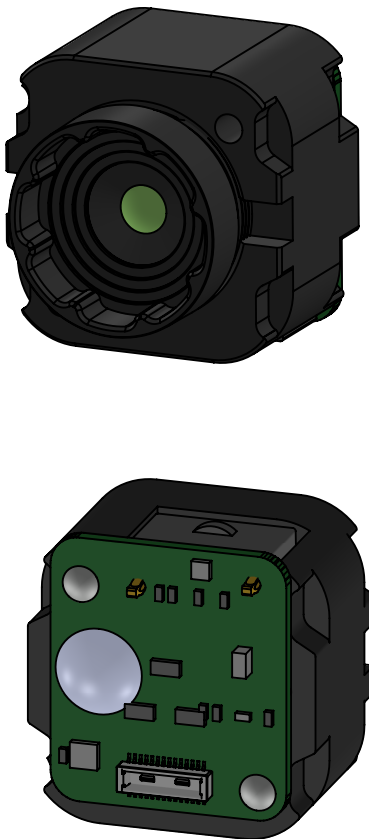


Mosaic Core Specification

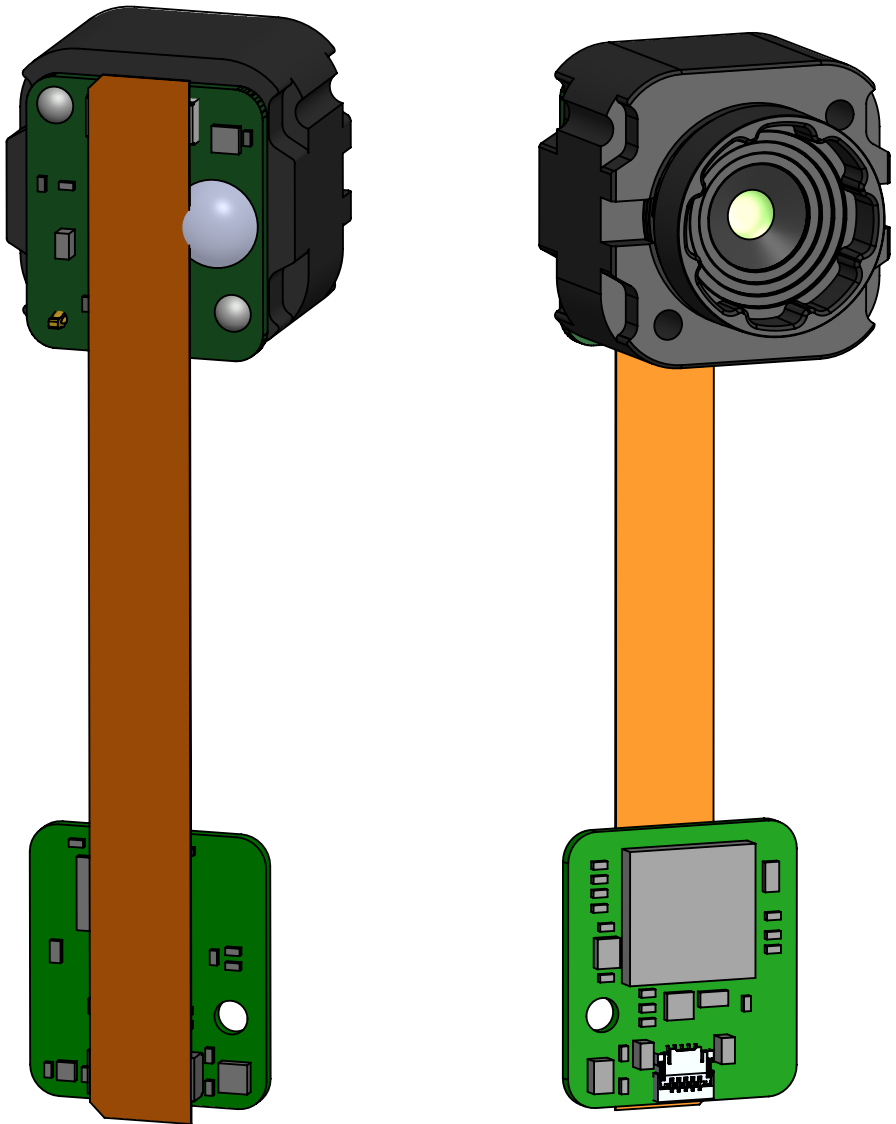
Core Number: C314SPX		Starter Kit Number: S314SPX		Rev. 3		11/05/2021	
Product Specifications:		Description					
Microbolometer		Uncooled Vanadium Oxide					
Pixel Pitch		12 Microns					
Spectral Response		7.8 - 14 Microns					
Sensor Resolution (Array Format)		320 (h) x 240 (v); 76,800 pixels					
Frame 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		4.0mm EFL					
F-number (Focal Length/aperture)		f/1.00					
Spatial Resolution (IFOV, center)		3.00					
Field of View (FOV)		56° Horizontal x 42° Vertical					
Detection Range		333m (based on Johnson Criteria)					
Recognition Range		83m (based on Johnson Criteria)					
Identification Range		48m (based on Johnson Criteria)					
Distance to Spot Ratio		56:1					
Core Size / Core Weight		20mm x 20mm x 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					
CUSHION THERMAL CAMERA BRACKET							

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: 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, 4.0MM MOSAIC

SIZE

DWG. NO.

REV

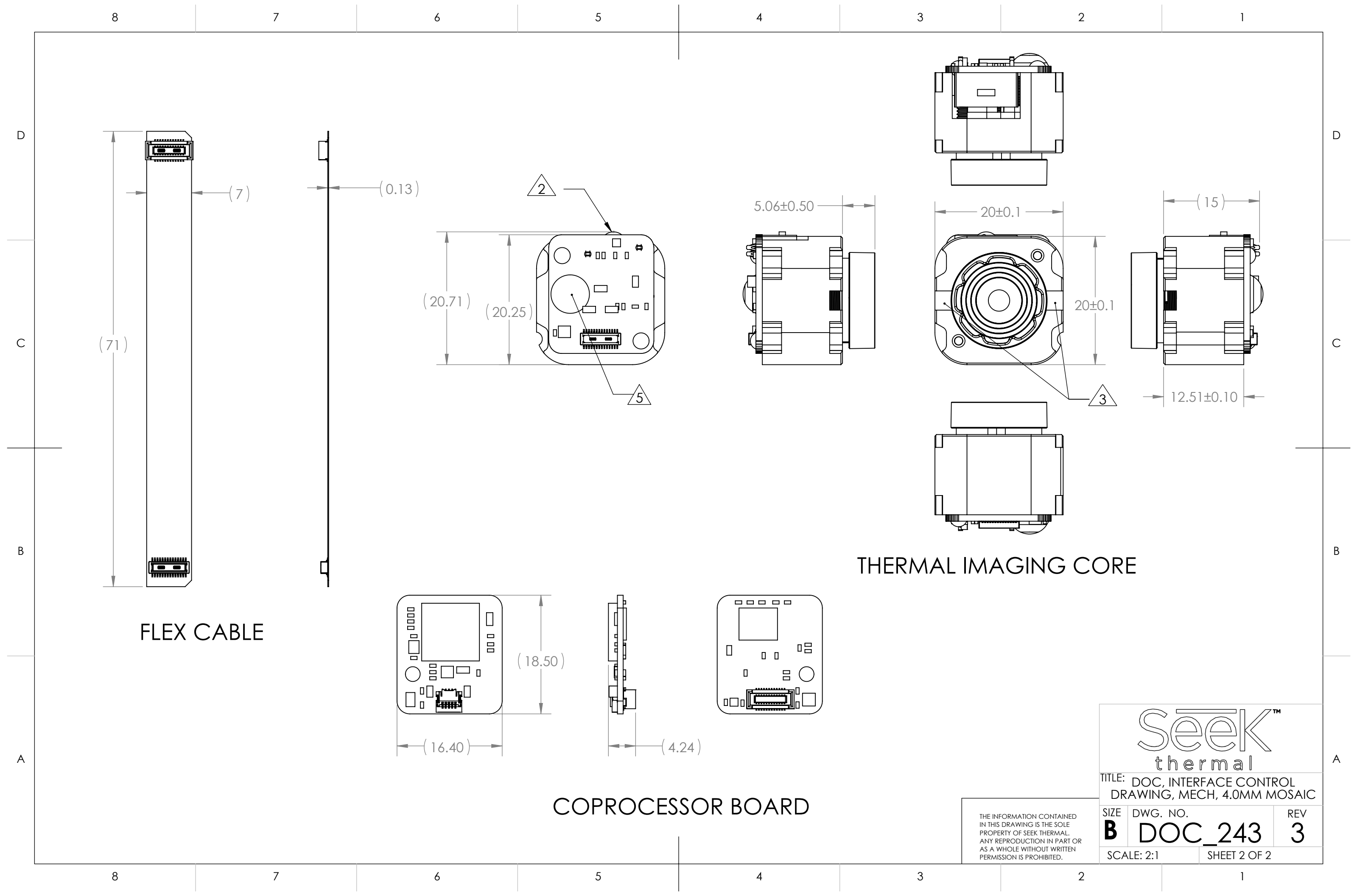
B

DOC_243

3

SCALE: 2:1

SHEET 1 OF 2



FLEX CABLE

COPROCESSOR BOARD

THERMAL IMAGING CORE



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

SIZE	DWG. NO.	REV
B	DOC_243	3
SCALE: 2:1		SHEET 2 OF 2

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