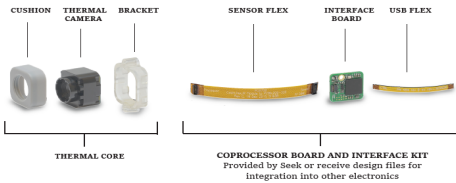
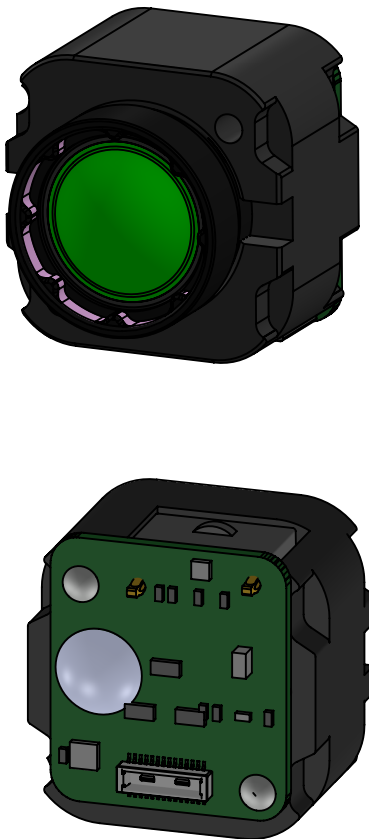


Mosaic Core Specification

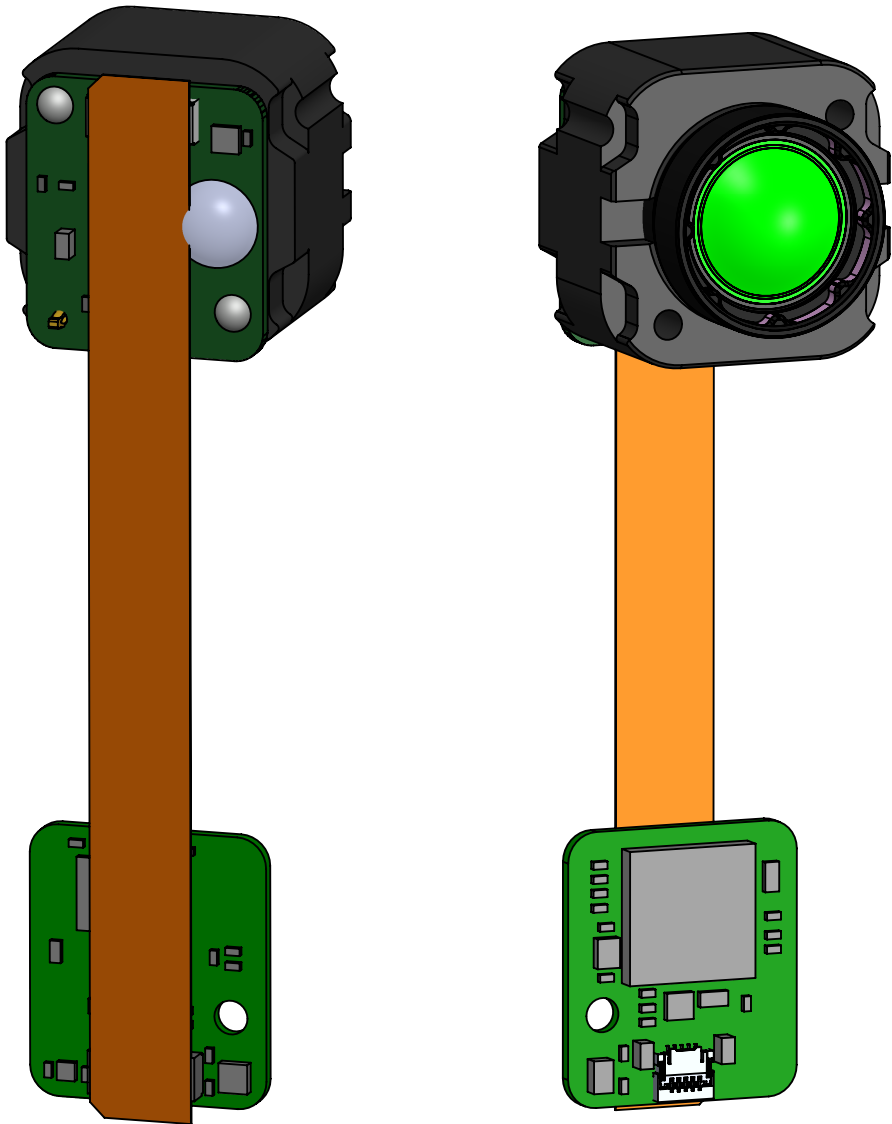
Core Number: C209SP		Starter Kit Number: S209SP	Mktg Rev. 3	11/05/2021
Product Specifications:		Description		
Microbolometer	Uncooled Vanadium Oxide			
Pixel Pitch	12 Microns			
Spectral Response	7.8 - 14 Microns			
Sensor Resolution (Array Format)	200 (h) x 150 (v); 30,000 pixels			
Frame Rate	Slow Frame - <9Hz			
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 data.	
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			
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



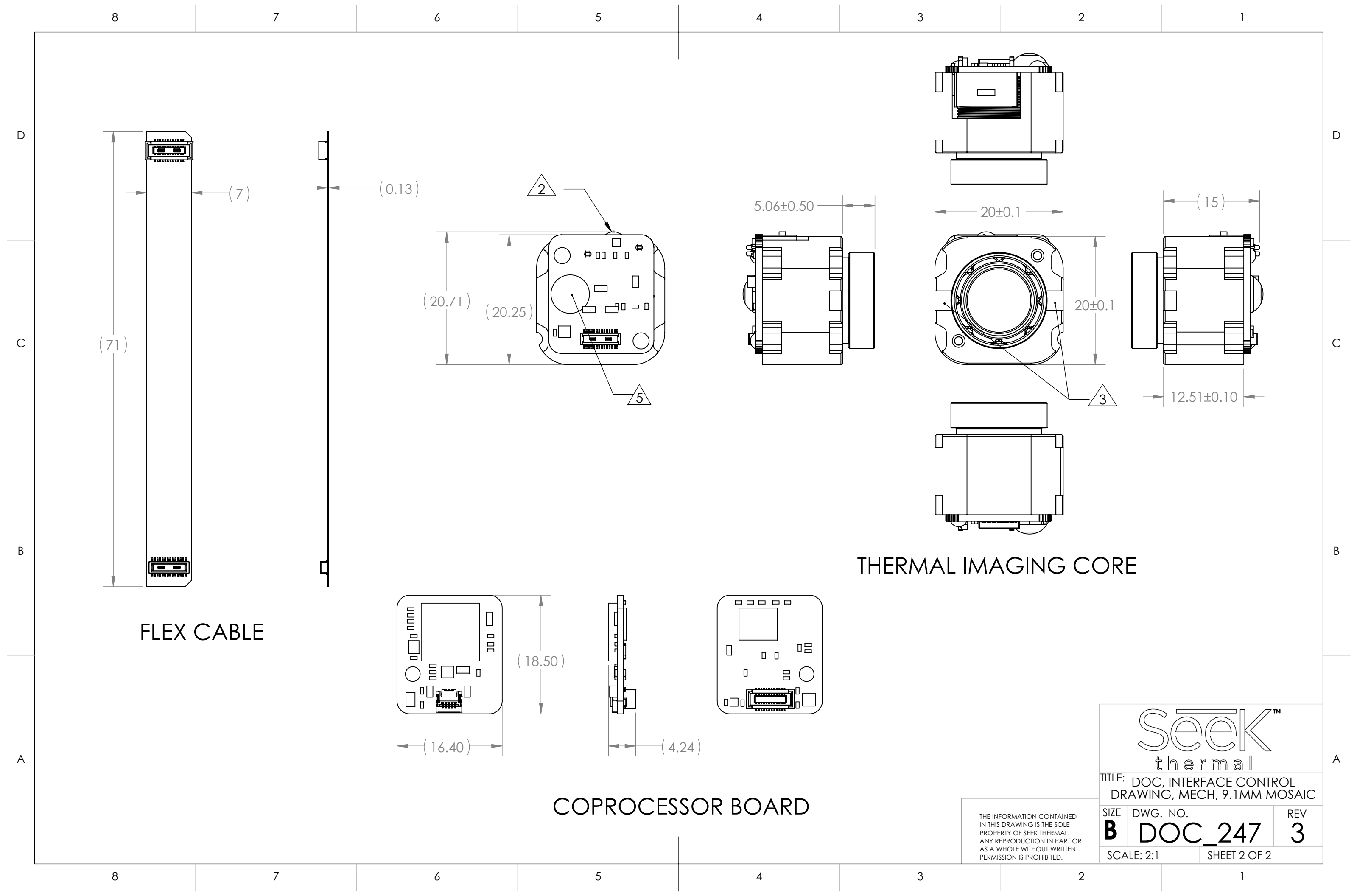
NOTES:

- 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.		
		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

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

SEEK™
thermal

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