High-Performance HD Thermal Imaging Cameras



- State of the art "HOT" high operating temperature cryo IRFPAs
- HD and large format; high resolution
- OEM cameras customizable to your needs
- Long life linear coolers
- Onboard video processing
- Low size, weight and power (SWAP)

BostonElectronics

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American Infrared Solution's Mission

American Infrared Solutions (AIRS) was formed in 2011 by several proven leaders from the EO/IR industry to address the unique needs of demanding military and scientific customers. We are passionate about creating solutions for the most challenging applications, and we have a deep respect for our clients.

Our expertise in IDCA integration and optical system design, coupled with the freedom to source the optimal mix of components for your application makes us the ideal partner.

Our team has over 150 years of combined experience in infrared imaging with veterans of many of the leading companies in advanced imaging including General Dynamics, FLIR, GE Aerospace, ICX and UTC. We have extensive experience in defense program partnering, scientific systems and industrial applications.

Located in Hudson New Hampshire, in the heart of the United States infrared technology belt, our facility offers full assembly, service, and testing capability for IDCAs, electronics and optical systems.

As a merchant supplier to leading defense and scientific companies, we appreciate the proprietary nature of your development and operate with full discretion and propriety. We encourage interested parties to reach out by phone and talk with our engineering team to learn more.





AIRS Nucleus[™] MWIR Camera

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1280 x 1024 Nucleus Mid Wave Infrared Camera

- High resolution, high sensitivity, and low noise infrared camera is well suited to demanding defense and scientific applications.
- AIRS Nucleus™ MWIR Camera design is light weight and low power enabling both portable field use and easy system integration.
- Available with or without a handle in a rugged aluminum chassis.
- Bayonet mount enables easy lens swapping between various lens focal lengths.
- Nyx Connect[™] software simplifies set-up and control of critical sensor settings and digital video through a reliable Camera Link or USB3 Vision connection.
- On board video processing enables corrected video output with custom nonuniformity tables and user applied pixel maps for maximum performance.

AIRS Nucleus™ MWIR Camera

Nyx M	lucleus™ MWIR Camera	
	Sensor	
Туре	HOT MWIR	
Response	3-5µm	
Resolution	1280 x 1024	
NEdT	<25mk	
Pixel Pitch	12µm	A lingue
	Electronics	
Frame Rate	60Hz	
Integration Time	100µs to 98% full frame	
Integration Type	Integrate-While-Read	
A/D Resolution	16-bit	
Video Output	Camera Link Base or USB3 Vision	
Communication	RS-232 Serial over Camera Link or	AMERICAN INFRARED SOLUTIO
	USB3 Vision	
	Optics	1 Wall St. Hudson NH, 03051 (662) 626-247
Cold Filter	3.0μm cut-on	
Lens Type	25, 50, 100mm, other options	
F Number	f/2.5	
Lens Mounting	Bayonet	
Lens MTF Data	Available on request	G-BPA
	Mechanical	
Size Without Lens	L x W x H (6 x 3.5 x 4 in)	
Weight Without Lens	Approximately 4 lbs.	Sand and the state of the second state
Cool Down Time	6 minutes typical	
Cooler Type	Linear cooler	
MTTF	>15,000 hours	
Camera Mount	1/4"-20 standard tripod	
	Environmental	
Operating Temp	-20°C to + 50°C	
Storage Temp	-50°C to + 70°C	
	Electrical	
Input Voltage	16V	
Steady State Power	22W @ 23°C Typical	
Max Power	30W	(6)
	Control	

Nyx Connect[™] software simplifies set-up and control of critical sensor settings and digital video through a reliable Camera Link or USB3 Vision connection. See our video options data sheet.



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Specifications subject to change

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4-14-2023

AIRS Nucleus[™] LWIR Camera

BostonElectronics



1280 x 1024 Nucleus Long Wave Infrared Camera

- High resolution, high sensitivity, and low noise infrared camera is well suited to demanding defense and scientific applications.
- AIRS Nucleus™ LWIR Camera design is light weight and low power enabling both portable field use and easy system integration.
- Available with or without a handle in a rugged aluminum chassis.
- Bayonet mount enables easy lens swapping between various lens focal lengths.
- Nyx Connect[™] software simplifies set-up and control of critical sensor settings and digital video through a reliable Camera Link or USB3 Vision connection.
- On board video processing enables corrected video output with custom nonuniformity tables and user applied pixel maps for maximum performance.

AIRS Nucleus™ LWIR Camera

Nyx N	Nucleus™ LWIR Camera	
	Sensor	
Туре	SLS	
Response	7.5-12μm	
Resolution	1280 x 1024	
NEdT	<30mk	
Pixel Pitch	12µm	
	Electronics	
Frame Rate	60Hz	
Integration Time	100μs to 98% full frame	
Integration Type	Integrate-While-Read	
A/D Resolution	16-bit	
Video Output	Camera Link Base or USB3 Vision	
Communication	RS-232 Serial over Camera Link or	AMERICAN INFRARED SOLUTIO
	USB3 Vision	
	Optics	1 Wall St. Hudson NH, 03051 (662) 626-24
Cold Filter	7.5μm cut-on	
Lens Type	25, 50, 100mm, other options	
F Number	f/2.0	
Lens Mounting	Bayonet	
Lens MTF Data	Available on request	G-BYRA
	Mechanical	- 6 BEED
Size Without Lens	L x W x H (7.5 x 3.5 x 5 in)	
Weight Without Lens	Approximately 6 lbs.	for a second second strategy and
Cool Down Time	6 minutes typical	
Cooler Type	Linear cooler	
MTTF	>20,000 hours	
Camera Mount	1/4"-20 standard tripod	
	Environmental	
Operating Temp	-20°C to + 50°C	
Storage Temp	-50°C to + 70°C	
	Electrical	
Input Voltage	24V	
Steady State Power	25W @ 23°C Typical	
Max Power	40W	(6-12-
	Control es set-up and control of critical sensor settings and	

Nyx Connect[™] software simplifies set-up and control of critical sensor settings and digital video through a reliable Camera Link or USB3 Vision connection. See our video options data sheet.



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4-24-2023

Nyx Connect[™]

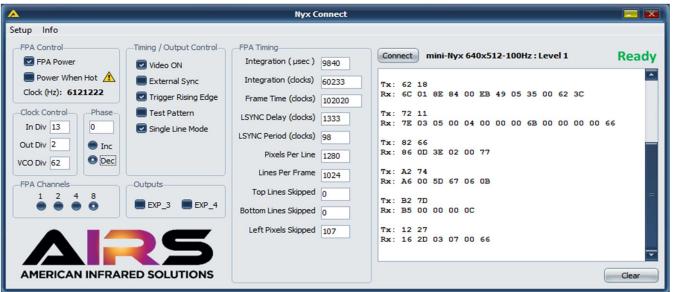
Image Processing Options for **AIRS Smart IDCA's and Cameras**

American IR Solutions offers a full strata of camera connectivity and control solutions for OEM system integration or stand-alone applications.

Our new Nyx Connect[™] software simplifies set-up and control of critical sensor settings and digital video through a reliable Camera Link or USB3 Vision connection.

System integrators can experiment with custom integration times, advanced pixel replacement tools and other image optimization settings in a safe environment.

Video options include Camera Link, USB3 Vision, GigE, HDMI and HDSDI outputs.



Nyx Connect[™] Level 1

Ideally suited for Smart IDCA and Camera integration and enables streamlined development for engineers, systems integrators, and OEMs. The Nyx Connect software provides a user-friendly GUI enabling control over important camera and ROIC settings.









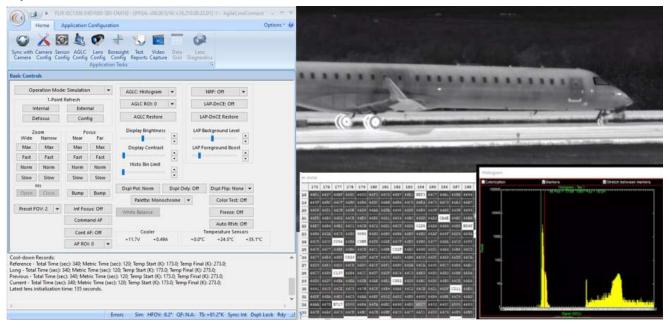
AMERICAN INFRARED SOLUTIONS

Nyx Connect[™] Level 2

PA Power Video ON Integration (Jsec) 9840 Build Dead Pixel Map Acquire Low Temp Data Power When Hot A External Sync Integration (clocks) 60233 Kill Noisy Pixels Acquire High Temp Data Tx: D2 4B	
Clock Control Phase Frame Time (cocks) 102020 Clear Dead Pixel Map Two Point NUC Clock Control Phase Test Pattern LSYNC Delay (docks) 1333 Dead Pixel Count One Point NUC In Div In Div In Div Gain Correction LSYNC Period (docks) 98 Dead Pixel Count Dead Pixel Storage NUC Table Storage Tx: F3 10 4C VCO Div © Deed Offset Correction Pixels Per Frame 1024	280x1024 : Level 2 Read

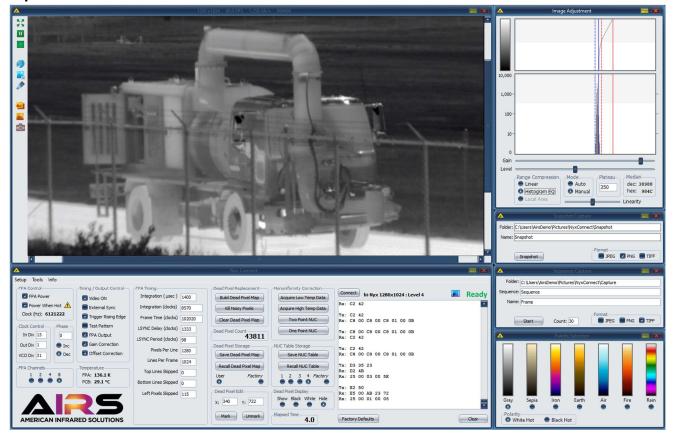
Enables a comprehensive set of tools for integrators, OEMs, and end users. This includes non-uniformity correction, dead pixel replacement, and four programmable NUC tables, in addition to the features included in Level 1 dashboard.

Nyx Connect[™] Level 3



Provides a full suite of video processing options including lens control. A second video output channel can be configured to support HDSDI, GigE, HDMI, or USB3. Camera Link video is managed through a Imperx frame grabber, enabling live video management, scene ranges, pixel replacement and image enhancements.

Nyx Connect[™] Level 4



Offers comprehensive access and control over all system attributes and crucial image management, including proprietary AIRS contrast enhancement and pixel replacement tools. Advanced pixel correction features include intuitive tools that automatically identify and replace dead pixels, along with the capability to manually mark individual pixels. Select any of seven pseudo color palettes. Save snapshots or frame sequences in JPEG, PNG, or TIFF format.

Feature	Level 1	Level 2	Level 3	Level 4
Programmable Integration Time	\checkmark	\checkmark	✓	\checkmark
Uncorrected Data Output	16b	16b	14b	16b
Corrected Data Output	-	16b	14b	16b
Camera Link Base Data Interface	\checkmark	\checkmark	✓	~
USB3 Vision	-	-	\checkmark	\checkmark
2nd Video Output Option: HD-SDI, HDMI, GigE or USB3 Vision	-	-	~	-
Pixel Correction	-	\checkmark	√	~
Advanced Pixel Correction	-	-	-	\checkmark
Linear AGC	-	-	✓	~
Histogram Equalization	-	-	✓	~
Local Area Processing	-	-	✓	-
Color Palettes	-	-	✓	\checkmark
User Programmable NUC Tables & Camera States	-	4	6	4
Restore from factory NUC Table	-	\checkmark	-	✓
Store Imagery to PC	-	-	✓	\checkmark
Live Video in GUI	-	-	-	\checkmark
Camera Control – RS232	\checkmark	\checkmark	\checkmark	\checkmark

IDCA and Camera Connectivity and Control Features



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4-14-2023

OEM Solutions – 1280 High Definition



1280 x 1024 Infrared Cameras, Smart IDCA's, and IDCA's

- High resolution, high sensitivity, and low noise cooled infrared sensors are well suited to demanding defense, scientific, airborne, surveillance, and hyper-spectral applications.
- Available in 3 levels of configuration: Camera, Smart IDCA, and IDCA to best align with OEMs capabilities and strengths. AIRS' flexible design enables easy integration into OEM systems, or end users can customize a complete camera to meet their specific applications.
- Solutions available in mid-wave, long-wave, or broadband spectral bands using appropriate InSb, SLS, nBn, and HOT SLS sensor technologies.
- Nyx Connect[™] software simplifies setup and control of critical sensor settings and allows OEMs and end users to focus on their mission.
- Multiple video outputs available including Camera Link, GigE, USB3 Vision, HDMI, and HD-SDI.
- Optional on-board video processing enables custom non-uniformity tables and user applied pixel maps for maximum performance.
- AIRS' rapid development cycle and proven qualified components allows researchers and OEMs to customize a 1280 solution to their specifications.

AIRS 1280 Cameras

AIRS 1280 camera solutions can be configured to meet your demanding mission critical applications. AIRS has the flexibility to match the optical prescription of your lenses. We have the facilities and technical expertise to install filters and other optics in the cold space. We can rapidly build a 1280 camera solution to your specifications to enable researchers to explore new boundaries.



	Sensor			
Туре	1280 HOT SLS MWIR	1280 InSb MWIR	1280 SLS LWIR	1280 SLS BBIR
Response	2-5µm	1-5µm	7.5-12µm	3-12μm
Sensor Type	HOT SLS @ 120K	InSb @ 77K	SLS @ 70K	SLS @ 70K
Format		1280 x	_	
NEDT	<25mk <30mk			<30mk
Pixel Pitch	12µm			
		Electro		
Frame Rate		Up to 6	50Hz	
Integration Time		100µs to 98%	6 full frame	
Integration Type		Integrate-W	hile-Read	
A/D Resolution		16-t	oit	
Video Output	Came	ra Link, GigE, USB3 '	Vision, HDMI, or H	DSDI
Communication	Seria	al over Camera Link	, USB3 Vision, or G	ìigE
		Opti	cs	
Cold Filter	-	3.0 cut-on, 3.4 cut-on, 7.5 cut-on, Custom Options Available		
Lens Type	25	25, 50, 100mm, custom options available		
Mounting		Bayonet, M80	, or custom	
Lens MTF Data	Available on request			
	Mechanical			
Size without lens	L x W x H (7 x 4 x 4 in)			
Weight Without	Approximately 4 lbs. Approximately 6 lbs.		imately 6 lbs.	
Lens or Handle				
Cool Down Time	6 minutes			utes typical
Cooler Type	Linear and rotary cooler options available			le
MTTF		>20,000 hours line		
Camera Mount		1/4"-20 stand		
Onevetive Terrer		Environr		
Operating Temp		-20°C to		
Storage Temp		-50°C to Electr		
Input Voltage Steady State	20W @ 23°C	12V, 16V, or 24V; c		23°C Typical
Power		γριται	5000 @	25 C Typical
Max Power	25W			45W
	2500	Control and		
Nyx Connect	AIRS Nyx Connect™ sof		•	connectivity and
	AIRS Nyx Connect™ software for Windows offers 4 levels of connectivity and control with additional video options. Please see the video processing options data sheet.			

AIRS 1280 Smart IDCAs

AIRS 1280 Smart IDCAs make integration easy for OEMs. AIRS offers the flexibility to customize a sensor for your application. Smart IDCAs are perfect for camera manufacturers, hyperspectral imaging applications, airborne gimbals, and space solutions. Smart IDCAs are designed to allow engineers to focus on their system without having to engineer FPA control functions. AIRS has the technical expertise to configure a solution to your needs including: cryocooler, optical prescription, mechanical packaging, cold space optics, and video output. Our smart IDCAs work with Nyx Connect[™] for ease of integration. If you have specialized requirements, please call us and our engineers will be happy to discuss a solution.



Sensors	1280 HOT SLS MWIR	1280 InSb MWIR	1280 SLS LWIR	1280 SLS BBIR
	Optical Interface			
Cold Shield	f/1 to f/6 Customizable			
Cold Filter	Bandpass per customer	r requirements		
	Coole	rs (several linear an	d rotary options)	
MTTF Integral Rotary	> 8,000 hours			
MTTF Split Linear	> 20,000 hours			
		Mechanical		
Packaging	To customer specifications			
	Environmental			
Operating Temp	-20°C to +60°C			
Storage Temp	-50C° to +70C°			
	Video & Control			
Frame Rate	Up to 60Hz			
	AIRS Nyx Connect [™] software for Windows offers 4 levels of connectivity and			onnectivity and
Output and Video	control with additional video options. Please see the video processing			ocessing
Processing	options data sheet. Sof	tware ICD is availabl	e for integrators w	who want to use
	their own control syste	m		

AIRS 1280 IDCAs

Our 1280 IDCAs are for OEMs and system engineers who want to use their own electronic solution to operate the FPA. As with our Smart IDCAs, we can configure a solution to your mission.





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Specifications subject to change

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4-25-2023

OEM Solutions – 1K Large Format



1024 x 1024 Infrared Cameras, Smart IDCA's, and IDCA's

- High resolution, high sensitivity, and low noise cooled infrared sensors are well suited to demanding defense, scientific, airborne, surveillance, and hyper-spectral applications.
- Available in 3 levels of configuration: Camera, Smart IDCA, and IDCA to best align with OEMs capabilities and strengths. AIRS' flexible design enables easy integration into OEM systems, or end users can customize a complete camera to meet their specific applications.
- Solutions available in mid-wave, long-wave, or broadband spectral bands using appropriate InSb, SLS, and HOT SLS sensor technologies.
- Nyx Connect[™] software simplifies setup and control of critical sensor settings and allows OEMs and end users to focus on their mission.
- Multiple video outputs available including Camera Link, GigE, USB3 Vision, HDMI, and HD-SDI.
- Optional on-board video processing enables custom non-uniformity tables and user applied pixel maps for maximum performance.
- AIRS' rapid development cycle and proven qualified components allows researchers and OEMs to customize a 1K solution to their specifications.

AIRS 1K Cameras

AIRS 1K camera solutions can be configured to meet your demanding mission critical applications. AIRS has the flexibility to match the optical prescription of your lenses. We have the facilities and technical expertise to install filters and other optics in the cold space. We can rapidly build a 1K camera solution to your specifications to enable researchers to explore new boundaries.



		Sens	sor	
Туре	1K HOT SLS MWIR	1K InSb MWIR	1K SLS LWIR	1K SLS BBIR
Response	2-5µm	1-5µm	7.5-12µm	3-12µm
Sensor Type	HOT SLS @ 120K	InSb @ 77K	SLS @ 70K	SLS @ 70K
Format		1024 x	1024	
NEDT	<25m	k	<	<30mk
Pixel Pitch	18µm			
		Electro	onics	
Frame Rate		Up to 6	50Hz	
Integration Time		20µs to 98%	full frame	
Integration Type		Integrate-W	'hile-Read	
A/D Resolution		16-b	bit	
Video Output	Came	ra Link, GigE, USB3 `	Vision, HDMI, or H	IDSDI
Communication	Seria	al over Camera Link	, USB3 Vision, or G	igE
		Opti	cs	
Cold Filter	3.0 cut-on, 3	3.4 cut-on, 7.5 cut-o	on, Custom Option	is Available
Lens Type	25, 50, 100mm, custom options available			le
Mounting	Bayonet, M80, or custom			
Lens MTF Data	Available on request			
	Mechanical			
Size without lens	L x W x H (7 x 4 x 4 in)			
Weight Without	Approximately 5 lbs. Approximately 6 lbs.		imately 6 lbs.	
Lens or Handle				
Cool Down Time	6 minutes			utes typical
Cooler Type	Linear and rotary cooler options available			le
MTTF		>20,000 hours line		
Camera Mount		1/4"-20 stand	· ·	
		Environr		
Operating Temp		-20°C to		
Storage Temp		-50°C to		
		Electr		
Input Voltage		12V, 16V, or 24V; c	-	
Steady State	20W @ 23°C	Typical	30W @	23°C Typical
Power				
Max Power	25W		-	35W
		Control and		
Nyx Connect	AIRS Nyx Connect [™] software for Windows offers 4 levels of connectivity and control with additional video options. Please see the video processing options data sheet.			

AIRS 1K Smart IDCAs

AIRS 1K Smart IDCAs make integration easy for OEMs. AIRS offers the flexibility to customize a sensor for your application. Smart IDCAs are perfect for camera manufacturers, hyperspectral imaging applications, airborne gimbals, and space solutions. Smart IDCAs include level 1 video processing and are designed to allow engineers to focus on their system without having to engineer FPA control functions. AIRS has the technical expertise to configure a solution to your needs including: cryocooler, optical prescription, mechanical packaging, cold space optics, and video output. Our smart IDCAs work with Nyx Connect[™] for ease of integration. If you have specialized requirements, please call us and our engineers will be happy to discuss a solution.



Compose	AIRS 1K SLS MWIR	AIRS 1K InSb MWIR	AIRS 1K SLS LWIR	AIRS 1K SLS BBIR
Sensors	AIRS IN SLS WIWIR		AIRS IN SLS LVVIR	AIRS IN SLS BBIR
	Optical Interface			
Cold Shield	f/1 to f/6 Customiza	ble		
Cold Filter	Bandpass per custor	mer requirements		
	С	oolers (several linear	and rotary options)	
MTTF Integral Rotary	> 8,000 hours			
MTTF Split Linear	> 20,000 hours			
	Mechanical			
Packaging	To customer specifications			
	Environmental			
Operating Temp	-20°C to +60°C			
Storage Temp	-50C° to +70C°			
	Video & Control			
Frame Rate	Up to 60Hz			
Nyx Connect	control. Please see t	software for Windows he video processing o tors who want to use	ptions data sheet. So	oftware ICD is

AIRS 1K IDCAs

Our 1K IDCAs are for OEMs and system engineers who want to use their own electronic solution to operate the FPA. As with our Smart IDCAs, we can configure a solution to your mission.





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4-25-2023

OEM Solutions – 640 Standard Definition



640 x 512 Infrared Cameras, Smart IDCA's, and IDCA's

- High sensitivity, low SWaP (size, wight, and power) and low noise cooled infrared sensors are well suited to demanding defense, scientific, airborne, surveillance, and hyper-spectral applications.
- Available in 3 levels of configuration: Camera, Smart IDCA, and IDCA to best align with OEMs capabilities and strengths. AIRS' flexible design enables easy integration into OEM systems, or end users can customize a complete camera to meet their specific applications.
- Solutions available in Vis-SWIR, Extended SWIR, mid-wave, long-wave, or broadband spectral bands using appropriate InSb, SLS, MCT, and HOT SLS sensor technologies.
- Nyx Connect[™] software simplifies setup and control of critical sensor settings and allows OEMs and end users to focus on their mission.
- Multiple video outputs available including Camera Link, GigE, USB3 Vision, HDMI, and SDI.
- Optional on board video processing enables custom non-uniformity tables and user applied pixel maps for maximum performance.
- AIRS' rapid development cycle and proven qualified components allows researchers and OEMs to customize a 640 solution to their specifications.

AIRS 640 Cameras

AIRS 640 camera solutions can be configured to meet your demanding mission critical applications. AIRS has the flexibility to match the optical prescription of your lenses. We have the facilities and technical expertise to install filters and other optics in the cold space. We can rapidly build a 640 camera solution to your specifications to enable researchers to explore new boundaries.



		Sen	sor		
Sensor	640 HOT SLS MWIR	640 InSb MWIR	640 SLS LWIR	640 SLS BBIR	
Resolution		640 >	< 512		
Response	2-5µm	1-5µm	7.5-10µm	3-10µm	
Sensor Type	HOT SLS @ 120K	InSb @ 77K	SLS @ 70K	SLS @ 70K	
NEdT	<25mK	Typical	<30mł	< Typical	
Pixel Pitch		15μm			
		Electr	onics		
Frame Rate		Up to	120Hz		
Integration Time		20µs to 98%	6 full frame		
Integration Type		Integrate-V	While-Read		
A/D Resolution		16-	bit		
Video Output		Multiple, see Nyx	Connect Options		
Communication		Serial over Camera Lin	k, USB3 Vision, or GigE		
		Ор	tics		
Cold Filter	3.0 cut-on, 3.4 cut-on, 7.5 cut-on, Custom Options Available			ailable	
Lens Options	25, 50, 100mm, custom options available				
Mounting Type	Bayonet, M80, or custom				
Lens MTF Data	Available on request				
		Mech	anical		
Size Without Lens	(L x W x H) 6 x 3.5 x 4 in				
Weight Without	Approximately 3 lbs. Approximately 5 lbs.			nately 5 lbs.	
Lens or Handle		-		-	
Cool Down Time	5 minute	es typical		es typical	
Cooler Type		Linear and rotary coo			
MTTF		Linear >20,000 hrs.			
Camera Mount		1/4 - 20 star	•		
		Environ			
Operating Temp		-20°C to			
Storage Temp	-50°C to + 70°C				
		Electrical			
Input Voltage			cooler dependent		
Steady State Power	15W @ 23°C Typical	20W @ 23°C Typical	22W @ 23°C Typical	22W @ 23°C Typical	
Max Power	30W	35W	35W	35W	
		Control ar	•		
Nyx Connect		tware for Windows offer		•	
	additional video options. Please see the video processing options data sheet.				

AIRS Smart IDCAs

AIRS Smart IDCAs make integration easy for OEMs. AIRS offers the flexibility to customize a sensor for your application. Smart IDCAs are perfect for camera manufacturers, hyperspectral imaging applications, airborne gimbals, and space solutions. Smart IDCAs are designed to allow engineers to focus on their system without having to engineer FPA control functions. AIRS has the technical expertise to configure a solution to your needs including: cryocooler, optical prescription, mechanical packaging, cold space optics, and video output. Our smart IDCAs work with Nyx Connect[™] for ease of integration. If you have specialized requirements, please call us and our engineers will be happy to discuss a solution.



Sensors	640 SLS MWIR	640 InSb MWIR	640 SLS LWIR	640 SLS BBIR
	Optical Interface			
Cold Shield	f/1 to f/6 Customizable			
Cold Filter	Bandpass per custor	mer requirements		
	C	oolers (several linear	and rotary options)	
MTTF Integral Rotary	> 8,000 hours			
MTTF Split Linear	> 20,000 hours			
	Mechanical			
Packaging	To customer specifications			
	Environmental			
Operating Temp	-20°C to +60°C			
Storage Temp	-50C° to +70C°			
	Video & Control			
Frame Rate	Up to 120Hz			
Nyx Connect		AIRS Nyx Connect [™] software for Windows offers 4 levels of connectivity and control with additional video options. Please see the video processing options		

AIRS 640 IDCAs

Our 640 IDCAs are for OEMs and system engineers who want to use their own electronic solution to operate the FPA. As with our Smart IDCAs, we can configure a solution to your mission.



AIRS Extended SWIR and Vis-SWIR Smart IDCAs

AIRS extended SWIR and Vis-SWIR Smart IDCAs are designed for ease of integration into hyperspectral instruments, gimbal payloads, and other OEM systems. AIRS has the technical expertise to configure a solution to your needs including customized optical interface, order sorting/blocking filter mounting, precise optical alignment, and custom packaging. We have the capabilities to mount CFE optics in the cold space.



	Sensor		
Sensor	Extended SWIR	Vis-SWIR	
Resolution	640 x 512	640 x 512	
Response	0.9-2.5µm	0.4-2.5μm	
Sensor Type	HOT MCT @ 180K	HOT MCT @ 180K	
Pixel Pitch		15µm	
		Electronics	
Frame Rate	Up to 12	20Hz, faster with windowing	
Integration Type	Integrate-While-Rea	ad; Integrate-Then-Read; Rolling Shutter	
A/D Resolution		16-bit	
Video Output	Un	corrected Camera Link	
Communication	Se	erial over Camera Link	
	Optics		
F Number	To customer specifications		
Cold Filtering	To customer specifications		
	Mechanical		
Weight	Approximately 2 lbs.		
Cool Down Time	4 minutes typical		
Cooler Type		Linear Cooler	
MTTF		>20,000 hrs.	
		Environmental	
Operating Temp		-20°C to + 50°C	
Storage Temp		-50°C to + 70°C	
	Electrical		
Input Voltage Cooler		12V	
Input Voltage Electronics		5V	
Steady State Power	4W @ 23°C Typical		
Max Power	8W		



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