

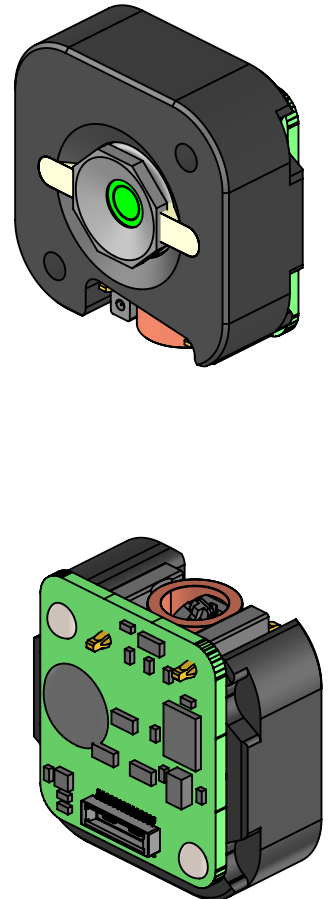
Mosaic Core Specification

Core Number: C202SP		Starter Kit Number: S202SP		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	2.2mm EFL						
F-number (Focal Length/aperture)	f/1.05						
Spatial Resolution (IFOV, center)	5.23						
Field of View (FOV)	61° Horizontal x 45° Vertical						
Detection Range	186m (based on Johnson Criteria)						
Recognition Range	46m (based on Johnson Criteria)						
Identification Range	27m (based on Johnson Criteria)						
Distance to Spot Ratio	31:1						
Core Size/ Core Weight	10mm x 20mm x 21mm					Core Weight: 8 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		<p>The diagram shows two main accessory groups. The first group, labeled 'THERMAL CORE', includes a grey cushion, a black thermal camera, and a white bracket. The second group, labeled 'COPROCESSOR BOARD AND INTERFACE KIT', includes a yellow sensor flex, a green interface board, and a yellow USB flex. Below the diagram, text reads: 'Provided by Seek or receive design files for integration into other electronics'.</p>				
Bracket	Yes						
Sensor Flex	Yes						
Coprocessor Board	Yes						
USB Flex	Yes						
Customer Responsibilities:							
IP Rating	N/A						
Shock/Vibe	Customer responsibility with proper integration into final product housing						

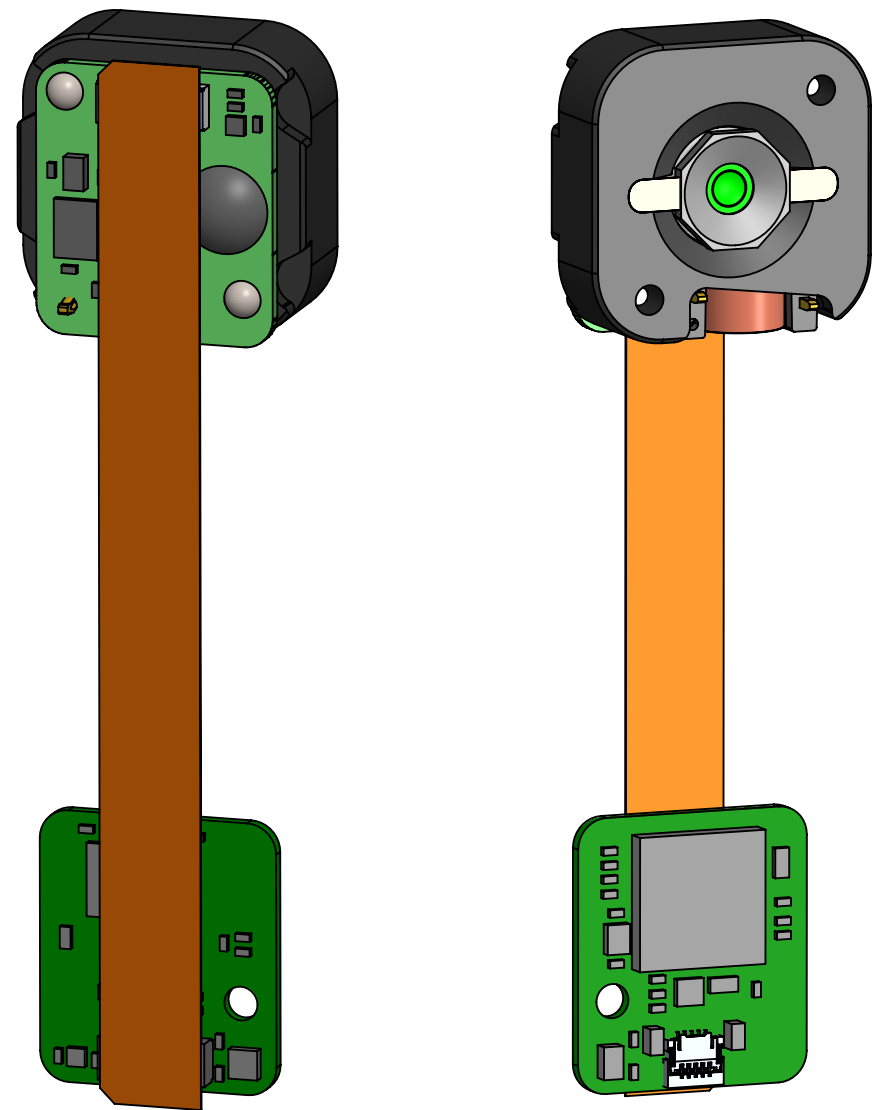
THIS DRAWING COVERS
THE FOLLOWING SKUS:

- C2*2*
- C3*2*
- S2*2*
- S3*2*

NO COPROCESSOR BOARD



"P" OPTION WITH COPROCESSOR BOARD



NOTES:

1. SEE 3D CAD FILE FOR FULL GEOMETRY.
 2. THIS DESIGN IS NOT IPxx RATED.
 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.		

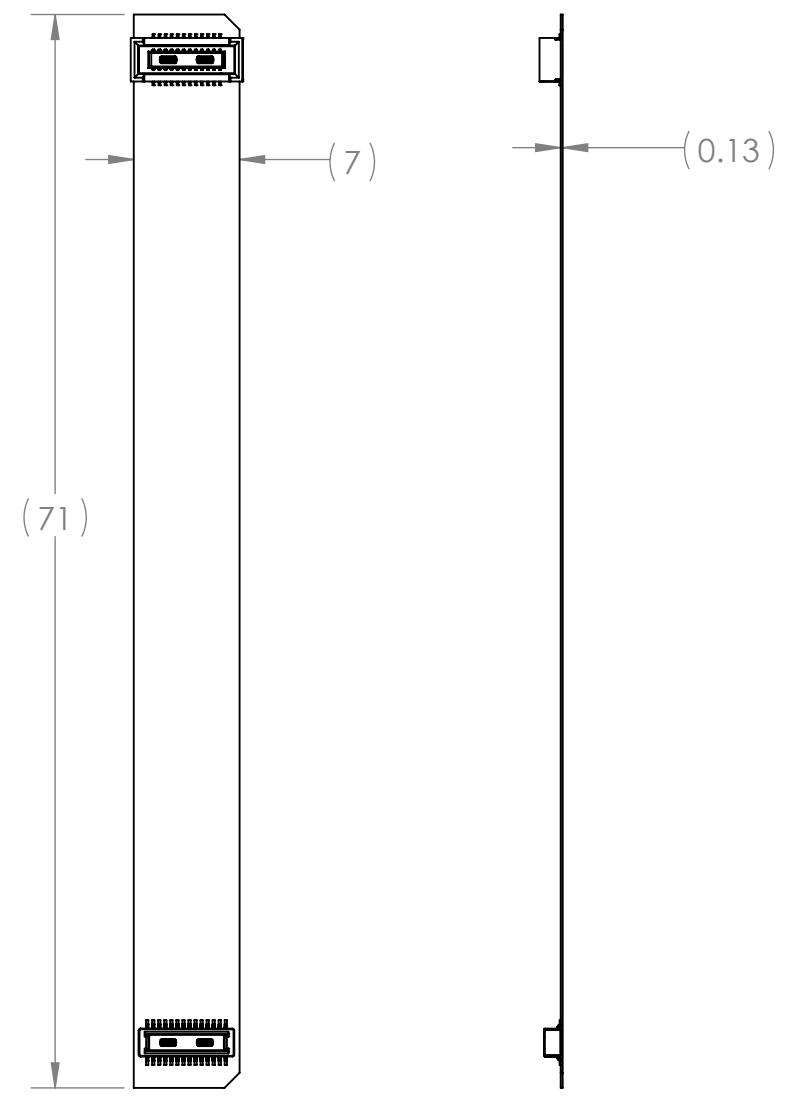
Seek™
thermal

TITLE: DOC, INTERFACE CONTROL
DRAWING, MECH, 2.2MM MOSAIC

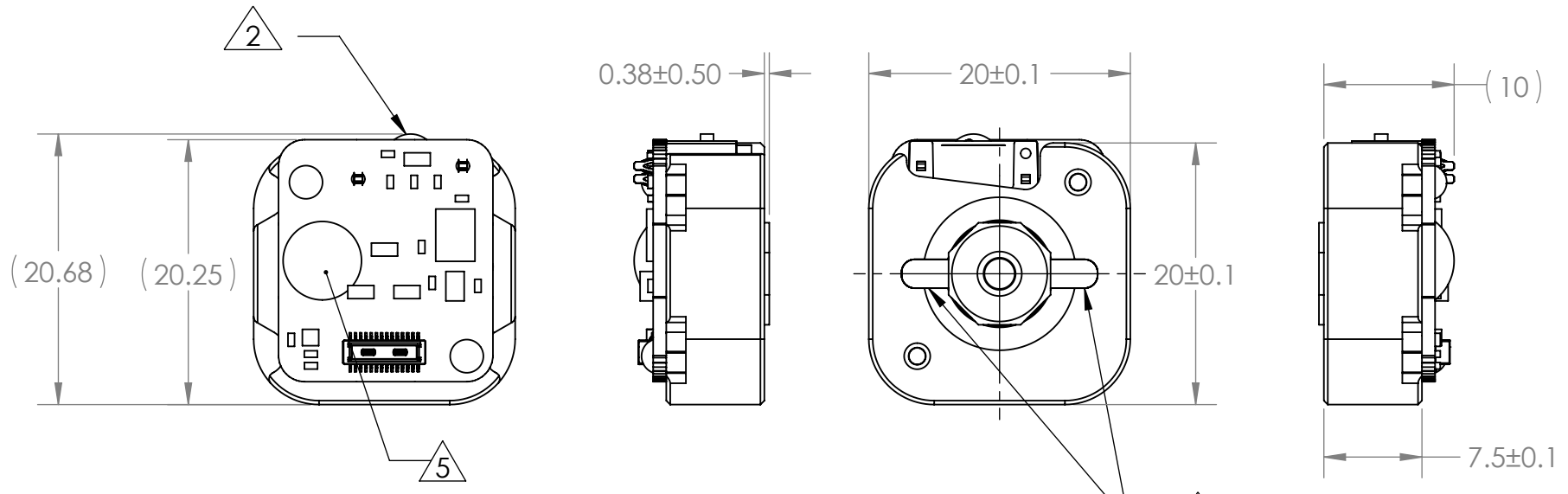
SIZE	DWG. NO.	REV
B	DOC_233	4
SCALE: 2:1		SHEET 1 OF 2

8 7 6 5 4 3 2 1

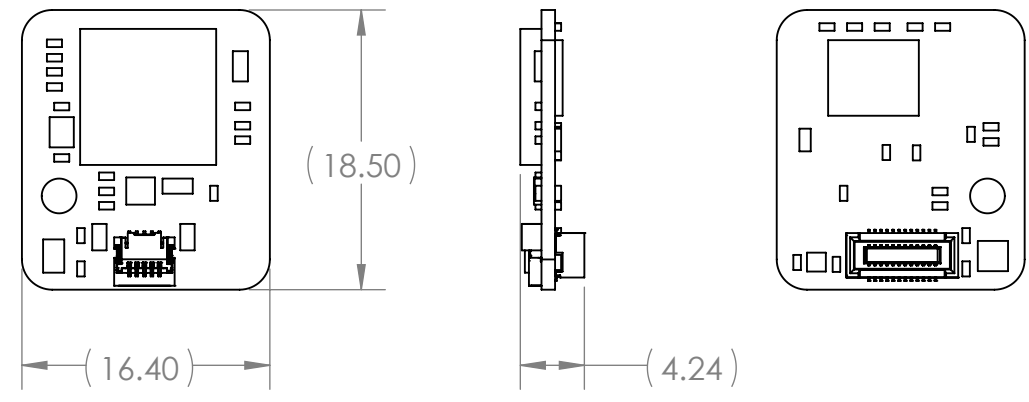
D
C
B
A



FLEX CABLE



THERMAL IMAGING CORE



COPROCESSOR BOARD

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, 2.2MM MOSAIC

SIZE	DWG. NO.	REV
B	DOC_233	4
SCALE: 2:1		SHEET 2 OF 2

8 7 6 5 4 3 2 1