

Part number:

62513-0101

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November 19, 2012, 06:46 PM

Corporate Headquarters

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Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

Legal disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply.

Information and equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited.



Imaging and optical data

IR resolution	640 × 512 pixels
Thermal sensitivity/NETD	< 0.05°C @ +30°C (+86°F) / 50 mK
Field of view (FOV) / Minimum focus distance	45° × 37° / fixed focus
Focal length	13 mm (0.5 in.)
Spatial resolution (IFOV)	1.31 mrad
F-number	1.25
Image frequency	9 Hz
Focus	Fixed

Detector data

Focal Plane Array (FPA) / Spectral range	Uncooled VOX microbolometer / 7.5–13 μm
Detector pitch	17 μm
Detector time constant	Typical 12 ms

Measurement

Object temperature range	-40 to +160°C (-40 to 320°F)
Accuracy	±5°C (±9°F) or ±5% of reading

Ethernet

Ethernet	Control and image
Ethernet, type	Gigabit Ethernet
Ethernet, standard	IEEE 802.3
Ethernet, connector type	RJ-45
Ethernet, communication	GigE Vision ver. 1.2 Client API GenICam compliant
Ethernet, image streaming	8-bit monochrome @ 9 Hz - Signal linear/ DDE - Automatic/ Manual - Flip H&V 14-bit 640 × 512 pixels @ 9 Hz - Signal linear/ DDE GigE Vision and GenICam compatible
Ethernet, power	Power over Ethernet, PoE IEEE 802.3af class 0 Power
Ethernet, protocols	TCP, UDP, ICMP, IGMP, DHCP, GigE Vision

Digital input/output

Digital input, purpose	General purpose
Digital input	1× opto-isolated, "0" < 2, "1"=2–40 VDC
Digital output, purpose	General purpose Output to ext. device (programmatically set)

1 800 464 6372
CANADA: 1 800 613 0507



FLIR A65 f=13 mm (9 Hz)

P/N: 62513-0101

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Digital input/output

Digital output	1× opto-isolated, 2–40 VDC, max 185 mA
Digital I/O, isolation voltage	500 VRMS
Digital I/O, supply voltage	2–40 VDC, max 200 mA
Digital I/O, connector type	12-pole M12 connector (shared with Digital Synchronization and External power)
Synchronization In, purpose	Frame sync In to control camera
Synchronization In	1×, non-isolated
Synchronization In, type	LVC Buffer @3.3V, "0" <0.8 V, "1">2.0 V.
Synchronization Out, purpose	Frame sync Out to control another Ax5 camera
Synchronization Out	1×, non-isolated
Synchronization Out, type	LVC Buffer @ 3.3V, "0"=24 MA max, "1"= -24 mA max.
Digital Synchronization, connector type	12-pole M12 connector (shared with Digital I/O and External power)

Power system

External power operation	12/24 VDC, <2.5 W absolute max
External power, connector type	12-pole M12 connector (shared with Digital I/O and Digital Synchronization)
Voltage	Allowed range 10–30 VDC

Environmental data

Operating temperature range	-15°C to +50°C (+5°F to +122°F)
Storage temperature range	-40°C to +70°C (-40°F to +158°F)
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)

EMC

- EN 61000-6-2 (Immunity)
- EN 61000-6-3 (Emission)
- FCC 47 CFR Part 15 Class B (Emission)

Encapsulation	IP 40 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)

Physical data

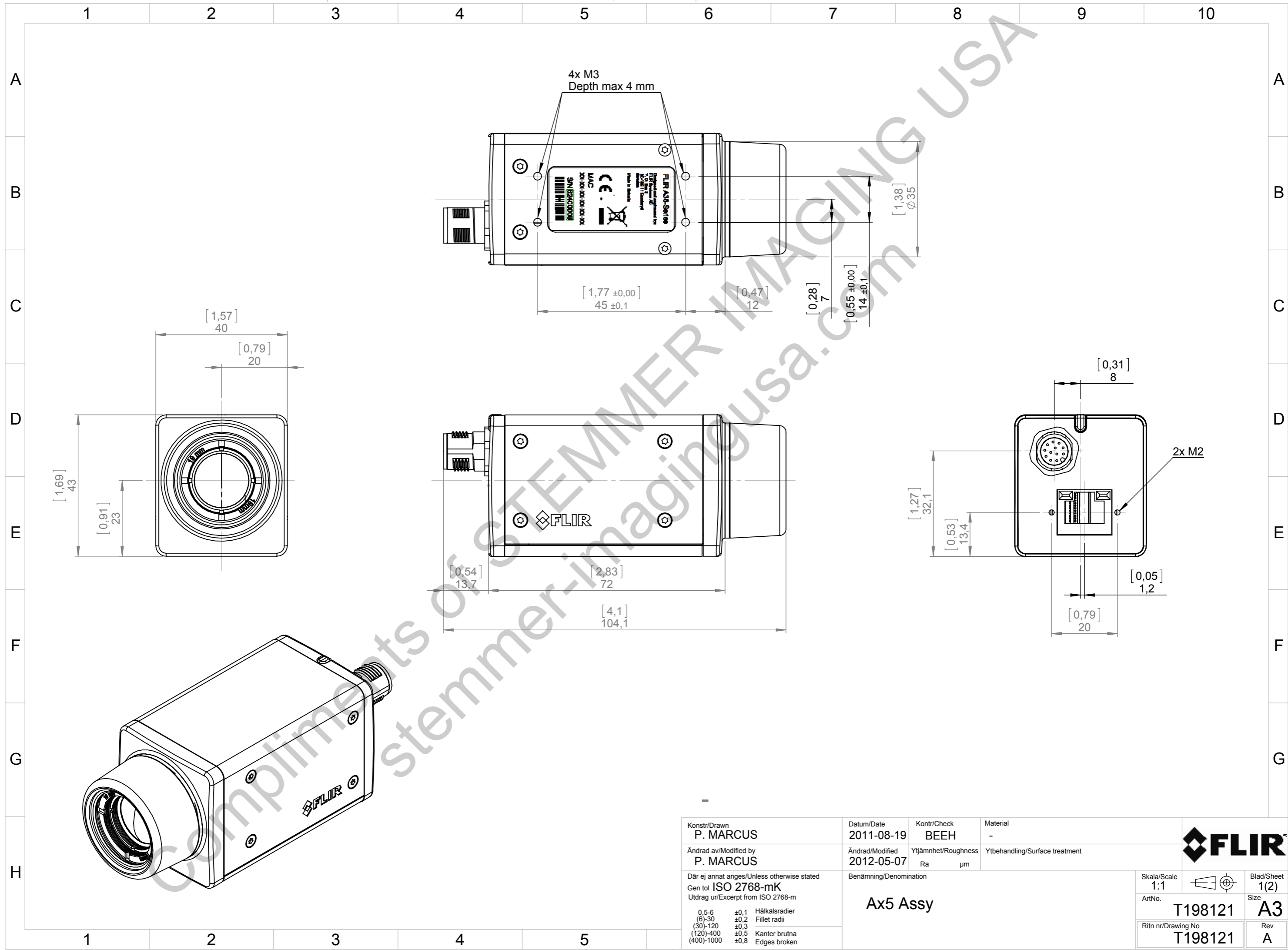
Weight	0.200 kg (0.44 lb.)
Camera size (L × W × H)	106 × 40 × 43 mm (4.2 × 1.6 × 1.7 in.)
Tripod mounting	UNC ¼"-20 (on three sides)
Base mounting	4 × M3 thread mounting holes (bottom)
Housing material	Magnesium and aluminum

Shipping information

- Infrared camera with lens
- Cardboard box
- Downloads brochure
- FLIR Tools download card
- FLIR apps card
- Focus adjustment tool
- Getting started guide
- Important information guide
- Optics brochure
- Registration card
- Service & training brochure
- Thank you card
- User documentation CD-ROM

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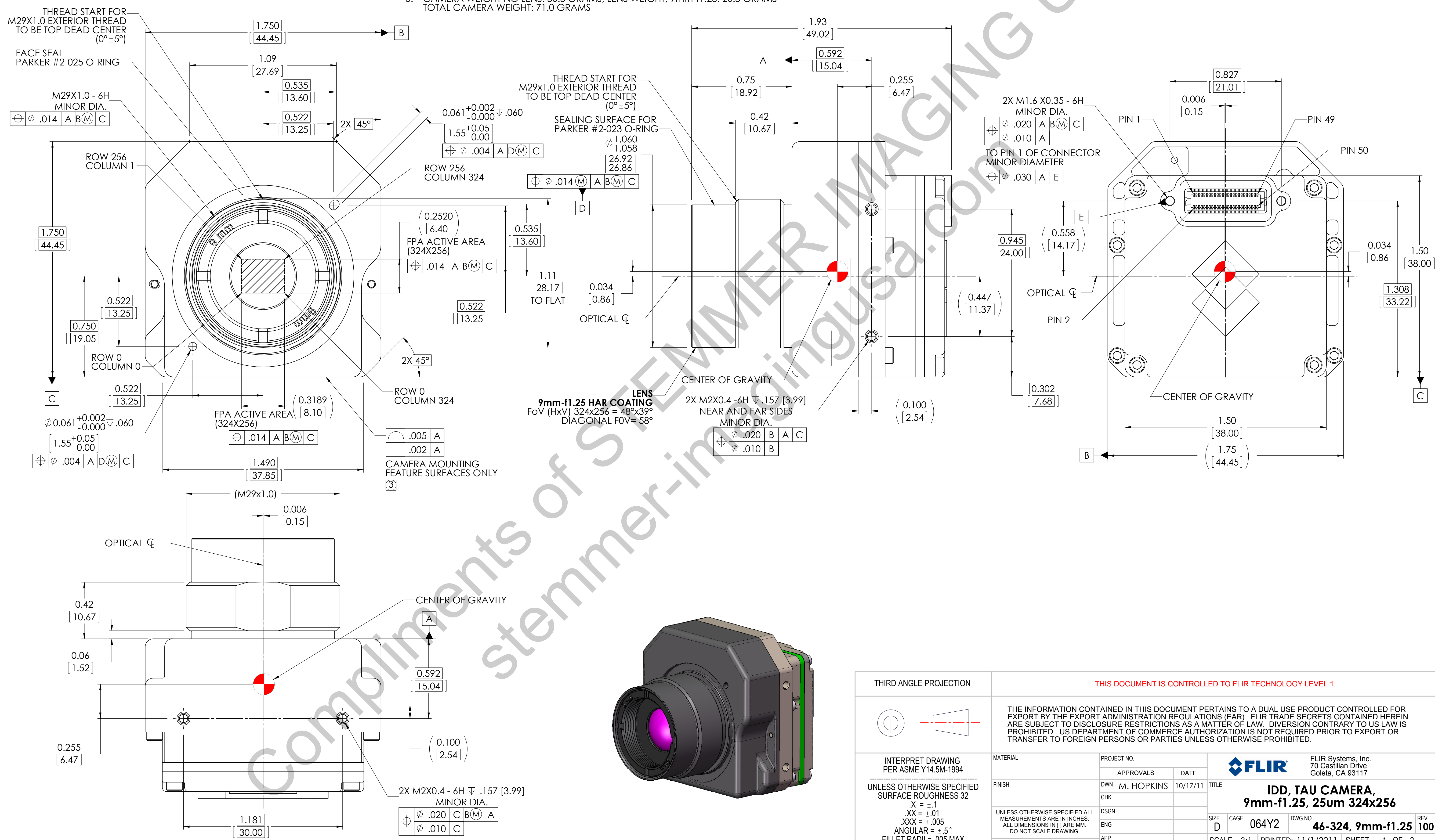


Konstr/Drawn P. MARCUS	Datum/Date 2011-08-19	Kontr/Check BEEH	Material -	
Ändrad av/Modified by P. MARCUS	Ändrad/Modified 2012-05-07	Ytjämnhet/Roughness Ra µm	Ytbehandling/Surface treatment	
Där ej annat anges/Unless otherwise stated Gen tol ISO 2768-mK Utdrag ur/Excerpt from ISO 2768-m	Benämning/Denomination Ax5 Assy		Skala/Scale 1:1	Blad/Sheet 1(2)
0,5-6 ±0,1 Hålkålsradier (6)-30 ±0,2 Fillet radii (30)-120 ±0,3 (120)-400 ±0,5 Kanter brutna (400)-1000 ±0,8 Edges broken			ArtNo. T198121	Size A3
			Ritn nr/Drawing No T198121	Rev A

NOTES: UNLESS OTHERWISE SPECIFIED

- INDICATED DIMENSIONS ARE FOR AN ARRAY SIZE OF 324x256.
- CONNECTOR INTERFACE: HIROSE 50 PIN DF12-50DS-0.5V(86). MATING CONNECTOR P/N DF12(5.0)-50DP-0.5V(86). FOR PIN-OUT DESIGNATIONS SEE TAU CAMERA USERS MANUAL.
- INDICATED TOLERANCES APPLY TO CAMERA MOUNTING SURFACES ONLY. OTHER SURFACES ARE CAST AND HAVE DRAFT.
- INDICATED ALLOWABLE TRAVEL FOR FOCUS.
- CAMERA WEIGHT NO LENS: 50.5 GRAMS, LENS WEIGHT, 9mm-f1.25: 20.5 GRAMS
TOTAL CAMERA WEIGHT: 71.0 GRAMS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	100	INITIAL RELEASE ECN 115992	10/17/11	BC



THIRD ANGLE PROJECTION		THIS DOCUMENT IS CONTROLLED TO FLIR TECHNOLOGY LEVEL 1.			
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INTERPRET DRAWING PER ASME Y14.5M-1994 UNLESS OTHERWISE SPECIFIED SURFACE ROUGHNESS 32 X = ±.1 .XX = ±.01 .XXX = ±.005 ANGULAR = ±.5° FILLET RADII = .005 MAX	MATERIAL	PROJECT NO.	FLIR Systems, Inc. 70 Castilian Drive Goleta, CA 93117		
	FINISH	APPROVALS	DATE	TITLE	
UNLESS OTHERWISE SPECIFIED ALL MEASUREMENTS ARE IN INCHES. ALL DIMENSIONS IN [] ARE MM. DO NOT SCALE DRAWING.	DWN M. HOPKINS	10/17/11	IDD, TAU CAMERA, 9mm-f1.25, 25um 324x256		
CALC WT: 71.00 GRAMS	CHK		SIZE D	CAGE 064Y2	DWG NO. 46-324, 9mm-f1.25 100
	ENG		SCALE 3:1	PRINTED: 11/1/2011	SHEET 1 OF 2
	APP		SOLIDWORKS MODEL: 46-Tau Camera Core MODEL REVISION: B-WC		

DWG NO. 46-324, 9mm-f1.25 SH 1 REV 100

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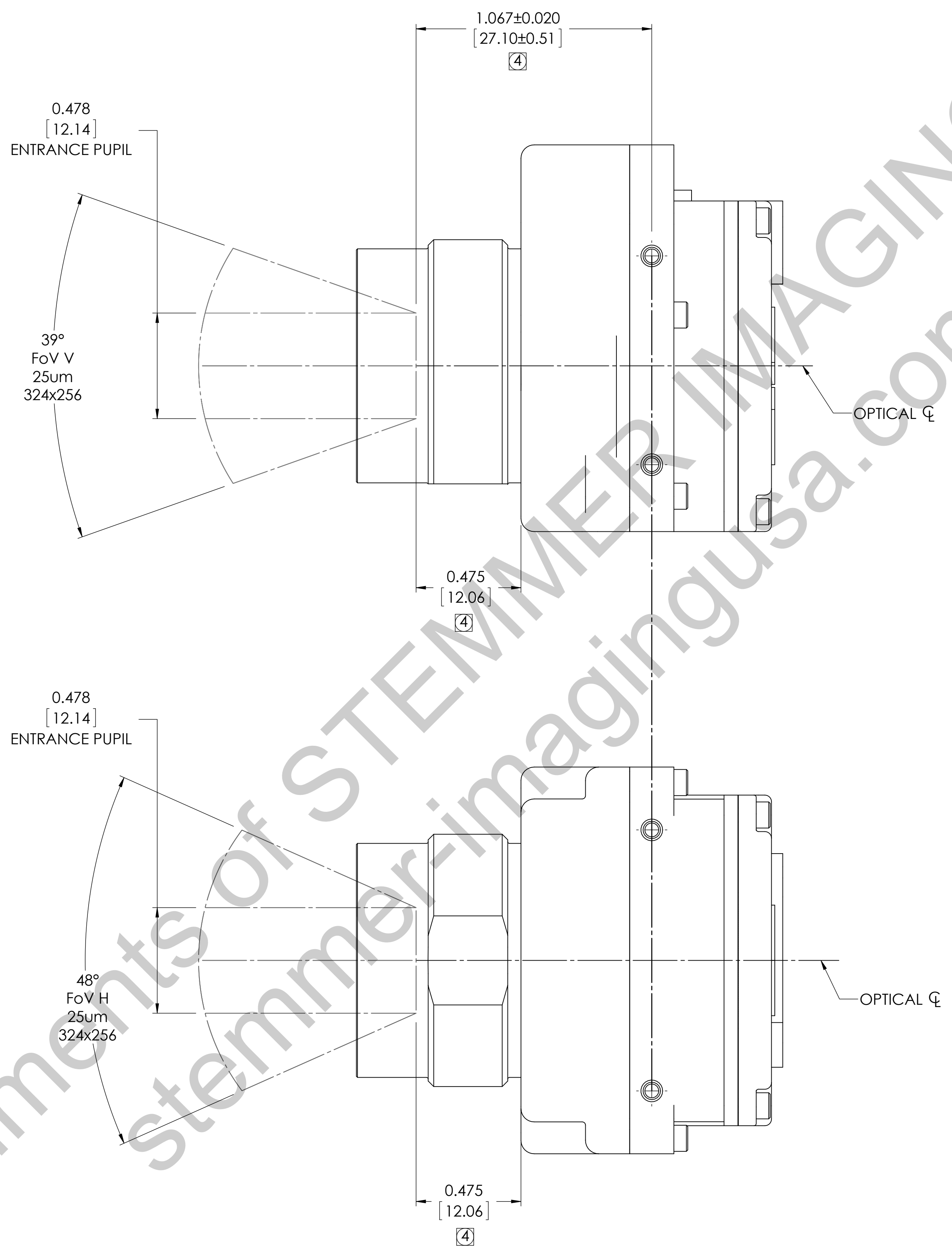
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9 mm-f1.25
324x 256 ARRAY

IDD, TAU CAMERA,
9mm-f1.25, 25um 324x256

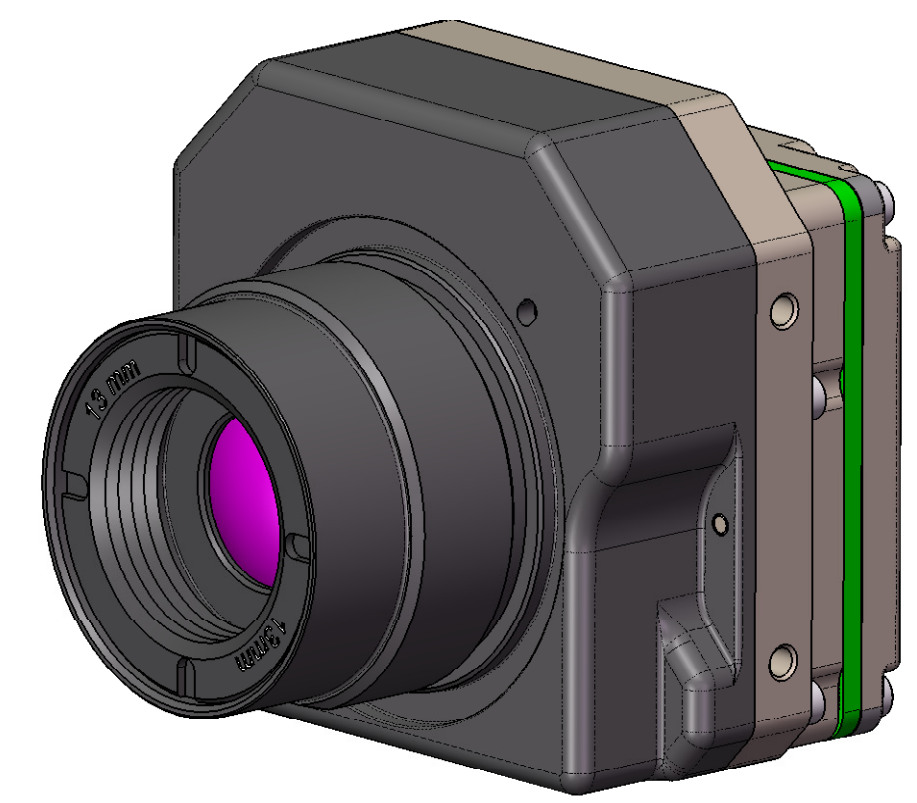
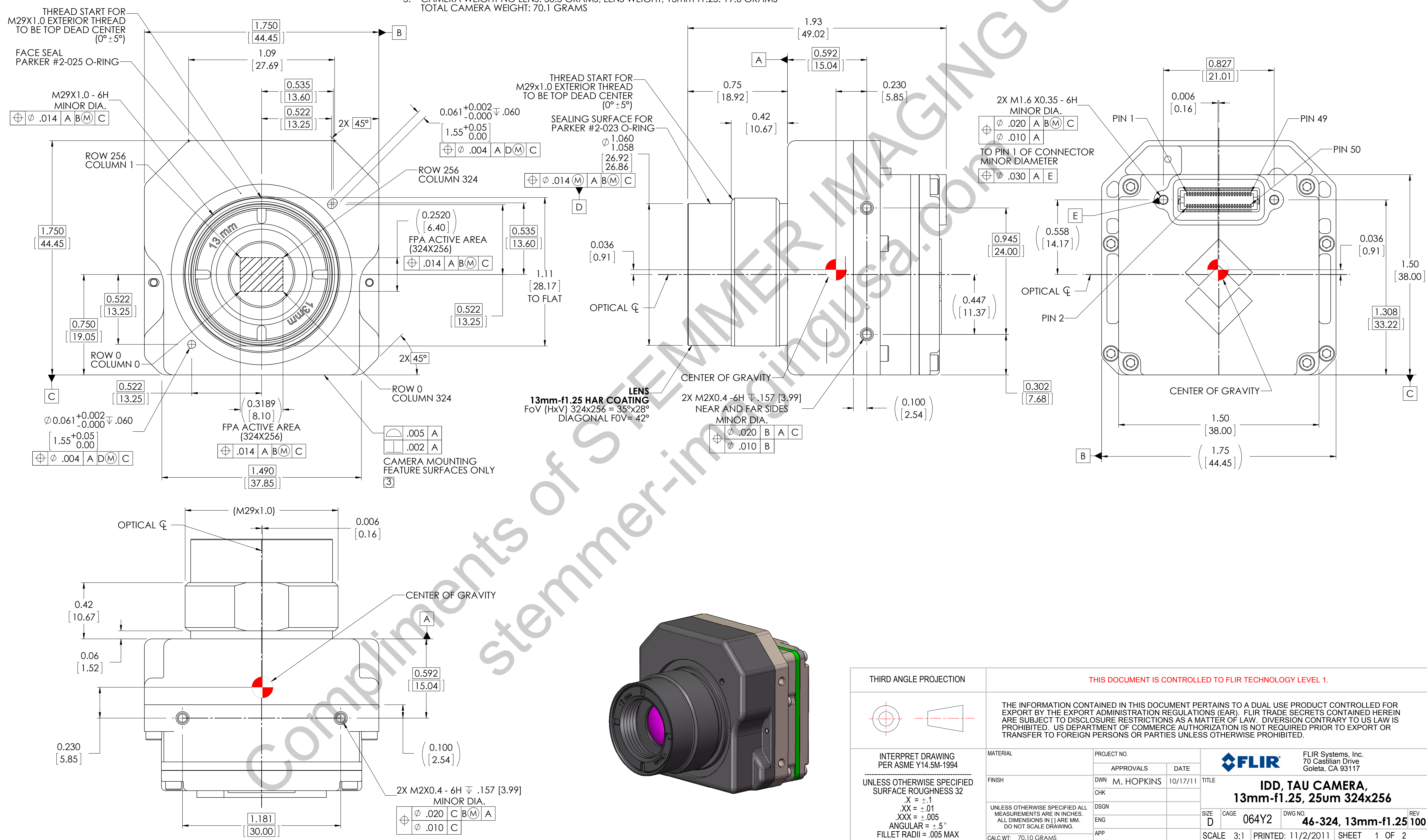
SIZE	CAGE	DWG NO.	REV
D	064Y2	46-324, 9mm-f1.25	100
SCALE 3:1		PRINTED: 11/1/2011	SHEET 2 OF 2
SOLIDWORKS MODEL: 46-Tau Camera Core MODEL REVISION: B-WC			

DWG NO. 46-324, 9mm-f1.25 SH 2 REV 100

NOTES: UNLESS OTHERWISE SPECIFIED

- INDICATED DIMENSIONS ARE FOR AN ARRAY SIZE OF 324x256.
- CONNECTOR INTERFACE: HIROSE 50 PIN DF12-50DS-0.5V(86). MATING CONNECTOR P/N DF12(5.0)-50DP-0.5V(86). FOR PIN-OUT DESIGNATIONS SEE TAU CAMERA USERS MANUAL.
- INDICATED TOLERANCES APPLY TO CAMERA MOUNTING SURFACES ONLY. OTHER SURFACES ARE CAST AND HAVE DRAFT.
- INDICATED ALLOWABLE TRAVEL FOR FOCUS.
- CAMERA WEIGHT NO LENS: 50.5 GRAMS, LENS WEIGHT, 13mm-f1.25: 19.6 GRAMS
TOTAL CAMERA WEIGHT: 70.1 GRAMS

REVISIONS				
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	FINISH	UNLESS OTHERWISE SPECIFIED ALL MEASUREMENTS ARE IN INCHES. ALL DIMENSIONS IN [] ARE MM. DO NOT SCALE DRAWING.		TITLE IDD, TAU CAMERA, 13mm-f1.25, 25um 324x256	
CALC WT: 70.10 GRAMS	SIZE D	CAGE 064Y2	DWG NO. 46-324, 13mm-f1.25 100	REV	1 OF 2

DWG NO. 46-324, 13mm-f1.25 SH 1 REV 100

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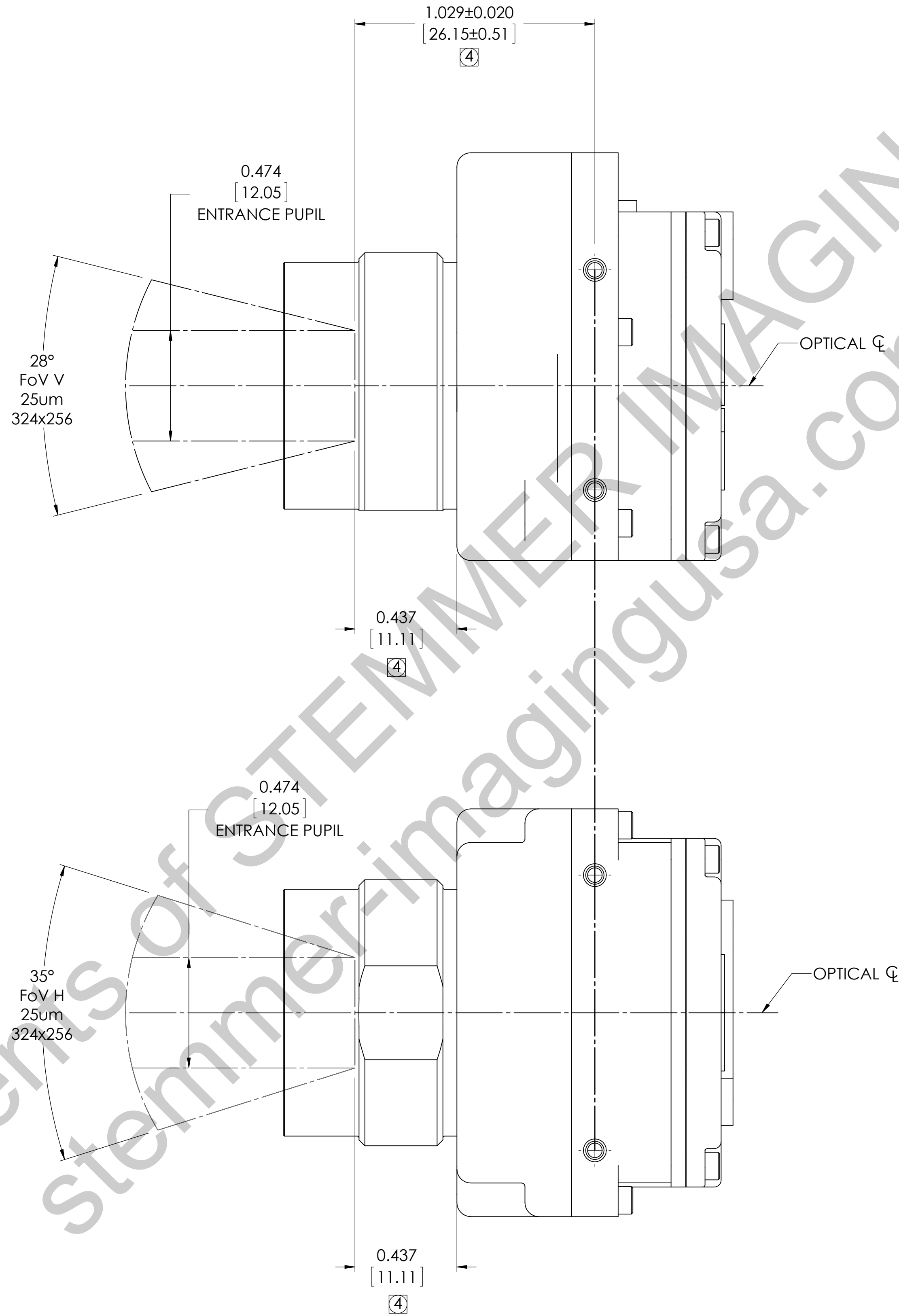
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13 mm-f1.25
324x 256 ARRAY

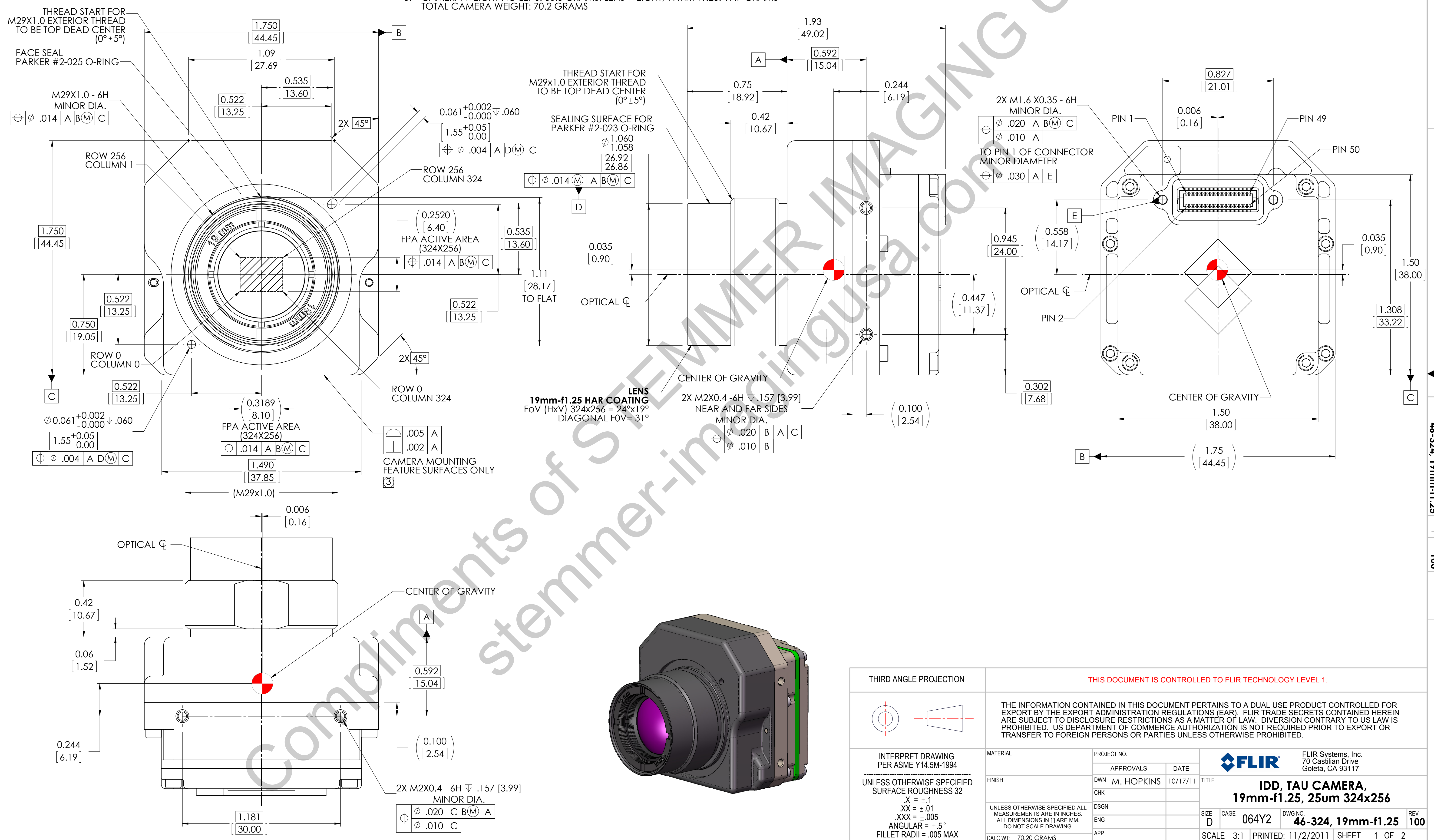
IDD, TAU CAMERA,
13mm-f1.25, 25um 324x256

SIZE	CAGE	DWG NO.	REV
D	064Y2	46-324, 13mm-f1.25	100
SCALE 3:1		PRINTED: 11/2/2011	SHEET 2 OF 2
SOLIDWORKS MODEL: 46-Tau Camera Core MODEL REVISION: B-WC			

NOTES: UNLESS OTHERWISE SPECIFIED

- INDICATED DIMENSIONS ARE FOR AN ARRAY SIZE OF 324x256.
- CONNECTOR INTERFACE: HIROSE 50 PIN DF12-50DS-0.5V(86). MATING CONNECTOR P/N DF12(5.0)-50DP-0.5V(86). FOR PIN-OUT DESIGNATIONS SEE TAU CAMERA USERS MANUAL.
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- INDICATED ALLOWABLE TRAVEL FOR FOCUS.
- CAMERA WEIGHT NO LENS: 50.5 GRAMS, LENS WEIGHT, 19mm-f1.25: 19.7 GRAMS
TOTAL CAMERA WEIGHT: 70.2 GRAMS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
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INTERPRET DRAWING PER ASME Y14.5M-1994 UNLESS OTHERWISE SPECIFIED SURFACE ROUGHNESS 32 X = ±.1 .XX = ±.01 .XXX = ±.005 ANGULAR = ±.5° FILLET RADII = .005 MAX	MATERIAL	PROJECT NO.	APPROVALS DATE DWN M. HOPKINS 10/17/11 CHK DSGN ENG APP		FLIR Systems, Inc. 70 Castilian Drive Goleta, CA 93117
	FINISH	UNLESS OTHERWISE SPECIFIED ALL MEASUREMENTS ARE IN INCHES. ALL DIMENSIONS IN [] ARE MM. DO NOT SCALE DRAWING.	TITLE IDD, TAU CAMERA, 19mm-f1.25, 25um 324x256	SIZE D CAGE 064Y2 SCALE 3:1	DWG NO. 46-324, 19mm-f1.25 REV 100 PRINTED: 11/2/2011 SHEET 1 OF 2
CALC WT: 70.20 GRAMS		SOLIDWORKS MODEL: 46-Tau Camera Core		MODEL REVISION: B-WC	

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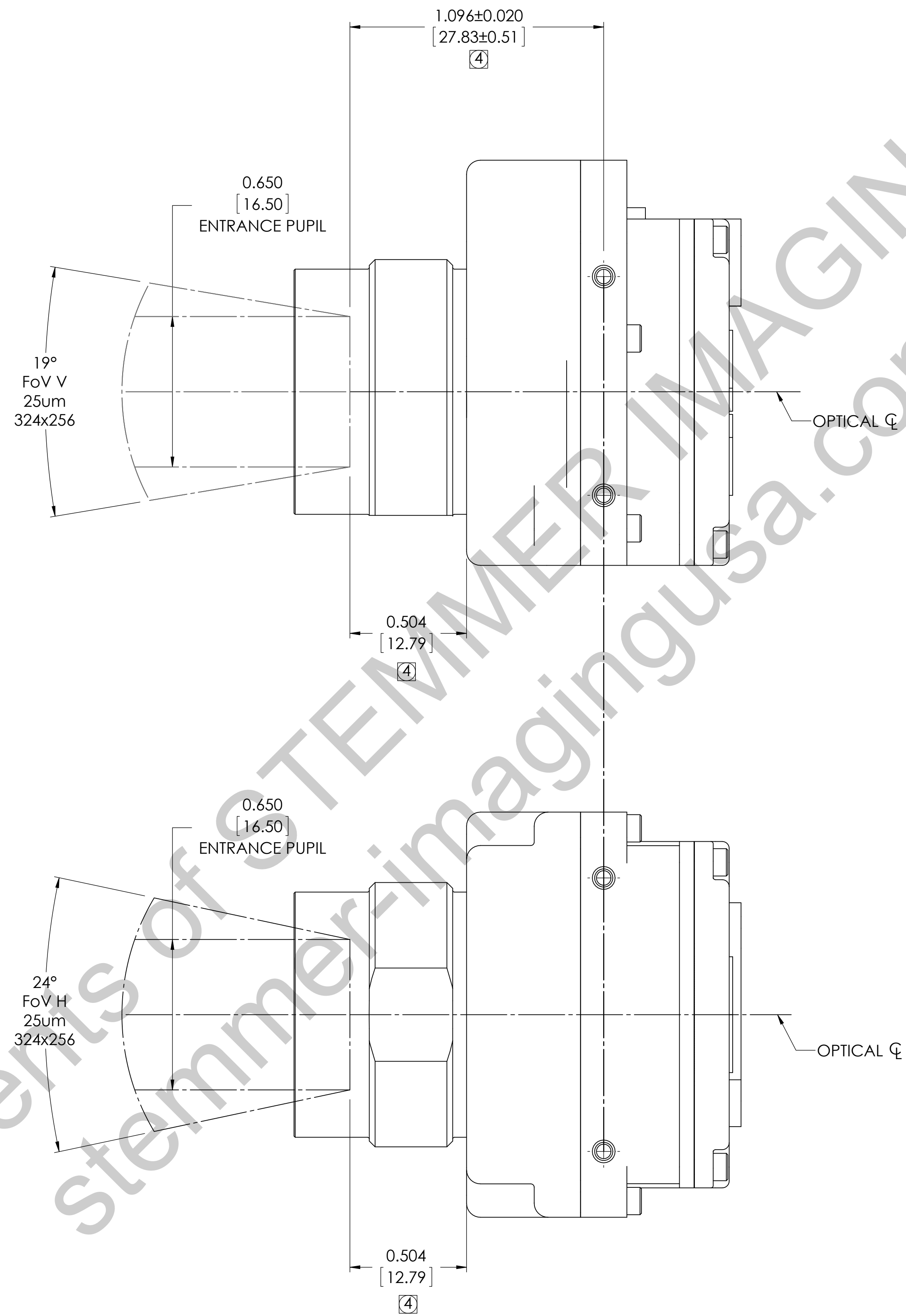
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19 mm-f1.25
324x 256 ARRAY

IDD, TAU CAMERA,
19mm-f1.25, 25um 324x256

SIZE	CAGE	DWG NO.	REV
D	064Y2	46-324, 19mm-f1.25	100
SCALE 3:1		PRINTED: 11/2/2011	SHEET 2 OF 2
SOLIDWORKS MODEL: 46-Tau Camera Core MODEL REVISION: B-WC			

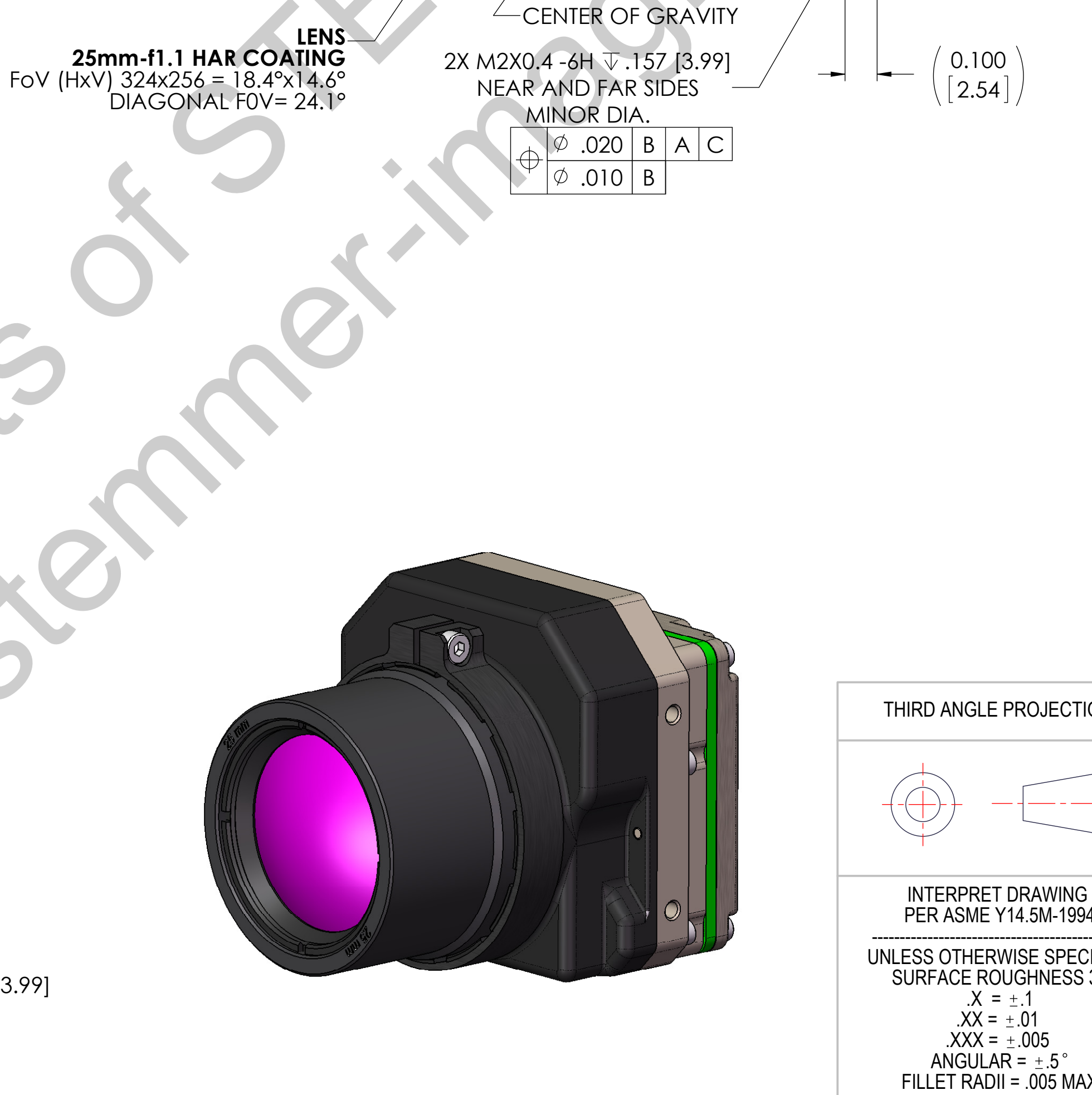
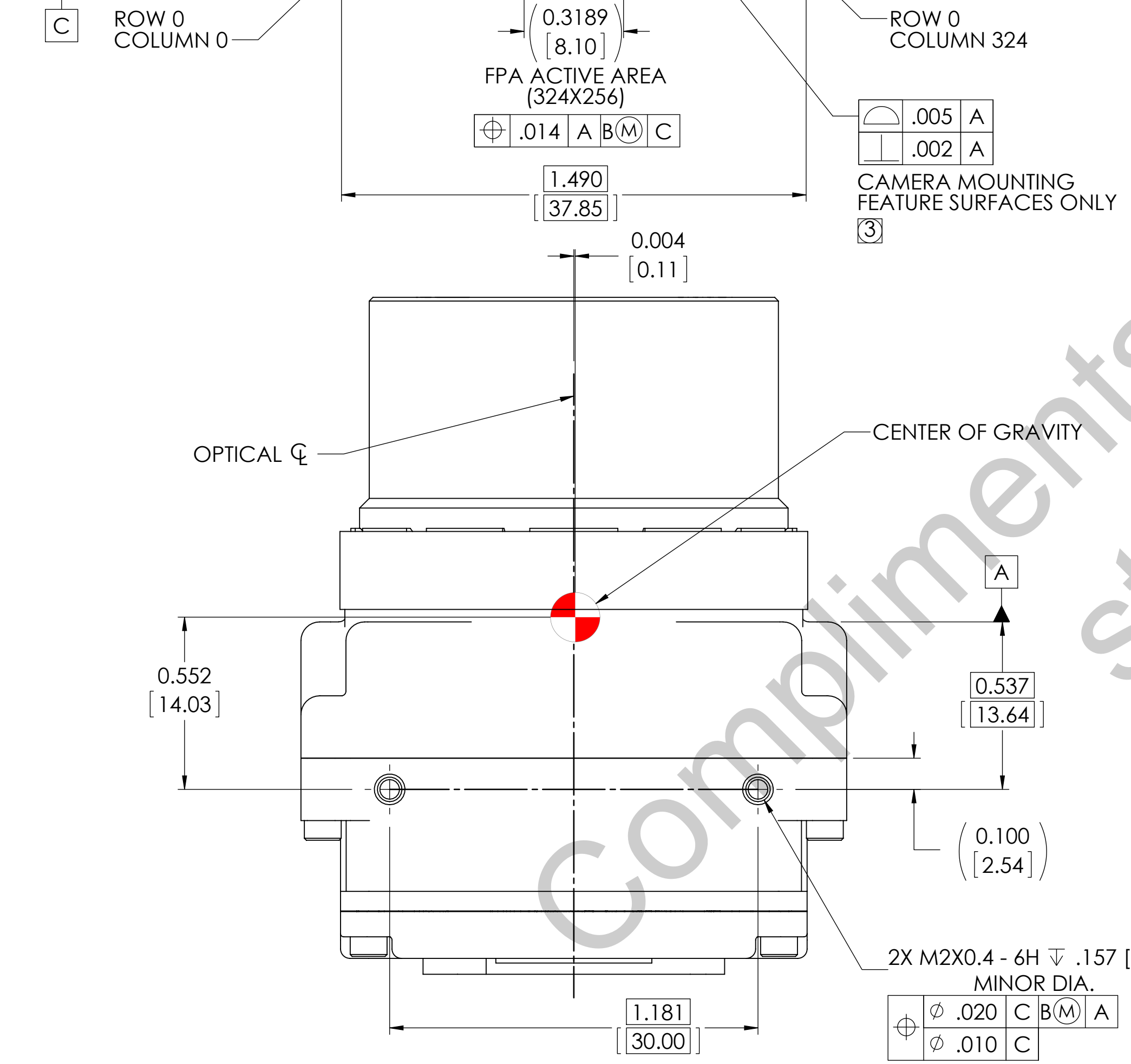
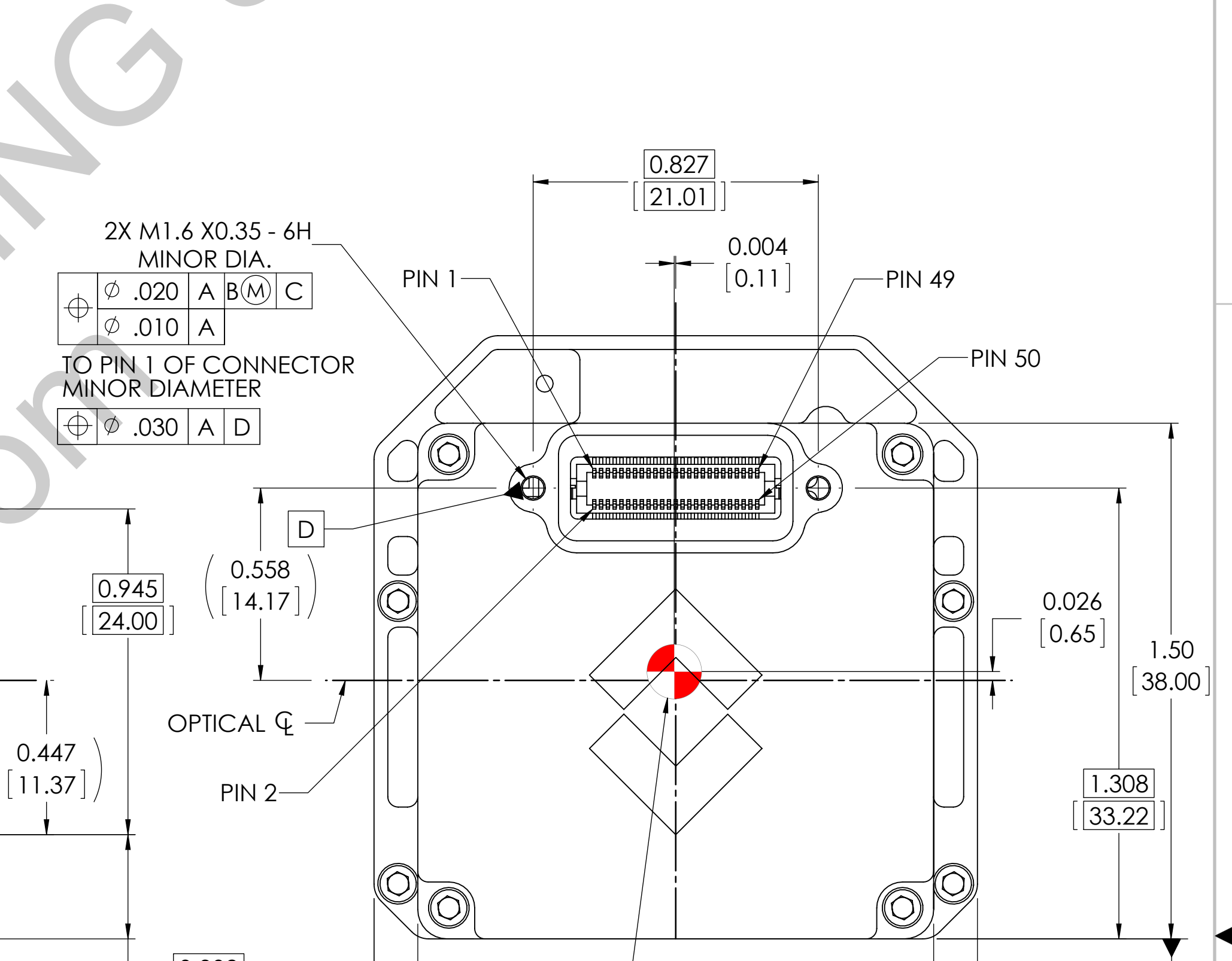
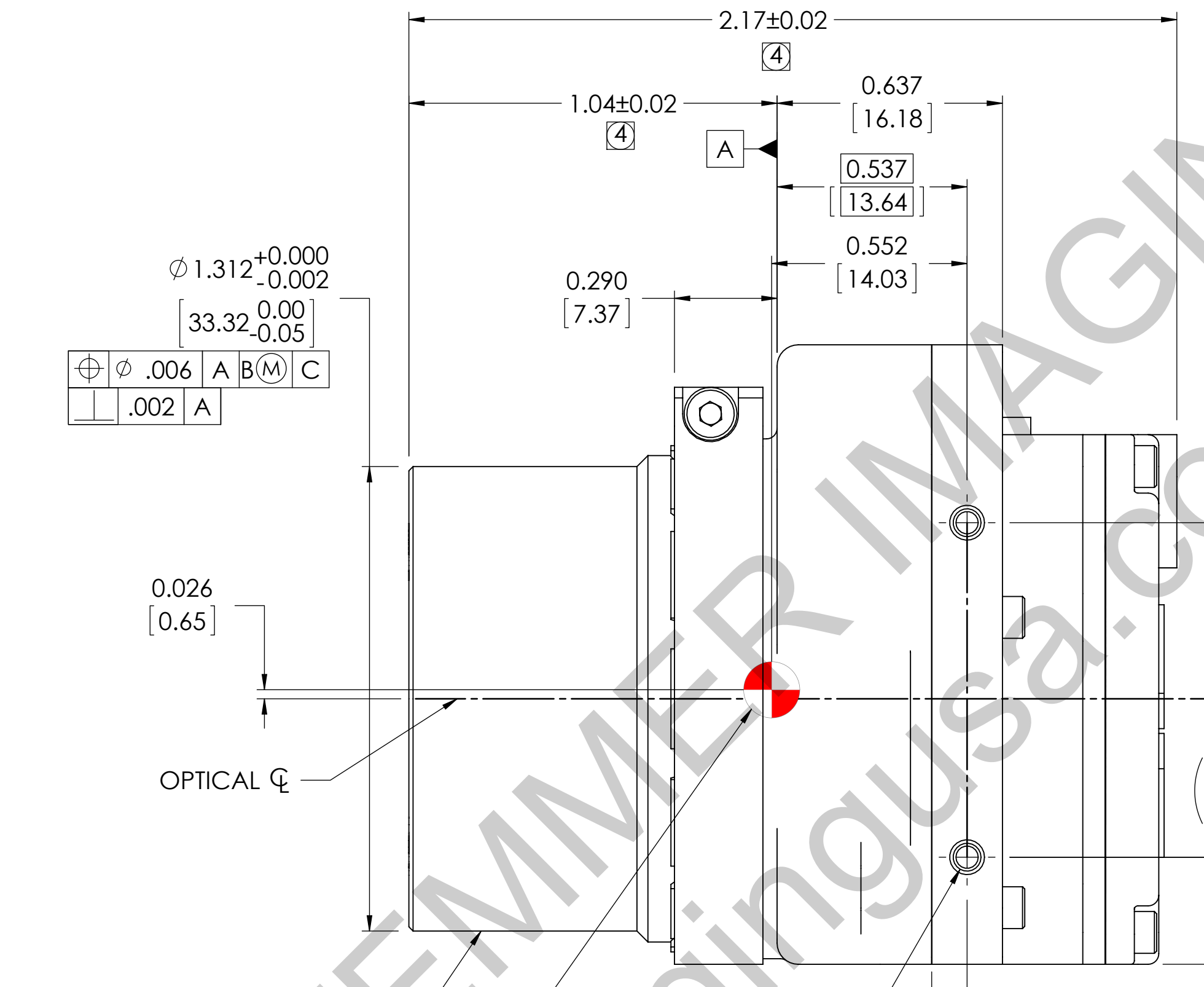
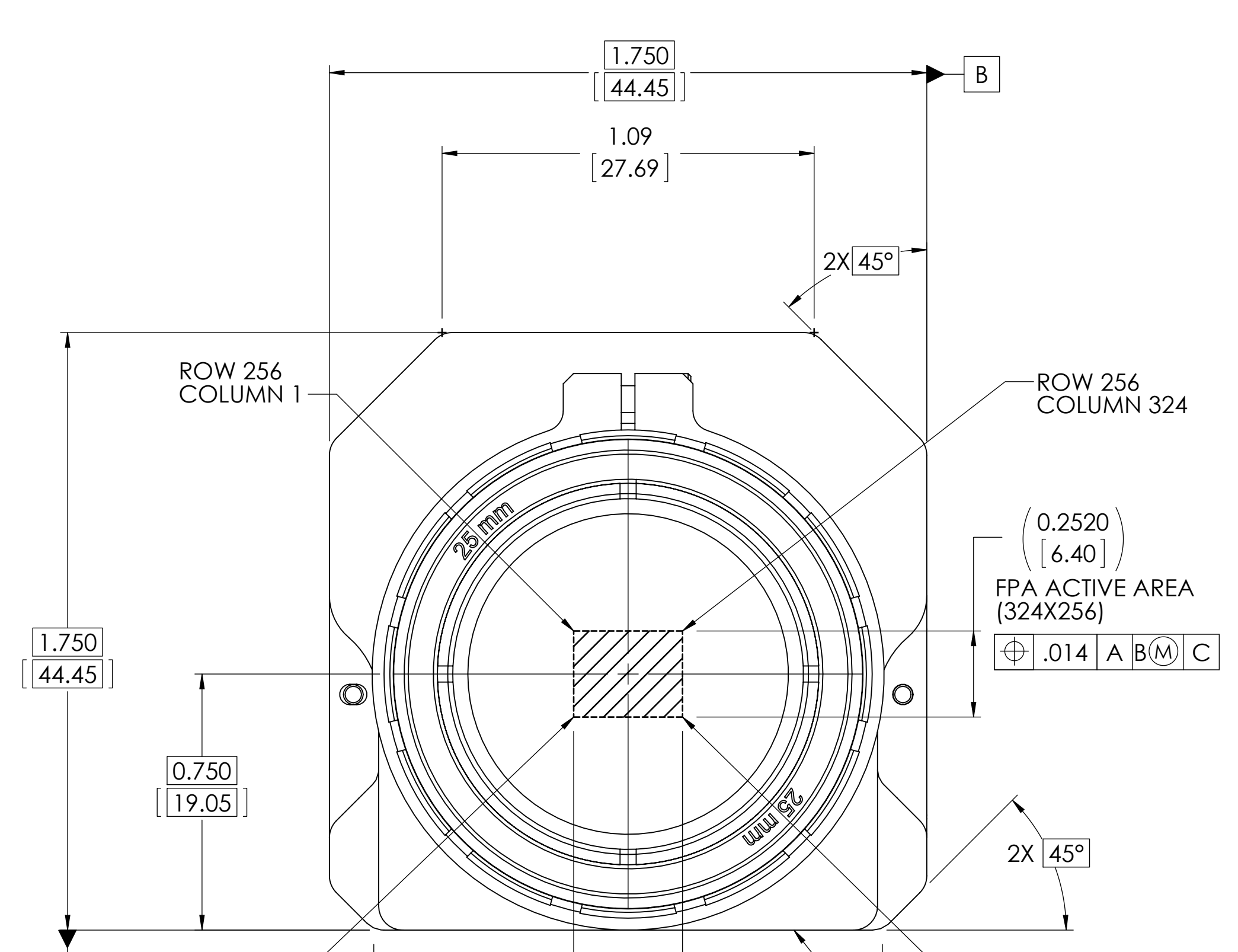
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DWG NO. 46-324, 19mm-f1.25 SH 2 REV 100

NOTES: UNLESS OTHERWISE SPECIFIED

- INDICATED DIMENSIONS ARE FOR AN ARRAY SIZE OF 324x256.
- CONNECTOR INTERFACE: HIROSE 50 PIN DF12-50DS-0.5V(86). MATING CONNECTOR P/N DF12(5.0)-50DP-0.5V(86). FOR PIN-OUT DESIGNATIONS SEE TAU CAMERA USERS MANUAL.
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- INDICATED ALLOWABLE TRAVEL FOR FOCUS.
- CAMERA WEIGHT NO LENS: 52.1 GRAMS, LENS WEIGHT, 25mm-f1.1: 58.9 GRAMS
TOTAL CAMERA WEIGHT: 111.0 GRAMS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	100	INITIAL RELEASE ECN 116015	10/17/11	BC



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DWG NO. 46-324, 25mm-f1.1 SH 1 REV 100

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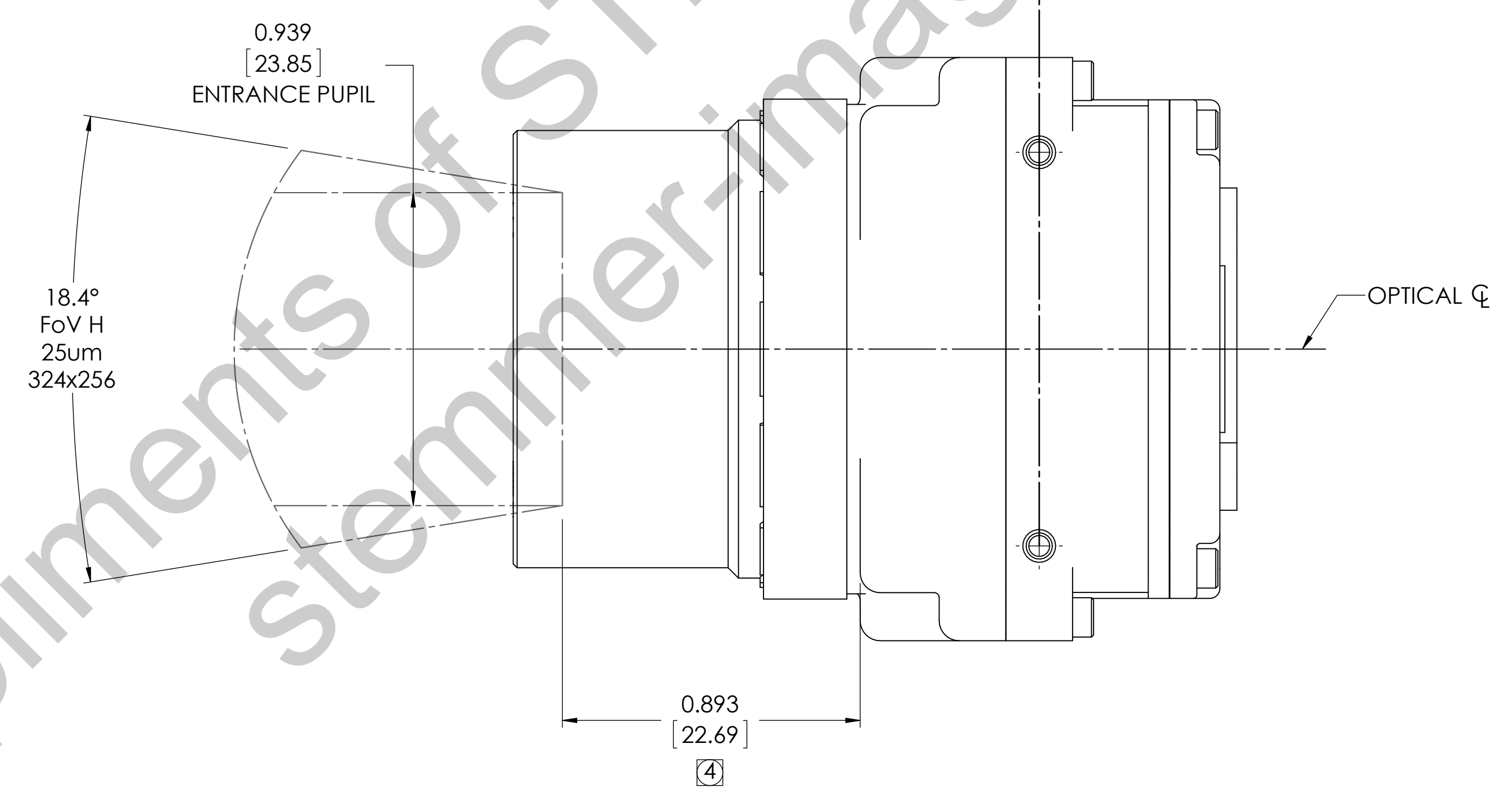
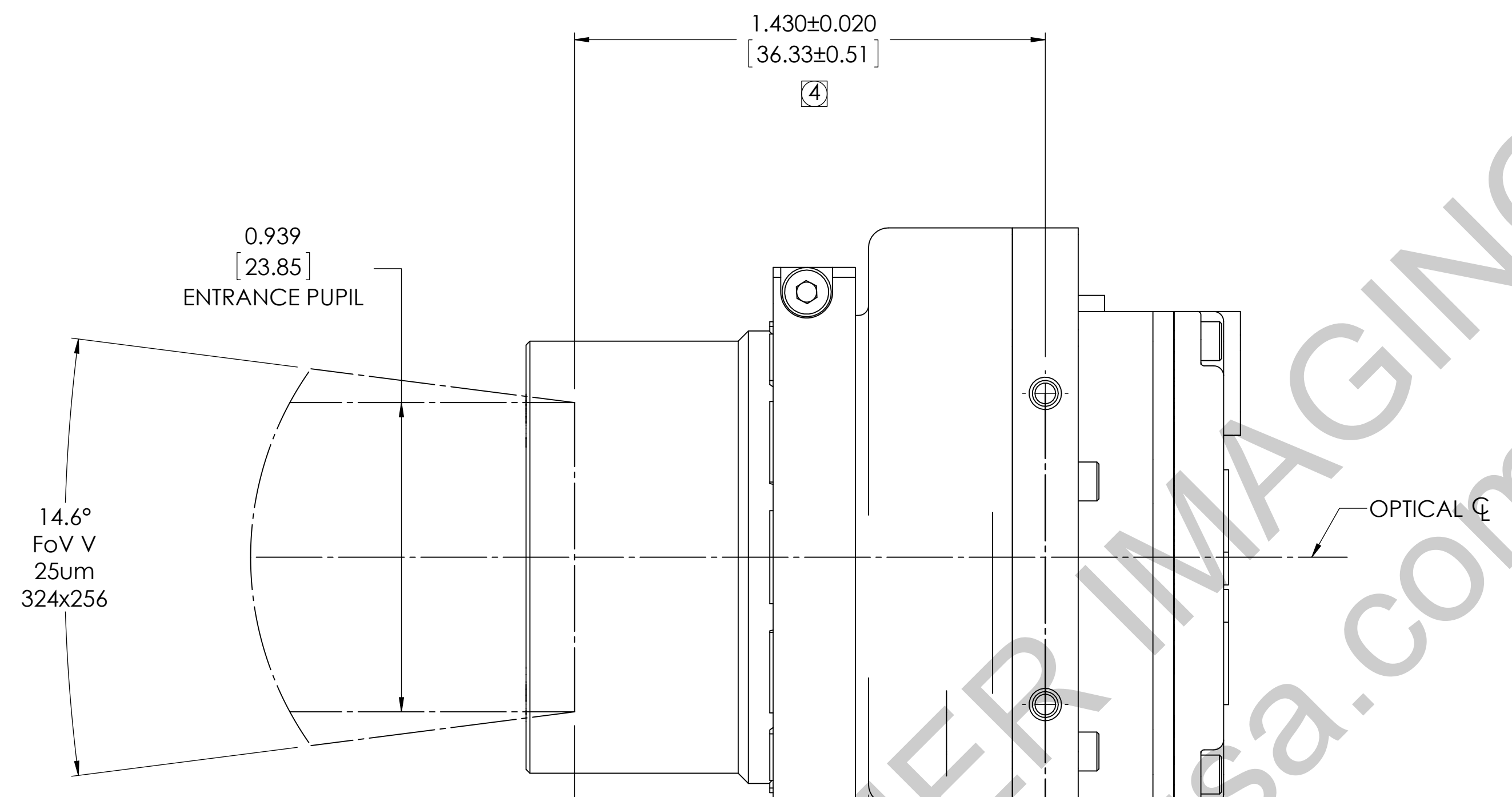
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25 mm-f1.1
324x 256 ARRAY

IDD, TAU CAMERA,
25mm-f1.1, 25um 324x256

SIZE	CAGE	DWG NO.	REV
D	064Y2	46-324, 25mm-f1.1	100
SCALE 3:1		PRINTED: 11/3/2011	SHEET 2 OF 2
SOLIDWORKS MODEL: 46-Tau Camera Core MODEL REVISION: B-WC			

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DWG NO. 46-324, 25mm-f1.1 SH 2 REV 100