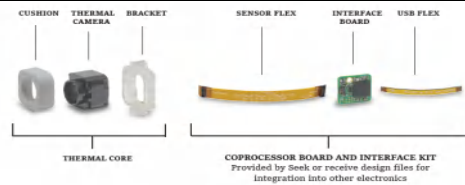


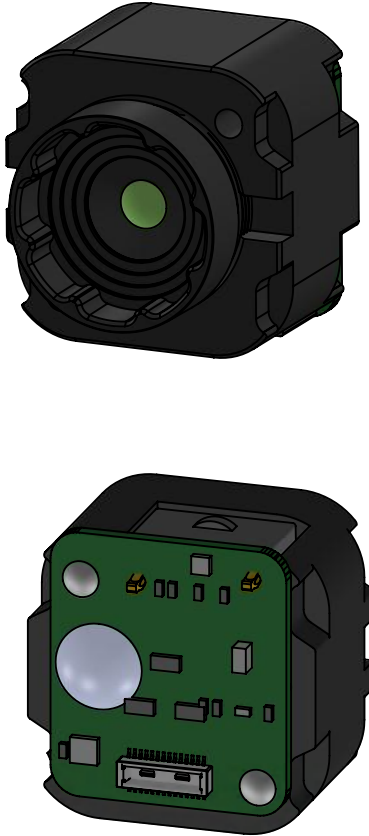
Mosaic Core Specification

Core Number: C204SP		Starter Kit Number: S204SP	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	4.0mm EFL			
F-number (Focal Length/aperture)	f/1.00			
Spatial Resolution (IFOV, center)	3.00			
Field of View (FOV)	35° Horizontal x 26° 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 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			

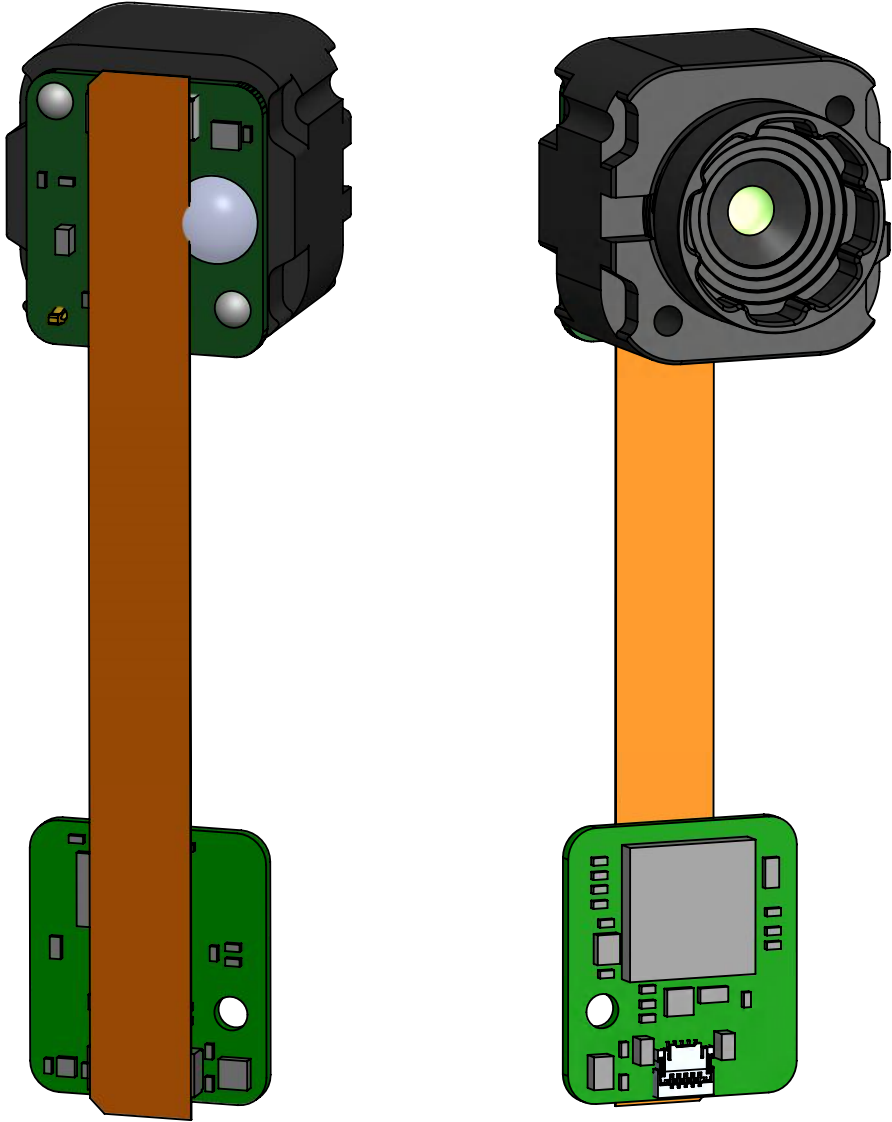
THIS DRAWING COVERS
THE FOLLOWING SKUS:

C2*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. 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. KEEPOUT 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, 4.0MM MOSAIC

SIZE

DWG. NO.

REV

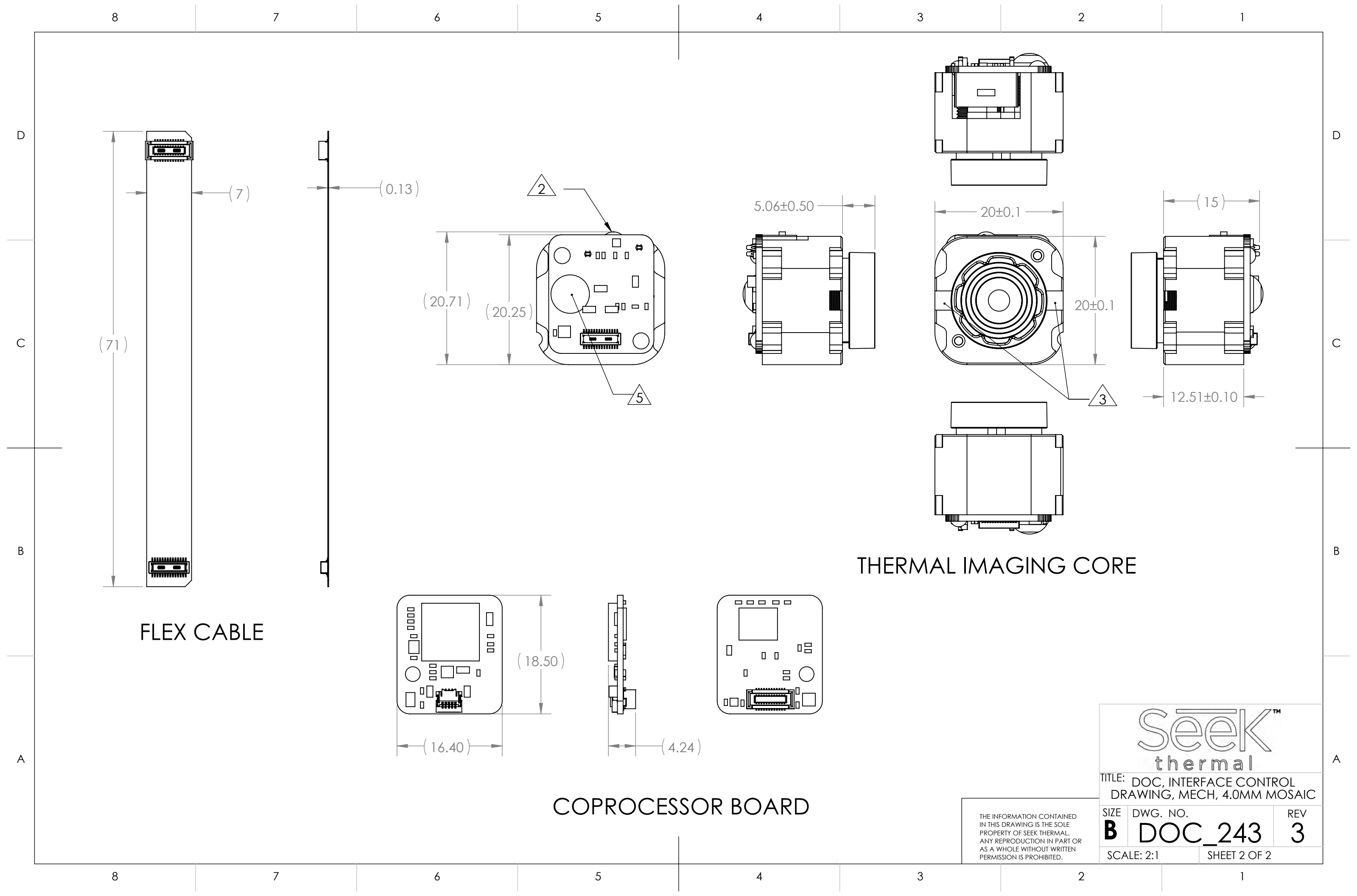
B

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

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.