

OBION COUNTY SCHOOL DISTRICT
1700 N. Fifth St
Union City, TN 38261
REQUEST FOR BID FOR
Camera Products
DATE DUE:
September 28, 2021, 1:00 P.M. CST

Right to Reject

The Customer reserves the right to accept or reject any proposals or sections thereof when the rejection is in the best interest of the Obion County Board of Education.

Response Submission

Responses to this bid request must be submitted in sealed packages with the label "Camera Products" on the outside and delivered to 1700 N. Fifth St, Union City, TN 38261 no later than 1:00 P.M. on September 28, 2021. The Obion County School District will reject all late arrivals.

Technical questions and specifications for this request should be addressed to:

Joseph Lewis or Brad Barbour
Co-Technology Coordinators
1700 N. Fifth St
Union City, TN 38261
Phone: 731-885-9743
Fax: 731-885-4902
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Introduction:

The Obion County Board of Education is seeking bids for camera equipment. We ask that each item includes individual pricing. We will use this bid as a catalog to purchase equipment from as needed. **All quoted prices on cameras and cabling are to include assembly, configuration, shipping, handling charges and installation. Vendor agrees to honor these prices from the day the bid is awarded until June 30th, 2022.**

Comparable products of other manufacturers will be considered if proof of comparability is contained in their proposal. ***Vendors, if proposing equipment other than specified, are to clearly identify the manufacturer and the model number and must provide written, complete justification as to how the product complies with all specifications highlighted within this bid request, as well as the complete list of specifications related to the requested products.***

It shall be the responsibility of the proposers to furnish descriptive literature with their proposal such that specifications, catalog pages, brochures or other data will provide an adequate basis for verifying the quality and functional capabilities of the product offered. Failure to provide this data will be considered valid justification for rejection of the proposal.

AWARD: Award will be based with cost most heavily weighted. Award will be made to the most responsive, responsible proposer(s) meeting all specifications and which present the product that is in the best interest of Obion County Schools. Best value means more than low cost. It includes the initial cost, product quality, vendor support, warranty, and other factors detailed herein.

Products List and Specifications:

Product One: ACC 7 STD to ENT Edition UPG

Quantity: 143

Specifications: Upgrade license

Product Two: Multisensor Camera 270 degrees

Quantity: 1

Specifications:

	4K (8.0 MP)
Image Sensor	1/2.5" progressive scan CMOS
Active Pixels	3840 × 2160
3 × image sensor, max resolution	11520 × 2160
4 × image sensor, max resolution	15360 × 2160
Aspect ratio	16:9
IR Illumination - Optional (high power 850 nm LEDs)	30m (98 ft) maximum distance at 0 lux when camera is mounted at 4m (13ft) o the ground
Minimum Illumination	0.2 lux (F1.8) in color mode
	0.04 lux (F1.8) in mono mode
	0 lux with optional IR illuminator
Dynamic Range	100 dB, true WDR, dual exposure
3D Noise Reduction Filter	Yes
Image Rate– Analytics	
Enabled on All Sensors	
3x Image Sensor	12 / 13 fps
(60 Hz/50 Hz)	
4x Image Sensor	8 / 8 fps
3x Image Sensor	15 / 14 fps

(60 Hz/50 Hz)		
4x Image Sensor	10 / 10 fps	
(60 Hz/50 Hz)		
Lens and Horizontal Field of View		
	4mm f1.8 – 101°	
	5.2mm f1.8 – 70°	
	Remote focus	
IMAGE CONTROL	Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG
	Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG
	Motion Detection	Selectable sensitivity and threshold
	Electronic Shutter Control	Automatic, Manual (1/8 to 1/8000 sec)
	Iris Control	Fixed
	Day/Night Control	Automatic, Manual
	Flicker Control	60 Hz, 50 Hz
	White Balance	Automatic, Manual
	Backlight Compensation	Adjustable
	Privacy Zones	Up to 64 zones
	Audio Compression Method	G.711 PCM 8 kHz
	Audio Input/Output	Line level input and output
	External I/O Terminals	Alarm In, Alarm Out
NETWORK	Network	Gigabit Ethernet, 1000BASE-TX
	Cabling Type	CAT5E
	Connector	RJ-45
	API	ONVIF® compliance Profile S and Profile T (www.onvif.org)
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
	Protocol	IPv4, IPv6, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP
	Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP
	Device Management	SNMP v2c, SNMP v3
USB Port	USB 2.0	
Onboard Storage	MicroSD/microSDHC/microSDX C slot – class 10/UHS-1 or better recommended	

Product Three: Indoor/Outdoor Pendant Wall Mount

Quantity: 1

Specifications:

3/4" NPT conduit entry

Product Four: Outdoor pendant mount adapter

Quantity: 1

Product Five: Dome bubble and cover, for outdoor surface mount or pendant mount, clear

Quantity: 1

Product Six: Optional IR illuminator ring, up to 30m (100ft)

Quantity: 1

Product Seven: Aluminum corner mounting bracket for dome cameras using a pendant wall mount and bullet cameras.

Quantity: 1

Product Eight: In-Ceiling Dome Camera

Quantity: 1

Specifications:

	IMAGE PERFORMANCE	4.0 MP
	Image Sensor	
	Max Resolution (H x V) and Aspect Ratio	(16:9) 2560 x 1440 (4:3) 2304 x 1728
Dynamic Range	WDR Off	83 dB
	WDR On	126 dB
	Max Image Rate	(50 Hz/60 Hz): 25 fps/30 fps

	Bandwidth Management	HDSM SmartCodec technology; Idle scene mode
	3D Noise Reduction Filter	Yes
	LENS AND IR ILLUMINATION	3.3 – 9 MM
IR Illumination		
Max Distance1 (high power 850 nm LEDs)	Dome	35 m (115 ft), full tele 15 m (49 ft), full wide
	Bullet	50 m (164 ft), full tele 30 m (98 ft), full wide
Minimum Illumination	2 MP	0.027 lux in color mode, 0.014 lux in monochrome mode, 0 lux with IR
	4 MP	0.03 lux in color mode, 0.015 lux in monochrome mode, 0 lux with IR
	5 MP	N/A
	6 MP	N/A
	8 MP	N/A
Horizontal Angle of View Based on Aspect Ratio	2 MP	(16:9) 34° – 99°
	4 MP	(16:9)(4:3) 34° – 92°
	5 MP	N/A
	6 MP	N/A
	8 MP	N/A
Vertical Angle of View Based on Aspect Ratio	2 MP	(16:9) 18° – 53°
	4 MP	(16:9) 18° – 50° (4:3) 25° – 68°
	5 MP	N/A
	6 MP	N/A
	8 MP	N/A
	Max Aperture	F1.3

	Control	P-Iris, Remote Focus and Zoom
IMAGE CONTROL		
Image Compression Method	H.264 HDSM SmartCodec,H.265 HDSM SmartCodec,MotionJPEG	
Streaming	Multi-stream H.264,Multi-stream H.265,MotionJPEG; HDSM™ 2.0 on4.0 MP, 5.0 MP,6.0 MP,and4K (8.0 MP) cameras	
Motion Detection	Pixelmotion:Selectable sensitivity andthreshold. Classifiedobject detection	
Camera Tamper Detection		
	Yes	
Electronic Shutter Control	Automatic,Manual(1/7 to 1/8196 sec)	
Iris Control	Automatic,Open,Closed	
Day/Night Control	Automatic,Manual	
Flicker Control	60 Hz, 50 Hz	
WhiteBalance	Automatic,Manual	
Backlight Compensation		
	Adjustable	
Privacy Zones	Upto64 zones	
NETWORK		
Network	100BASE-TX, RJ45 Connector,CAT5eCabling	
ONVIF	ONVIF complianceversion1.02,2.00,ProfileS,ProfileT,Profile G (www.onvif.org)	
Security	Passwordprotection, HTTPS encryption,digest authentication, WS authentication,user access log,802.1x port based authentication,FIPS 140-2 L1 (withoptional cameralicense),FIPS 140-2 L3 (with optionalaccessory)	
Protocols	IPv6,IPv4,HTTP,HTTPS,SOAP,DNS,NTP,RTSP,RTCP,RTP,TCP,UDP,IGMP, ICMP,DHCP,Zeroconf,ARP,HSTS	
Streaming Protocols	RTP/UDP,RTP/UDP multicast,RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP,RTP/RTSP/HTTPS/TCP, HTTP	
Device Management Protocols		
	SNMP v2c,SNMP v3	

PERIPHERALS			
USB Port	USB 2.0		
Onboard Storage	Dome	microSD/microSDHC/microSDXC slot –videoclass cardrequired.Class V10 or better recommended.	
	Bullet and Box	SD/SDHC/SDXC slot –videoclass cardrequired.Class V10 or better recommended.	
AUXILIARY I/O			
Audio Compression Method	G.711 PCM 8 kHz,Opus		
Audio Input/Output	Line levelinput andoutput		
External I/O Terminals	Alarm In,Alarm Out		
RS-485 Terminal	Yes, Box cameraonly		
MECHANICAL (DOME)	INDOOR SURFACE MOUNT	INDOOR IN-CEILING MOUNT	OUTDOOR SURFACE MOUNT
Dimensions (LxWxH)	163 mm x 163 mm x 118 mm; 6.4" x 6.4" x 4.7"	181 mm x 181 mm x 164 mm; 7.1" x 7.1" x 6.5"	163 mm x 163 mm x 121 mm; 6.4" x 6.4" x 4.8"
Weight	0.99 kg(2.18 lbs)	1.64 kg (3.62 lbs)	1.39 kg(3.06 lbs)
Dome Bubble	Polycarbonate		
Body	Plastic,Aluminum		Aluminum
Housing	Surfacemount,tamper resistant	Recessedmount,tamper resistant	Surface mount,vandalresistant
Finish	Plastic,injection molded,closetoRAL9002	Plastic,gray;Aluminum,powder coat,black	Cast,powder coated,closetoRAL9002

Product Nine: Surface mount outdoor dome camera

Quantity: 1

Specifications:

IMAGE PERFORMANCE		4.0 MP
Image Sensor		
Max Resolution (H x V) and Aspect Ratio		(16:9) 2560 x 1440 (4:3) 2304 x 1728
Dynamic Range	WDR Off	83 dB
	WDR On	126 dB
Max Image Rate		(50 Hz/60 Hz): 25 fps/30 fps
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode
3D Noise Reduction Filter		Yes
LENS AND IR ILLUMINATION		3.3 – 9 MM
IR Illumination		
Max Distance¹ (high power 850 nm LEDs)	Dome	35 m (115 ft), full tele 15 m (49 ft), full wide
	Bullet	50 m (164 ft), full tele 30 m (98 ft), full wide
Minimum Illumination	2 MP	0.027 lux in color mode, 0.014 lux in monochrome mode, 0 lux with IR
	4 MP	0.03 lux in color mode, 0.015 lux in monochrome mode, 0 lux with IR
	5 MP	N/A
	6 MP	N/A
	8 MP	N/A
Horizontal Angle of View Based on Aspect Ratio		
	2 MP	(16:9) 34° – 99°
	4 MP	(16:9)(4:3) 34° – 92°
	5 MP	N/A
	6 MP	N/A

	8 MP	N/A
Vertical Angle of View Based on Aspect Ratio	2 MP	(16:9) 18° – 53°
	4 MP	(16:9) 18° – 50° (4:3) 25° – 68°
	5 MP	N/A
	6 MP	N/A
	8 MP	N/A
	Max Aperture	F1.3
	Control	P-Iris, Remote Focus and Zoom
IMAGE CONTROL		
Image Compression Method	H.264 HDSM SmartCodec,H.265 HDSM SmartCodec,MotionJPEG	
Streaming	Multi-stream H.264,Multi-stream H.265,MotionJPEG; HDSM™ 2.0 on4.0 MP, 5.0 MP,6.0 MP,and4K (8.0 MP) cameras	
Motion Detection	Pixelmotion:Selectable sensitivity andthreshold. Classifiedobject detection	
Camera Tamper Detection	Yes	
Electronic Shutter Control	Automatic,Manual(1/7 to 1/8196 sec)	
Iris Control	Automatic,Open,Closed	
Day/Night Control	Automatic,Manual	
Flicker Control	60 Hz, 50 Hz	
White Balance	Automatic,Manual	
Backlight Compensation	Adjustable	
Privacy Zones	Upto64 zones	
NETWORK		
Network	100BASE-TX, RJ45 Connector,CAT5eCabling	

ONVIF	ONVIF compliance version 1.02, 2.00, Profile S, Profile T, Profile G (www.onvif.org)		
Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, FIPS 140-2 L1 (with optional camera license), FIPS 140-2 L3 (with optional accessory)		
Protocols	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP, HSTS		
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP		
Device Management Protocols	SNMP v2c, SNMP v3		
PERIPHERALS			
USB Port	USB 2.0		
Onboard Storage	Dome	microSD/microSDHC/microSDXC slot – video speed class card required. Class V10 or better recommended.	
	Bullet and Box	SD/SDHC/SDXC slot – video speed class card required. Class V10 or better recommended.	
AUXILIARY I/O			
Audio Compression Method	G.711 PCM 8 kHz, Opus		
Audio Input/Output	Line level input and output		
External I/O Terminals	Alarm In, Alarm Out		
RS-485 Terminal	Yes, Box camera only		
MECHANICAL (DOME)	INDOOR SURFACE MOUNT	INDOOR IN-CEILING MOUNT	OUTDOOR SURFACE MOUNT
Dimensions (LxWxH)	163 mm x 163 mm x 118 mm; 6.4" x 6.4" x 4.7"	181 mm x 181 mm x 164 mm; 7.1" x 7.1" x 6.5"	163 mm x 163 mm x 121 mm; 6.4" x 6.4" x 4.8"
Weight	0.99 kg (2.18 lbs)	1.64 kg (3.62 lbs)	1.39 kg (3.06 lbs)
Dome Bubble	Polycarbonate		
Body	Plastic, Aluminum		Aluminum

Housing	Surfacemount,tamper resistant	Recessedmount,tamper resistant	Surface mount,vandalresistant
Finish	Plastic,injection molded,closetoRAL9002	Plastic,gray;Aluminum,powder coat,black	Cast,powder coated,closetoRAL9002

Product Ten: Dual Head Camera

Quantity: 1

Specifications:

IMAGE PERFORMANCE		2 × 3.0 MP
Image Sensor		1/2.7" progressive scan CMOS
Max Resolution (H x V) and Aspect Ratio		(4:3) 2048 x 1536
2x Image Sensor, Max Resolution		4096 x 1536
Dynamic Range	WDR Off:	Up to 82 dB
	WDR On:	Up to 120 dB
Max Image Rate (60 Hz/50 Hz)	Analytics 1	24 / 25 fps
	High Framerate mode	30 / 25 fps
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode
3D Noise Reduction Filter		Yes
LENS AND IR ILLUMINATION		
Lens	3.35 - 7.0 mm, F/1.93 remote focus and zoom	
IR Illumination	Wide: 15 m (49 ft)	
(high power 850 nm LEDs)	Tele: 30 m (98 ft)	
Minimum Illumination	0.1 lux in color mode, 0.05 lux in monochrome mode, 0 lux with IR on	
Horizontal Angle of View	43° – 91°	
Vertical Angle of View	32° – 67°	
IMAGE CONTROL		

Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG
Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG
Motion Detection	Pixel motion: Selectable sensitivity and threshold. Classified object detection
Camera Tamper Detection	Yes, when analytics are enabled
Electronic Shutter Control	Automatic, Manual (1/7.5 to 1/8000 sec)
Iris Control	N/A
Day/Night Control	Automatic, Manual
Flicker Control	50 Hz, 60 Hz
White Balance	Automatic, Manual
Backlight Compensation	Adjustable
Privacy Zones	Up to 64 zones
NETWORK	
Network	100BASE-TX, RJ45 Connector, CAT5e Cabling
ONVIF	ONVIF compliance version Profile S and Profile T (www.onvif.org)
Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, FIPS 140-2 L1 (with optional camera license)
Protocols	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP, HSTS
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP
Device Management Protocols	SNMP v2c, SNMP v3
PERIPHERALS	
USB Port	USB 2.0
Onboard Storage	2 x microSD/microSDHC/microSDXC slots – video speed class card required. Class V10 or better recommended.
AUXILIARY I/O	
Audio Compression Method	Opus, G.711 PCM 8 kHz
Audio Input/Output	Line level input and output
External I/O Terminals	Alarm In, Alarm Out

Product Eleven: Multisensor Camera 180 degrees

Quantity: 1

Specifications:

	4K (8.0 MP)	
Image Sensor	1/2.5" progressive scan CMOS	
Active Pixels	3840 × 2160	
3 × image sensor, max resolution	11520 × 2160	
4 × image sensor, max resolution	15360 × 2160	
Aspect ratio	16:9	
IR Illumination - Optional (high power 850 nm LEDs)	30m (98 ft) maximum distance at 0 lux when camera is mounted at 4m (13ft) off the ground	
Minimum Illumination	0.2 lux (F1.8) in color mode 0.04 lux (F1.8) in mono mode 0 lux with optional IR illuminator	
Dynamic Range	100 dB, true WDR, dual exposure	
3D Noise Reduction Filter	Yes	
Image Rate– Analytics		
Enabled on All Sensors		
3x Image Sensor (60 Hz/50 Hz)	12 / 13 fps	
4x Image Sensor	8 / 8 fps	
3x Image Sensor (60 Hz/50 Hz)	15 / 14 fps	
4x Image Sensor (60 Hz/50 Hz)	10 / 10 fps	
Lens and Horizontal Field of View	4mm f1.8 – 101° 5.2mm f1.8 – 70° Remote focus	
IMAGE CONTROL	Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG

	Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG
	Motion Detection	Selectable sensitivity and threshold
	Electronic Shutter Control	Automatic, Manual (1/8 to 1/8000 sec)
	Iris Control	Fixed
	Day/Night Control	Automatic, Manual
	Flicker Control	60 Hz, 50 Hz
	White Balance	Automatic, Manual
	Backlight Compensation	Adjustable
	Privacy Zones	Up to 64 zones
	Audio Compression Method	G.711 PCM 8 kHz
	Audio Input/Output	Line level input and output
	External I/O Terminals	Alarm In, Alarm Out
NETWORK	Network	Gigabit Ethernet, 1000BASE-TX
	Cabling Type	CAT5E
	Connector	RJ-45
	API	ONVIF® compliance Profile S and Profile T (www.onvif.org)
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
	Protocol	IPv4, IPv6, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP
	Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP
	Device Management	SNMP v2c, SNMP v3
USB Port	USB 2.0	
Onboard Storage	MicroSD/microSDHC/microSDXC slot – class 10/UHS-1 or better recommended	

Product Twelve: Bullet Camera

Quantity: 1

Specifications:

IMAGE PERFORMANCE		6.0 MP
Image Sensor		
Max Resolution (H x V) and Aspect Ratio		(16:9) 3200 x 1800 (3:2) 3072 x 2048
Dynamic Range	WDR Off	85 dB
	WDR On	120 dB
Max Image Rate		(50 Hz/60 Hz): 25 fps/30 fps
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode
3D Noise Reduction Filter		Yes
LENS AND IR ILLUMINATION		4.9 – 8 MM
IR Illumination Max Distance¹ (high power 850 nm LEDs)	Dome	30 m (98 ft), full tele
		15 m (49 ft), full wide
	Bullet	50 m (164 ft), full tele
		30 m (98 ft), full wide
Minimum Illumination	2 MP	N/A
	4 MP	N/A
	5 MP	N/A
	6 MP	0.055 lux in color mode, 0.028 lux in monochrome mode, 0 lux with IR
	8 MP	0.055 lux in color mode, 0.028 lux in monochrome mode, 0 lux with IR
Horizontal Angle of View Based on Aspect Ratio	2 MP	N/A
	4 MP	N/A
	5 MP	N/A
	6 MP	(16:9) 52° – 92°; (3:2) 41° – 73°

	8 MP	(16:9) 52° – 92°
Vertical Angle of View Based on		
Aspect Ratio	2 MP	N/A
	4 MP	N/A
	5 MP	N/A
	6 MP	(16:9) 29° – 51°; (3:2) 27° – 48°
	8 MP	(16:9) 29° – 51°
	Max Aperture	F1.8
	Control	P-Iris, Remote Focus and Zoom
IMAGE CONTROL		
Image Compression Method	H.264 HDSM SmartCodec,H.265 HDSM SmartCodec,MotionJPEG	
Streaming	Multi-stream H.264,Multi-stream H.265,MotionJPEG; HDSM™ 2.0 on4.0 MP, 5.0 MP,6.0 MP,and4K (8.0 MP) cameras	
Motion Detection	Pixelmotion:Selectable sensitivity andthreshold. Classifiedobject detection	
Camera Tamper Detection	Yes	
Electronic Shutter Control	Automatic,Manual(1/7 to 1/8196 sec)	
Iris Control	Automatic,Open,Closed	
Day/Night Control	Automatic,Manual	
Flicker Control	60 Hz, 50 Hz	
WhiteBalance	Automatic,Manual	
Backlight Compensation	Adjustable	
Privacy Zones	Upto64 zones	
NETWORK		
Network	100BASE-TX, RJ45 Connector,CAT5eCabling	
ONVIF	ONVIF complianceversion1.02,2.00,Profile S,ProfileT,Profile G (www.onvif.org)	

Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, FIPS 140-2 L1 (with optional camera license), FIPS 140-2 L3 (with optional accessory)	
Protocols	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP, HSTS	
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP	
Device Management Protocols	SNMP v2c, SNMP v3	
PERIPHERALS		
USB Port	USB 2.0	
Onboard Storage	Dome	microSD/microSDHC/microSDXC slot – video speed class card required. Class V10 or better recommended.
	Bullet and Box	SD/SDHC/SDXC slot – video speed class card required. Class V10 or better recommended.

Product Thirteen: Bullet Camera

Quantity: 1

Specifications:

	IMAGE PERFORMANCE	8.0 MP (4K ULTRA HD)
	Image Sensor	1/1.8" progressive scan CMOS
	Max Resolution (H x V) and Aspect Ratio	(16:9) 3840 x 2160
Dynamic Range	WDR Off	85 dB
	WDR On	120 dB
	Max Image Rate	(50 Hz/60 Hz): 25 fps/30 fps
	Bandwidth Management	HDSM SmartCodec technology; Idle scene mode
	3D Noise Reduction Filter	Yes
	LENS AND IR ILLUMINATION	4.9 – 8 MM
IR Illumination	Max Distance	30 m (98 ft), full tele 15 m (49 ft), full wide
	Dome	

(high power 850 nm LEDs)		
	Bullet	50 m (164 ft), full tele 30 m (98 ft), full wide
Minimum Illumination	2 MP	N/A
	4 MP	N/A
	5 MP	N/A
	6 MP	0.055 lux in color mode, 0.028 lux in monochrome mode, 0 lux with IR
	8 MP	0.055 lux in color mode, 0.028 lux in monochrome mode, 0 lux with IR
Horizontal Angle of View Based on Aspect Ratio		
	2 MP	N/A
	4 MP	N/A
	5 MP	N/A
	6 MP	(16:9) 52° – 92°; (3:2) 41° – 73°
	8 MP	(16:9) 52° – 92°
Vertical Angle of View Based on Aspect Ratio		
	2 MP	N/A
	4 MP	N/A
	5 MP	N/A
	6 MP	(16:9) 29° – 51°; (3:2) 27° – 48°
	8 MP	(16:9) 29° – 51°
	Max Aperture	F1.8
	Control	P-Iris, Remote Focus and Zoom
IMAGE CONTROL		
Image Compression Method	H.264 HDSM SmartCodec,H.265 HDSM SmartCodec,MotionJPEG	
Streaming	Multi-stream H.264,Multi-stream H.265,MotionJPEG; HDSM™ 2.0 on4.0 MP, 5.0 MP,6.0 MP,and4K (8.0 MP) cameras	

MotionDetection	Pixelmotion:Selectable sensitivity andthreshold. Classifiedobject detection
Camera Tamper Detection	Yes
Electronic Shutter Control	Automatic,Manual(1/7 to 1/8196 sec)
Iris Control	Automatic,Open,Closed
Day/Night Control	Automatic,Manual
Flicker Control	60 Hz, 50 Hz
WhiteBalance	Automatic,Manual
Backlight Compensation	Adjustable
Privacy Zones	Upto64 zones
NETWORK	
Network	100BASE-TX, RJ45 Connector,CAT5eCabling
ONVIF	ONVIF complianceversion1.02,2.00,Profile S,ProfileT,Profile G (www.onvif.org)
Security	Passwordprotection, HTTPS encryption,digest authentication, WS authentication,user access log,802.1x port based authentication,FIPS 140-2 L1 (withoptional cameralicense),FIPS 140-2 L3 (with optionalaccessory)
Protocols	IPv6,IPv4,HTTP,HTTPS,SOAP,DNS,NTP,RTSP,RTCP,RTP,TCP,UDP,IGMP, ICMP,DHCP,Zeroconf,ARP,HSTS
StreamingProtocols	RTP/UDP,RTP/UDP multicast,RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP,RTP/RTSP/HTTPS/TCP, HTTP
DeviceManagement Protocols	SNMP v2c,SNMP v3
PERIPHERALS	
USB Port	USB 2.0
OnboardStorage	microSD/microSDHC/microSDXC slot – videospeed class cardrequired.Class V10 or better recommended.
Dome	SD/SDHC/SDXC slot –videospeed class cardrequired.Class V10 or better recommended.
Bullet and Box	SD/SDHC/SDXC slot –videospeed class cardrequired.Class V10 or better recommended.

Product Fourteen: Bullet Camera Junction Box

Quantity: 1

Specifications:

- Low profile junction box specifically designed to fit with the Bullet Camera
- Offers 2x 3/4" NPT cable entry holes for cable connections
- Meets IP66 weather rating

Product Fifteen: Enterprise Camera License

Quantity: 1

Specifications:

Enterprise license for camera integration

Product Sixteen: Cabling

Quantity: 1

Specifications:

Cat6 cabling with patch panels and keystone to be included.

Keystone Specifications:

Application 2	The Cat6 Keystone Jack have been designed to support their respective protocol with Cat6 and Cat5E being backwards compatible with existing network infrastructure.
Colour	Green (GN)
Pack Cont.	1pc.
Package	
Quantity per	bag
Performance	
Category	Category 6 (Class E)
Port count	1
Product Family	Category 6 Jacks
Product Group	Keystone Jacks
Specifications	
UL Listed (US and Canada)	Yes

UL Recognized (US and Canada)	No
UL-File Number	E216789
Depth (D)	42.0mm
Height (H)	23.0mm
Width (W)	19.0mm

Cable Specifications:

ANSI/TIA Category	6
Cable Component Type	Horizontal
Cable Type	U/UTP (unshielded)
Conductor Type, singles	Solid
Conductors, quantity	8
Jacket Color	Green
Note	All electrical transmission tests include swept frequency measurements
Pairs, quantity	4
Separator Type	Tape separator
Transmission Standards	ANSI/TIA-568.2-D CENELEC EN 50288-6-1 ISO/IEC 11801 Class E
Cable Length	304.8 m 1000 ft
Diameter Over Conductor	1.054 mm 0.0415 in
Diameter Over Jacket, nominal	5.588 mm 0.22 in
Jacket Thickness	0.508 mm 0.02 in
Conductor Gauge, singles	23 AWG
Characteristic Impedance	100 ohm
dc Resistance Unbalance, maximum	5 %
dc Resistance, maximum	8 ohms/100 m 2.438 ohms/100 ft

Delay Skew, maximum	30 ns
Dielectric Strength, minimum	1500 Vac 2500 Vdc
Mutual Capacitance at Frequency	5.6 nF/100 m @ 1 kHz
Nominal Velocity of Propagation (NVP)	69 %
Operating Frequency, maximum	250 MHz
Operating Voltage, maximum	80 V
Remote Powering	Fully complies with the recommendations set forth by IEEE 802.3bt (Type 4) for the safe delivery of power over LAN cable when installed according to ISO/IEC 14763-2, CENELEC EN 50174-1, CENELEC EN 50174-2 or TIA TSB-184-A
Safety Voltage Rating	300 V
Conductor Material	Bare copper
Insulation Material	Polyolefin
Jacket Material	PVC
Separator Material	Polyolefin
Installation temperature	0 °C to +60 °C (+32 °F to +140 °F)
Operating Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Environmental Space	Non-plenum
Flame Test Method	CMR NEC Article 800 UL 1666 UL 444
Cable weight	35.091 kg/km 23.58 lb/kft
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant
CHINA-ROHS	Below maximum concentration value

OBION COUNTY
BOARD OF EDUCATION

1700 N. Fifth St.

Union City, Tennessee 38261

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IRAN DIVESTMENT ACT AFFIDAVIT

As per Tennessee Code Annotated, Title 12, and effective July 1, 2016:

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to § 12-106.

Signature

Date