

Mosaic Core Specification

<b>Core Number: C216SPX</b>		<b>Starter Kit Number: S216SPX</b>		<b>Rev. 3</b>		<b>11/05/2021</b>	
<b>Product Specifications:</b>		<b>Description</b>					
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					
<b>Power:</b>							
Power Requirement		3.3-5.0V, <50mW (Core only), 300mW (Core + Coprocessor Board)					
<b>Optical &amp; Mechanical:</b>							
Focal Length		6.6mm EFL					
F-number (Focal Length/aperture)		f/1.26					
Spatial Resolution (IFOV, center)		1.82					
Field of View (FOV)		21° Horizontal x 15° Vertical					
Detection Range		543m (based on Johnson Criteria)					
Recognition Range		136m (based on Johnson Criteria)					
Identification Range		78m (based on Johnson Criteria)					
Distance to Spot Ratio		91:1					
Core Size/ Core Weight		23mmx20mmx21mm				Core Weight: 12 g	
<b>Seek Software Development Kit:</b>							
Supported Platforms		USB: Seek Linux, Windows, & Android SDK					
<b>Output Formates (User selectable)</b>		<b>Linux / Windows SDK</b>			<b>Android SDK</b>		
		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		
<b>Imaging Specifications:</b>		<b>Calibrated Output in °C, °F, K</b>					
Imaging Range		-40°C to +330°C at ambient operating temprature					
Thermography Accuracy		Center spot temperature greater of ±5°C or 5% between -10°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.					
<b>Environmental Conditions:</b>							
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					
<b>Accessories:</b>							
Cushion		Yes					
Bracket		Yes					
Sensor Flex		Yes					
Coprocessor Board		Yes					
USB Flex		Yes					
		<p style="text-align: center;"> <span style="display: inline-block; text-align: center;">CUSHION    THERMAL CAMERA    BRACKET</span>  <span style="display: inline-block; text-align: center;">SENSOR FLEX    INTERFACE BOARD    USB FLEX</span>  <span style="display: inline-block; text-align: center;">THERMAL CORE</span>      <span style="display: inline-block; text-align: center;">COPROCESSOR BOARD AND INTERFACE KIT</span>  <small>Provided by Seek or receive design files for integration into other electronics</small> </p>					
<b>Customer Responsibilities:</b>							
IP Rating		IP67					
Shock/Vibe		Customer responsibility with proper integration into final product housing					



