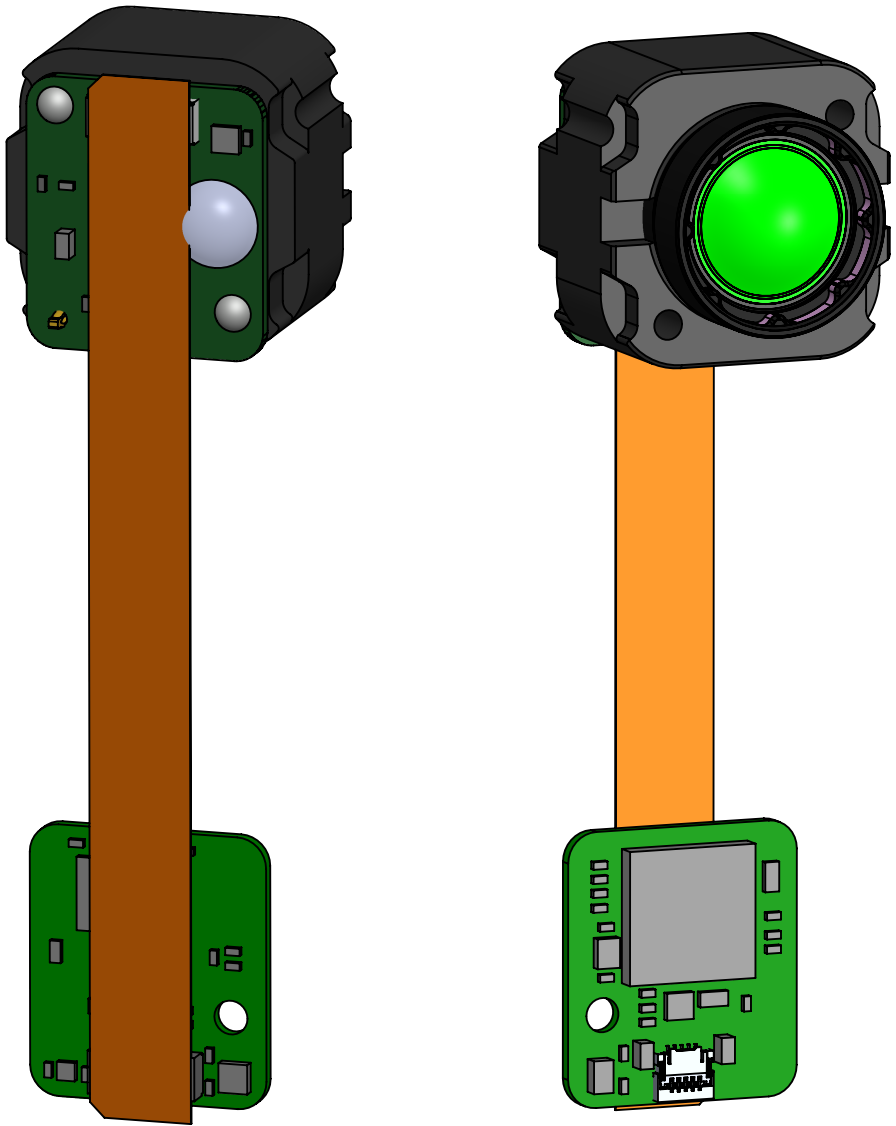
Core Number: C219SPX		Starter Kit Number: S219SPX		Rev. 3		11/05/2021	
Product Specifications:		Description					
Microbolometer		Uncooled Vanadium Oxide					
Pixel Pitch		12 Microns					
Spectral Response		7.8 - 14 Microns					
Sensor Resolution (Array Format)		200 (h) x 150 (v); 30,000 pixels					
Frame Rate		Fast Frame - up to <32Hz					
Non-Uniformity Correction (NUC)		Automatic NUC (with shutter)					
Video Output Interfaces		USB					
Power:							
Power Requirement		3.3-5.0V, <50mW (Core only), 300mW (Core + Coprocessor Board)					
Optical & Mechanical:							
Focal Length		9.1mm EFL					
F-number (Focal Length/aperture)		f/1.00					
Spatial Resolution (IFOV, center)		1.32					
Field of View (FOV)		15° Horizontal x 12° Vertical					
Detection Range		758m (based on Johnson Criteria)					
Recognition Range		190m (based on Johnson Criteria)					
Identification Range		108m (based on Johnson Criteria)					
Distance to Spot Ratio		126:1					
Core Size/ Core Weight		20mm x 20mmx 21mm			Core Weight: 12 g		
Seek Software Development Kit:							
Supported Platforms		USB: Seek Linux, Windows, & Android SDK					
Output Formates (User selectable)		Linux / Windows SDK			Android SDK		
		16-bit filtered pre AGC			16-bit filtered pre AGC		
		32-bit ARGB post colorization.			32-bit ARGB post colorization in the bitmap image.		
		32-bit floating point or 16-bit fixed point			32-bit floating point or 16-bit fixed point thermography		
Imaging Specifications: Calibrated Output in °C, °F, K							
Imaging Range		-40°C to +330°C at ambient operating temprature					
Thermography Accuracy		Center spot temperature greater of ±5°C or 5% between 5°C to 140°C					
		Center spot temperature greater of ±10°C or 10% (typical) above 140°C					
		All measured at 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.					
Sensor Sensitivity		65 mK (typical), <100 mK (max) @ 25°C					
Emmissivity		Factory default emissivity is set to 0.97. Emissivity is adjustable using the SDK.					
Environmental Conditions:							
Operating Temperature Range		-10°C to +60°C (-14°F to 140°F)					
Storage Temperature Range		-40°C to +80°C (-40°F to 176°F)					
Solar Protection		Yes					
Humidity		10%~95%RH, non-condensing					
Regulatory		ROHS, WEEE, REACH					
Accessories:							
Cushion		Yes					
Bracket		Yes					
Sensor Flex		Yes					
Coprocessor Board		Yes					
USB Flex		Yes					
<div><div><div>CUSHION</div><div>THERMAL CAMERA</div><div>BRACKET</div><div></div></div><div>THERMAL CORE</div><div><div>SENSOR FLEX</div><div>INTERFACE BOARD</div><div>USB FLEX</div><div></div></div><div>COPROCESSOR BOARD AND INTERFACE KIT</div><div>Provided by Seek or receive design files for integration into other electronics</div></div>							
Customer Responsibilities:							
IP Rating		IP67					
Shock/Vibe		Customer responsibility with proper integration into final product housing					

THIS DRAWING COVERS
THE FOLLOWING SKUS:
C2*9*
C3*9*
S2*9*
S3*9*

NO COPROCESSOR BOARD



"P" OPTION WITH COPROCESSOR BOARD

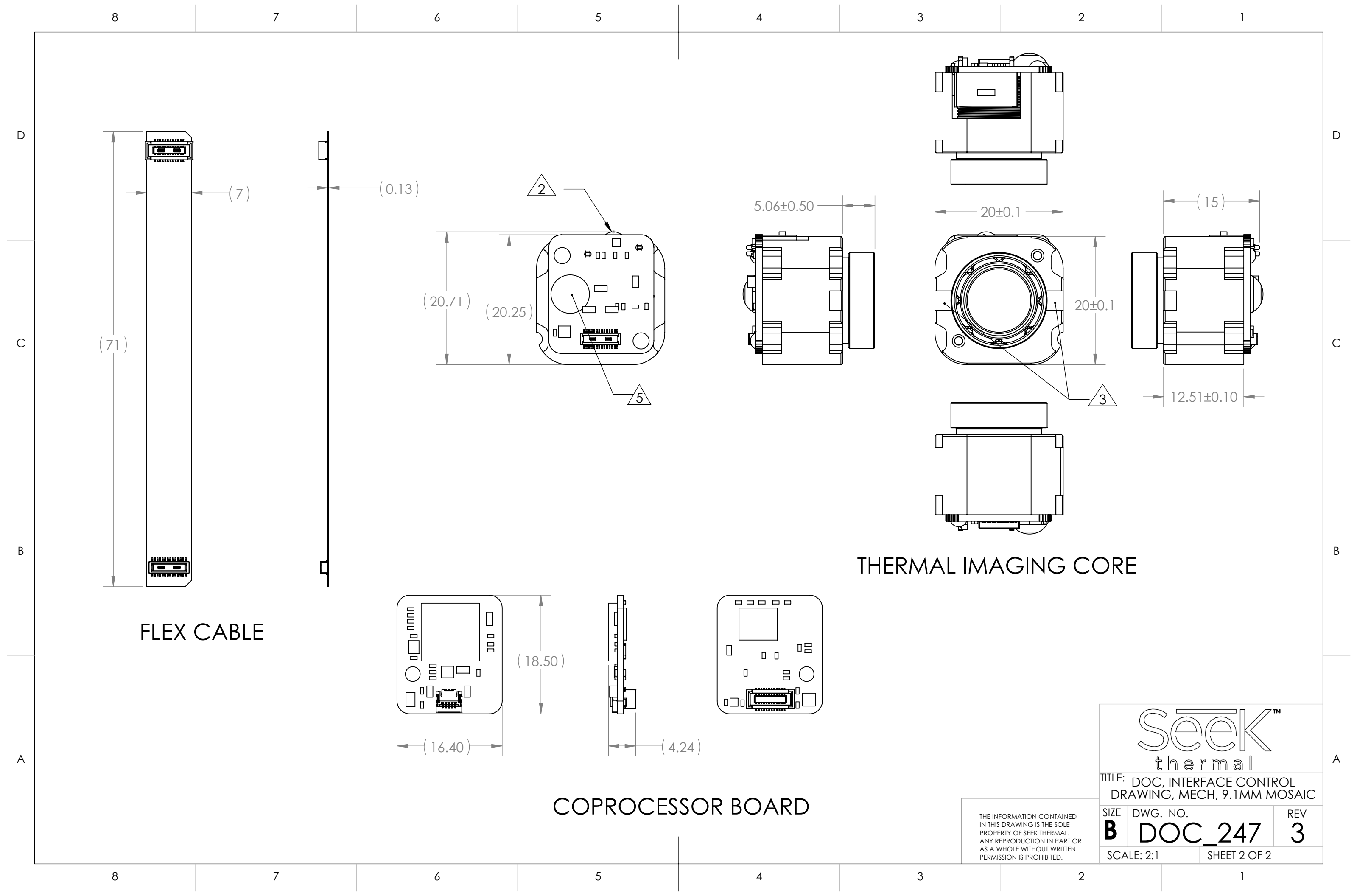


NOTES:

- 1. SEE 3D CAD FILE FOR FULL GEOMETRY.
- 2. THIS DESIGN IS CAPABLE OF BEING IP67 WHEN USED WITH APPROPRIATE SEALING DESIGN. SEE MOSAIC DATASHEET.
- 3. COPROCESSOR BOARD AND FLEX INCLUDED WITH "P" OPTION CORES.

- 2. KEEP-OUT FOR SHUTTER CLEARANCE.
- 3. LENS ADHESIVE DOES NOT EXTEND ABOVE FRONT FACE.
- 5. ADHESIVE BUMP PRESENT ON <9Hz CORES.

MATERIAL	SEE NOTES	DRAWN	DLM	27MAR2019
FINISH	SEE NOTES	APPR.		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MM (IN) IN ACCORDANCE WITH ASME Y14.5-2009		THIRD ANGLE PROJECTION		
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°		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SEEK THERMAL. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED.		
		SEEK thermal		
TITLE: DOC, INTERFACE CONTROL DRAWING, MECH, 9.1MM MOSAIC				
SIZE	DWG. NO.	REV		
B	DOC_247	3		
SCALE: 2:1		SHEET 1 OF 2		



FLEX CABLE

COPROCESSOR BOARD

THERMAL IMAGING CORE



TITLE: DOC, INTERFACE CONTROL
DRAWING, MECH, 9.1MM MOSAIC

SIZE	DWG. NO.	REV
B	DOC_247	3
SCALE: 2:1		SHEET 2 OF 2

THE INFORMATION CONTAINED
IN THIS DRAWING IS THE SOLE
PROPERTY OF SEEK THERMAL.
ANY REPRODUCTION IN PART OR
AS A WHOLE WITHOUT WRITTEN
PERMISSION IS PROHIBITED.