



Technical Data

FLIR A15 f=9 mm

Part number:

62309-0101

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November 19, 2012, 06:46 PM

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Website

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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	160 × 128 pixels
Thermal sensitivity/NETD	≤ 0.05°C @ +30°C (+86°F) / 50 mK
Field of view (FOV) / Minimum focus distance	48° × 39° / fixed focus
Focal length	9 mm (0.35 in.)
Spatial resolution (IFOV)	5.56 mrad
F-number	1.25
Image frequency	60 Hz
Focus	Fixed

Detector data

Focal Plane Array (FPA) / Spectral range	Uncooled VOX microbolometer / 7.5–13 μm
Detector pitch	50 μm
Detector time constant	Typical 12 ms

Measurement

Object temperature range	−40 to +160°C (−40 to 320°F) −40 to +550°C (−40 to +1022°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 @ 60 Hz - Signal linear/ DDE - Automatic/ Manual - Flip H&V 14-bit 160 × 128 pixels @ 60 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

1 800 464 6372
CANADA: 1 800 613 0507



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Digital input/output

Digital output, purpose	General purpose Output to ext. device (programmatically set)
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

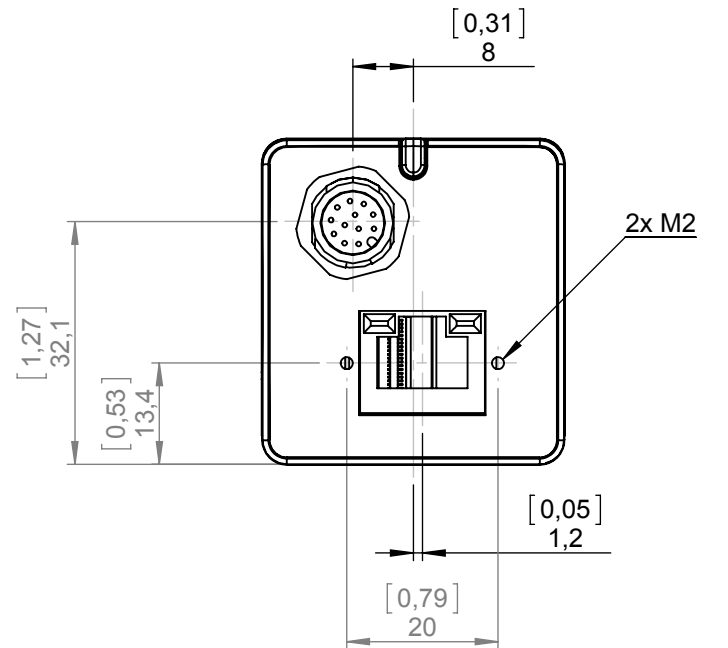
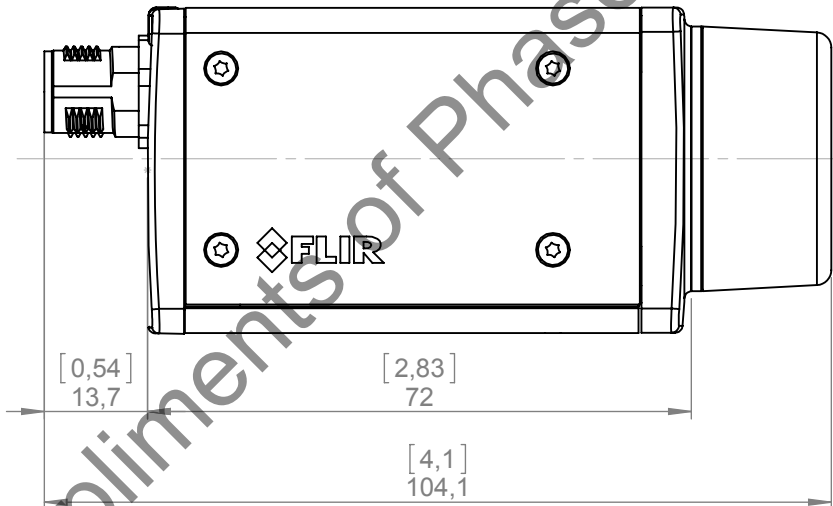
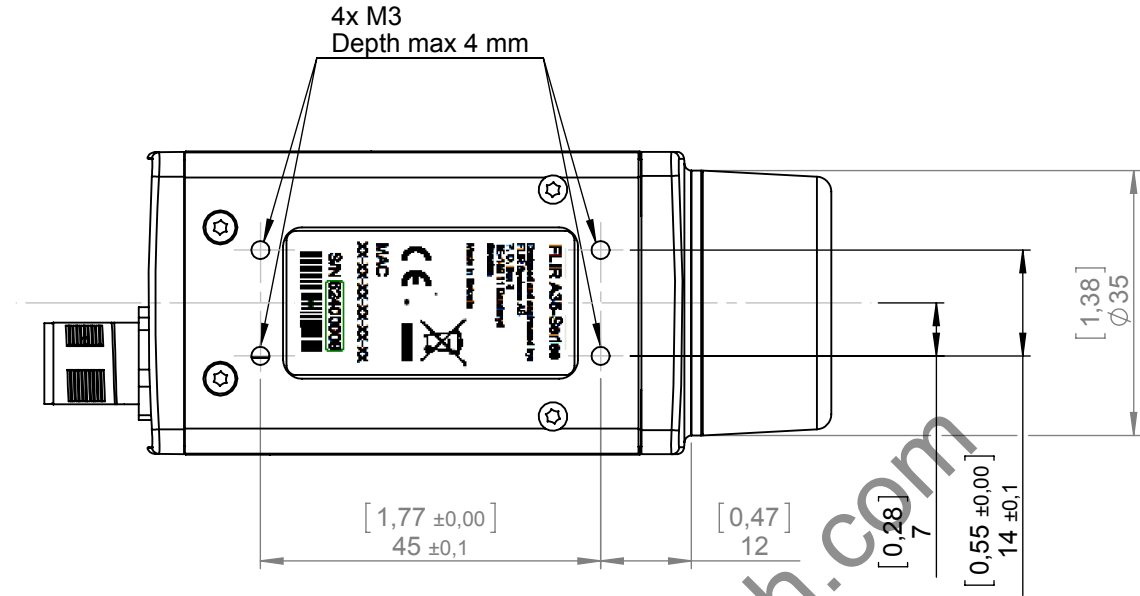
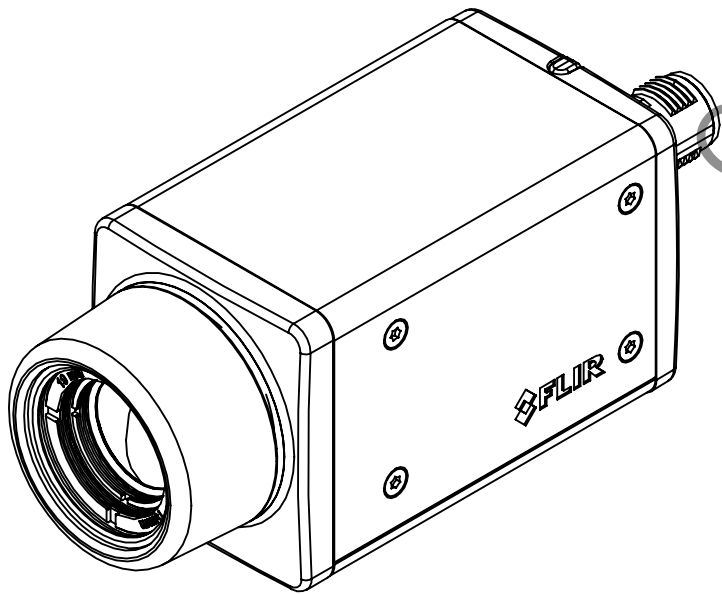
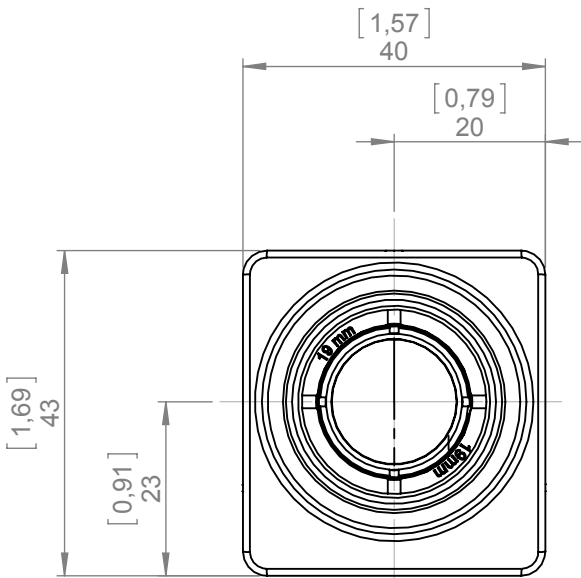
Operating temperature range	–15°C to +50°C (+5°F to +122°F)
Storage temperature range	–40°C to +70°C (–40°F to +158°F)
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)
EMC	• EN 61000-6-2 (Immunity) • EN 61000-6-3 (Emission) • FCC 47 CFR Part 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



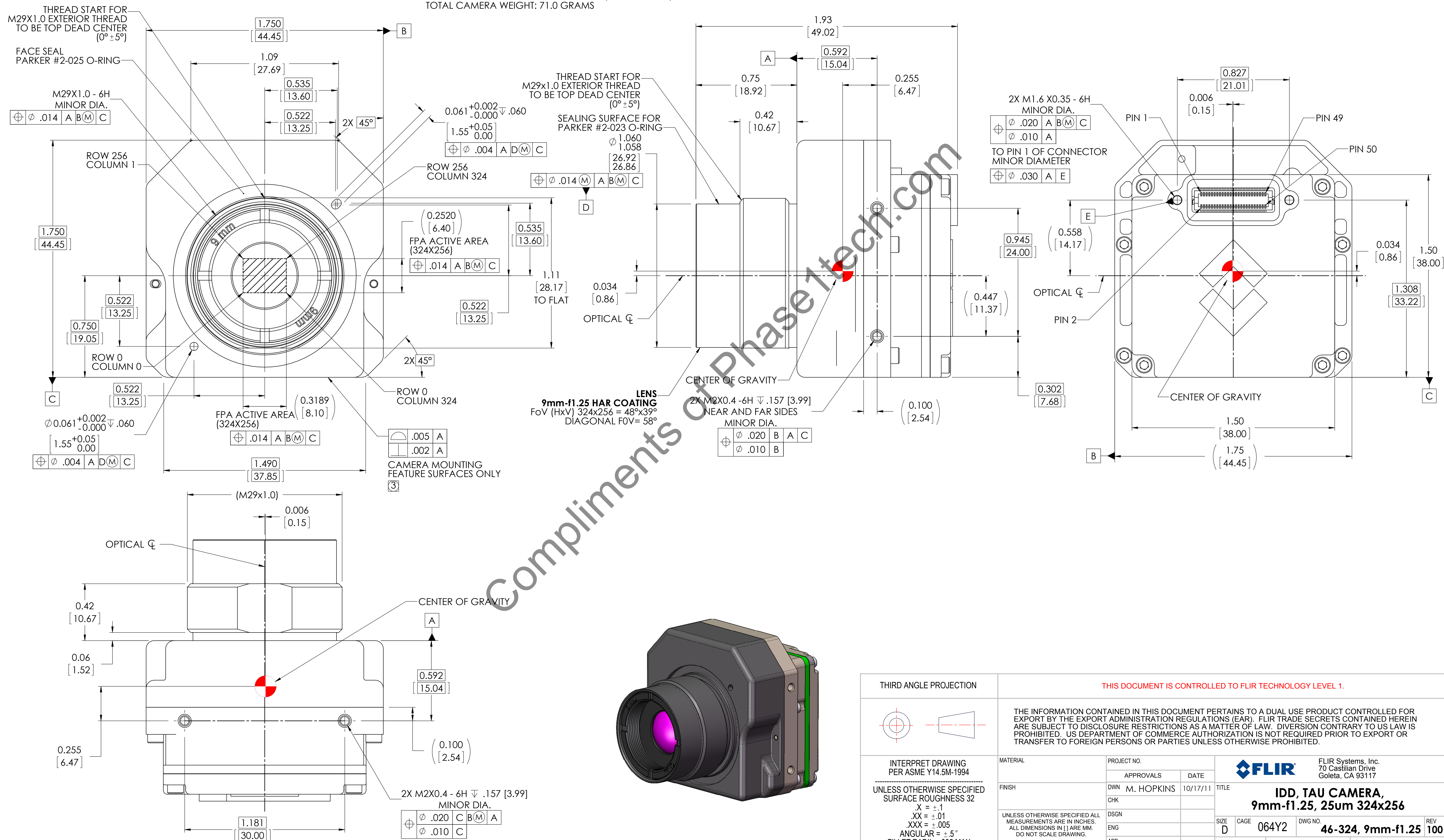
Konstr/Drawn P. MARCUS		Datum/Date 2011-08-19		Kontr/Check BEEH		Material -									
Ändrad av/Modified by P. MARCUS		Ändrad/Modified 2012-05-07		Ytjämnhet/Roughness Ra µm		Ytbehandling/Surface treatment									
Där ej annat anges/Unless otherwise stated Gen tol ISO 2768-mK Utdrag ur/Excerpt from ISO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

NOTES: UNLESS OTHERWISE SPECIFIED

1. INDICATED DIMENSIONS ARE FOR AN ARRAY SIZE OF 324x256.
2. 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.

3. INDICATED TOLERANCES APPLY TO CAMERA MOUNTING SURFACES ONLY. OTHER SURFACES ARE CAST AND HAVE DRAFT.
4. INDICATED ALLOWABLE TRAVEL FOR FOCUS.
5. 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



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

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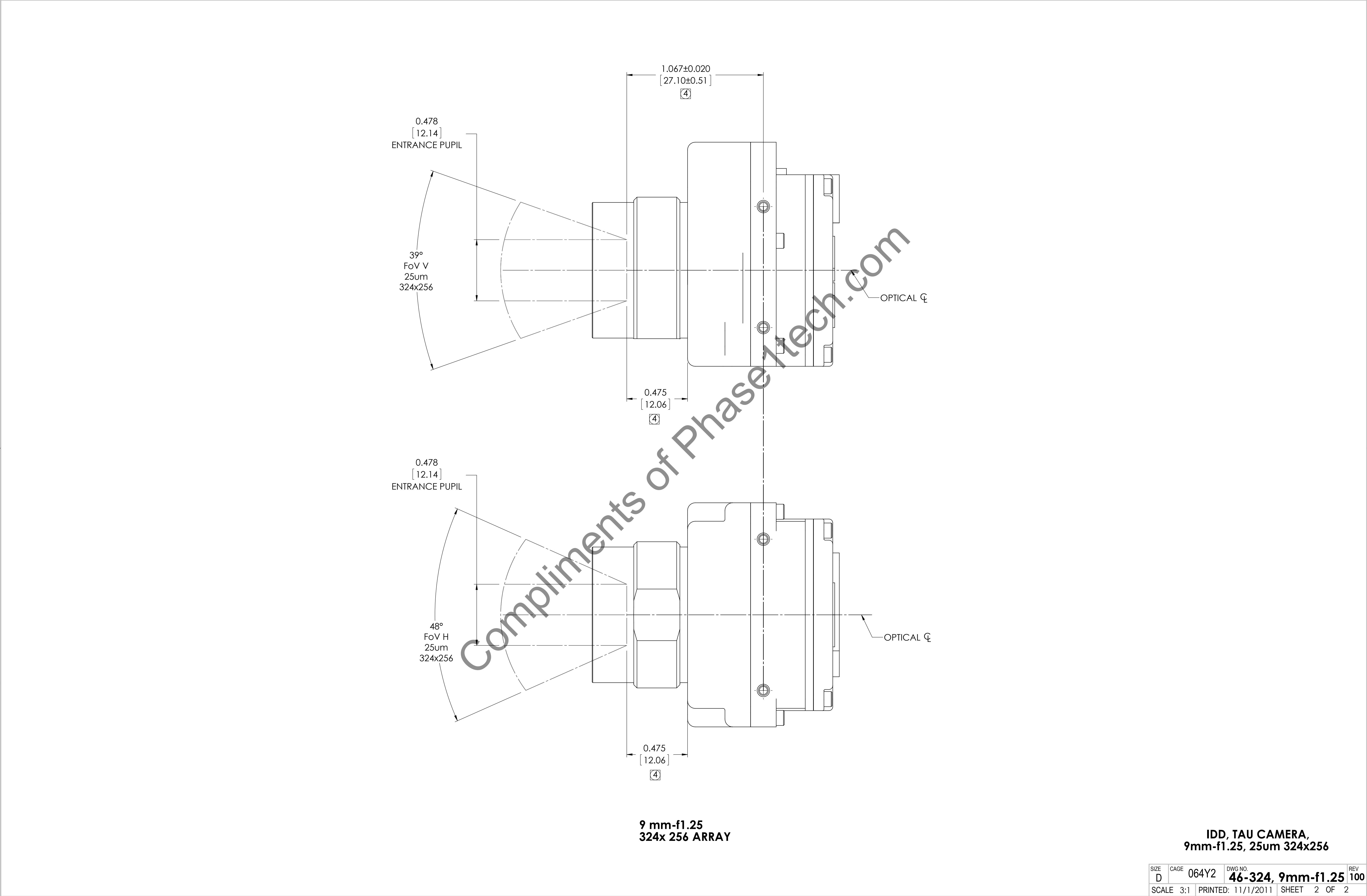
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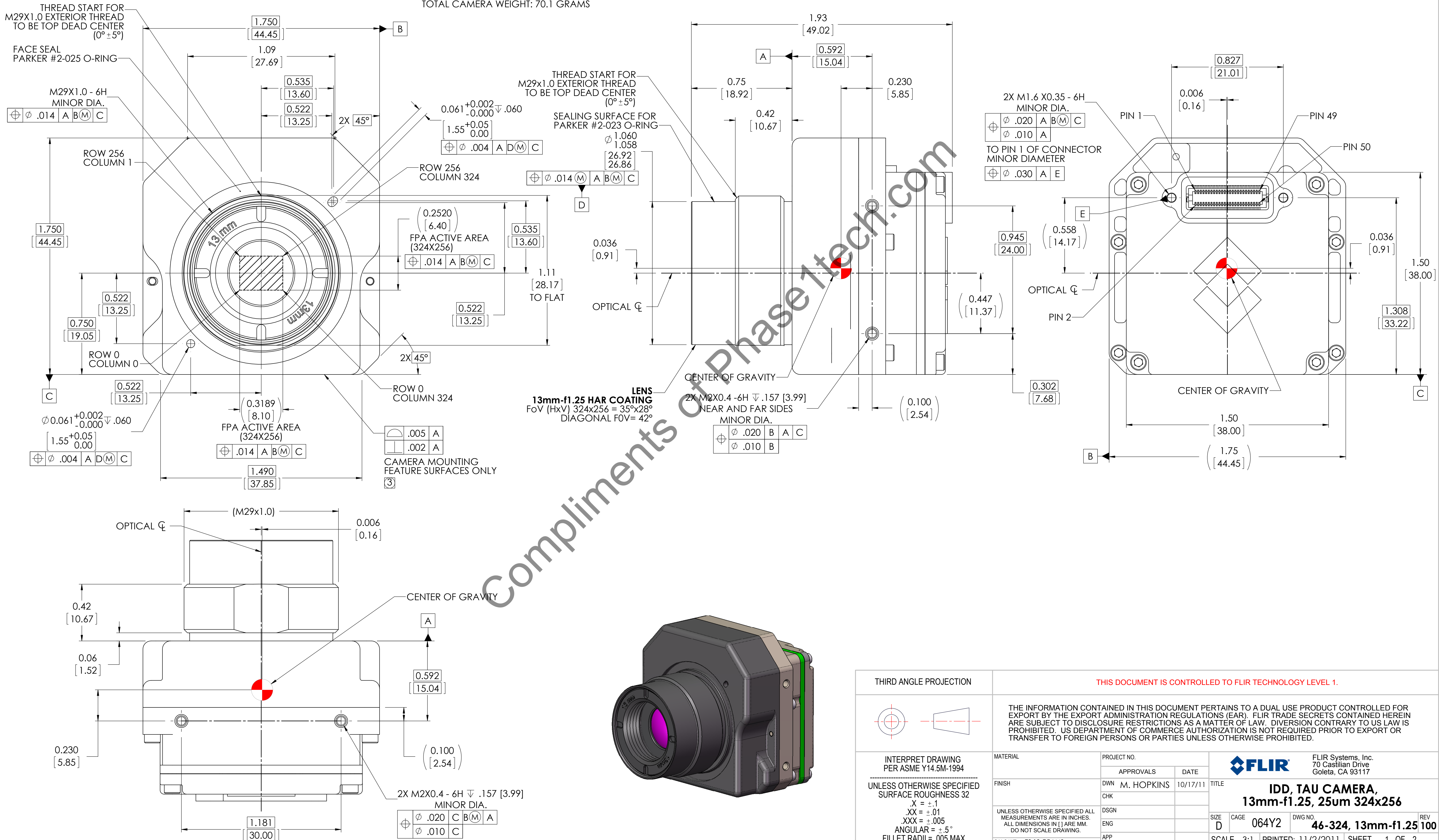


NOTES: UNLESS OTHERWISE SPECIFIED

- 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				
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.			
		THE INFORMATION CONTAINED IN THIS DOCUMENT PERTAINS TO A DUAL USE PRODUCT CONTROLLED FOR EXPORT BY THE EXPORT ADMINISTRATION REGULATIONS (EAR). FLIR TRADE SECRETS CONTAINED HEREIN ARE SUBJECT TO DISCLOSURE RESTRICTIONS AS A MATTER OF LAW. DIVERSION CONTRARY TO US LAW IS PROHIBITED. US DEPARTMENT OF COMMERCE AUTHORIZATION IS NOT REQUIRED PRIOR TO EXPORT OR TRANSFER TO FOREIGN PERSONS OR PARTIES UNLESS OTHERWISE PROHIBITED.			
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		
	UNLESS OTHERWISE SPECIFIED ALL MEASUREMENTS ARE IN INCHES. ALL DIMENSIONS IN [] ARE MM. DO NOT SCALE DRAWING.	DWN	M. HOPKINS	10/17/11	TITLE
	CALC WT: 70.10 GRAMS	CHK			SIZE D
		ENG			CAGE 064Y2
		APP			DWG NO. 46-324, 13mm-f1.25 100
		SCALE 3:1 PRINTED: 11/2/2011		SHEET 1 OF 2	
		SOLIDWORKS MODEL: 46-Tau Camera Core		MODEL REVISION: B-WC	

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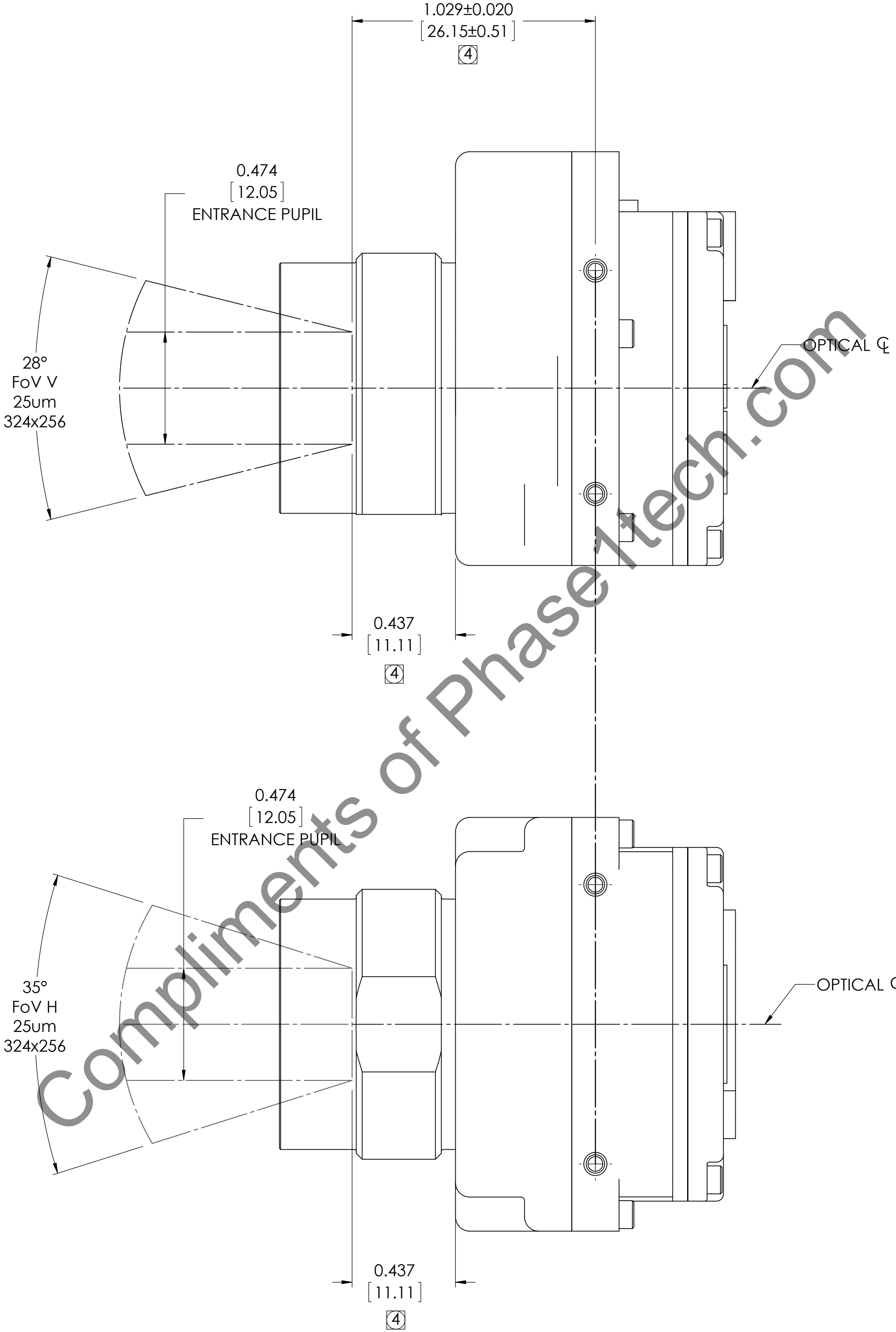
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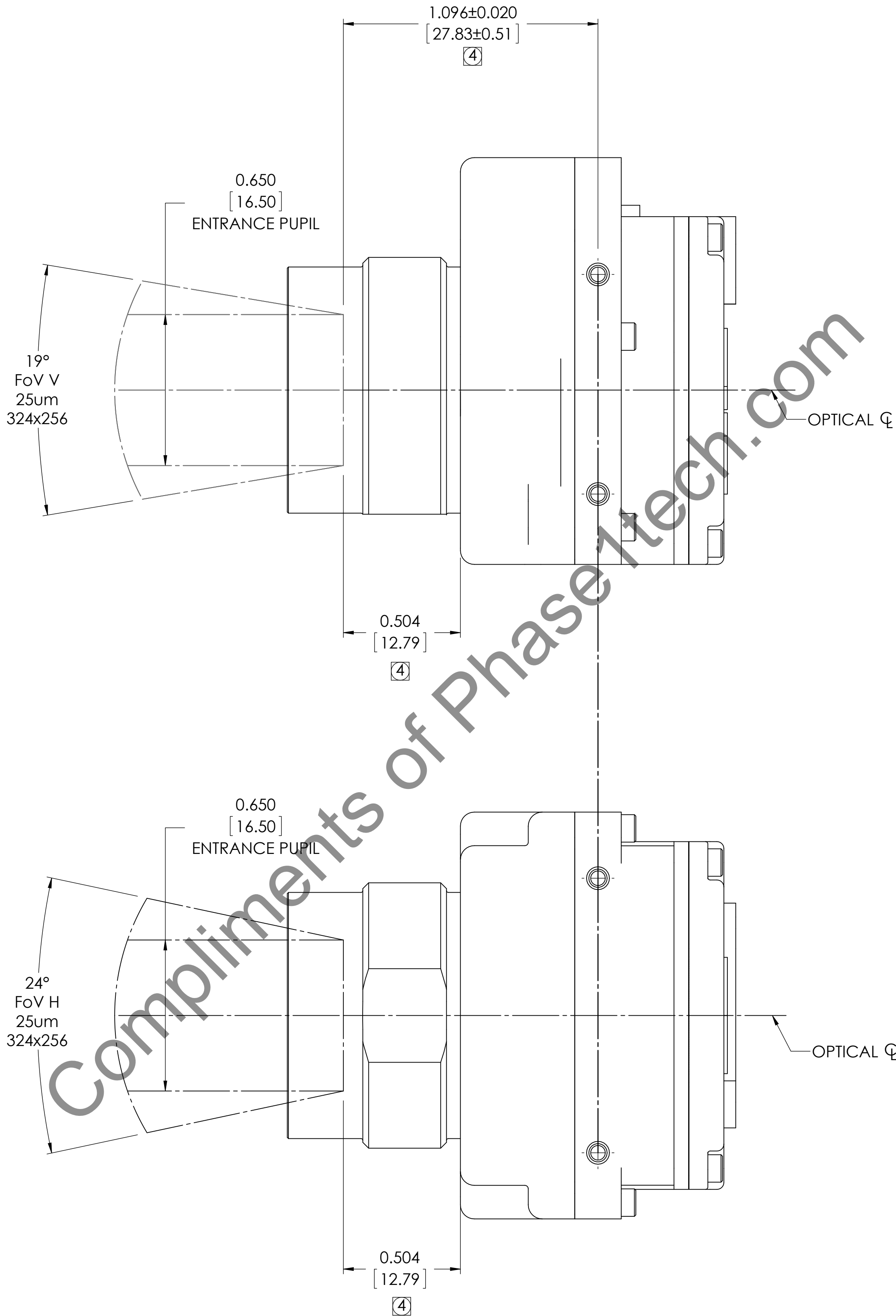
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IDD, TAU CAMERA,
19mm-f1.25, 25um 324x256

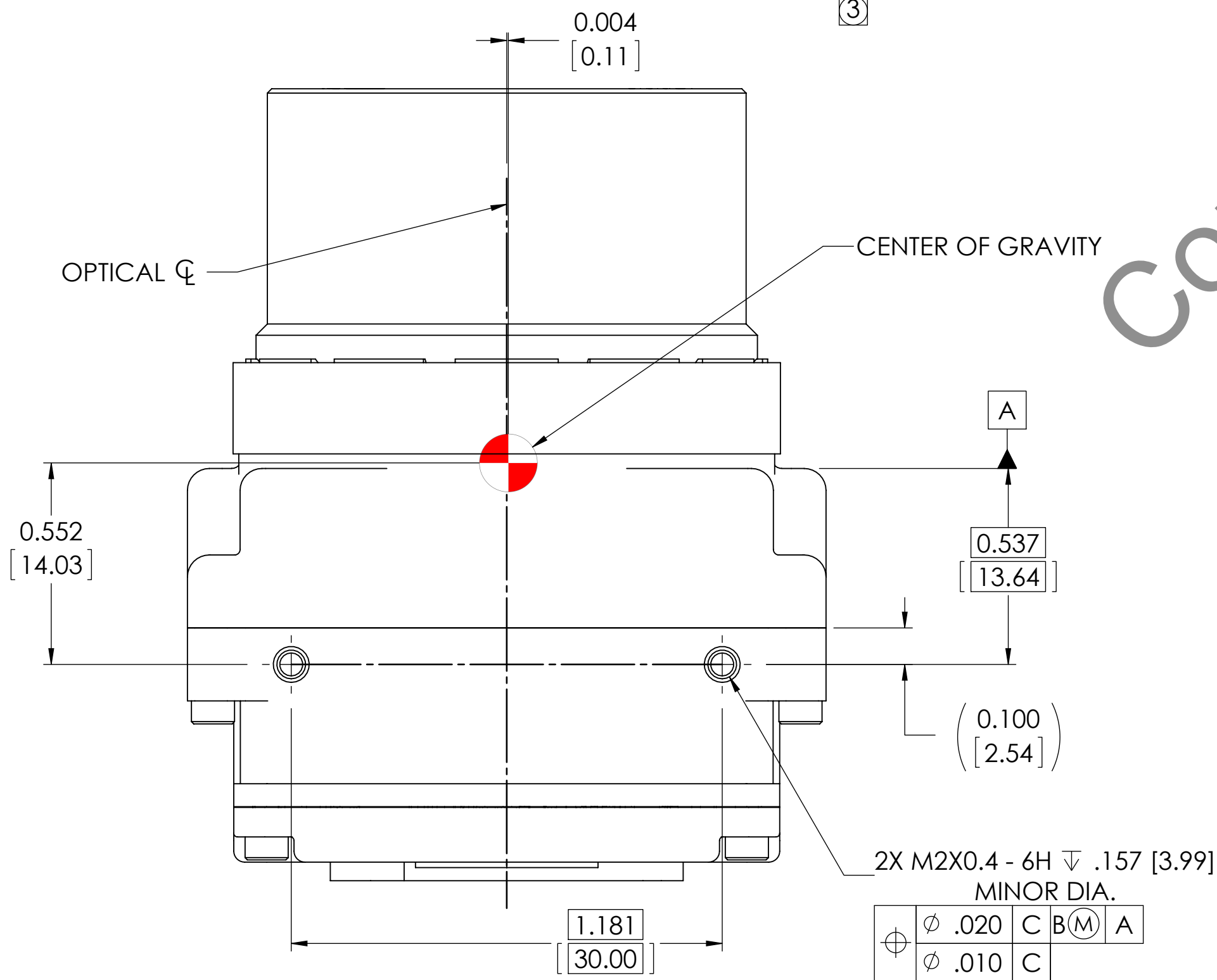
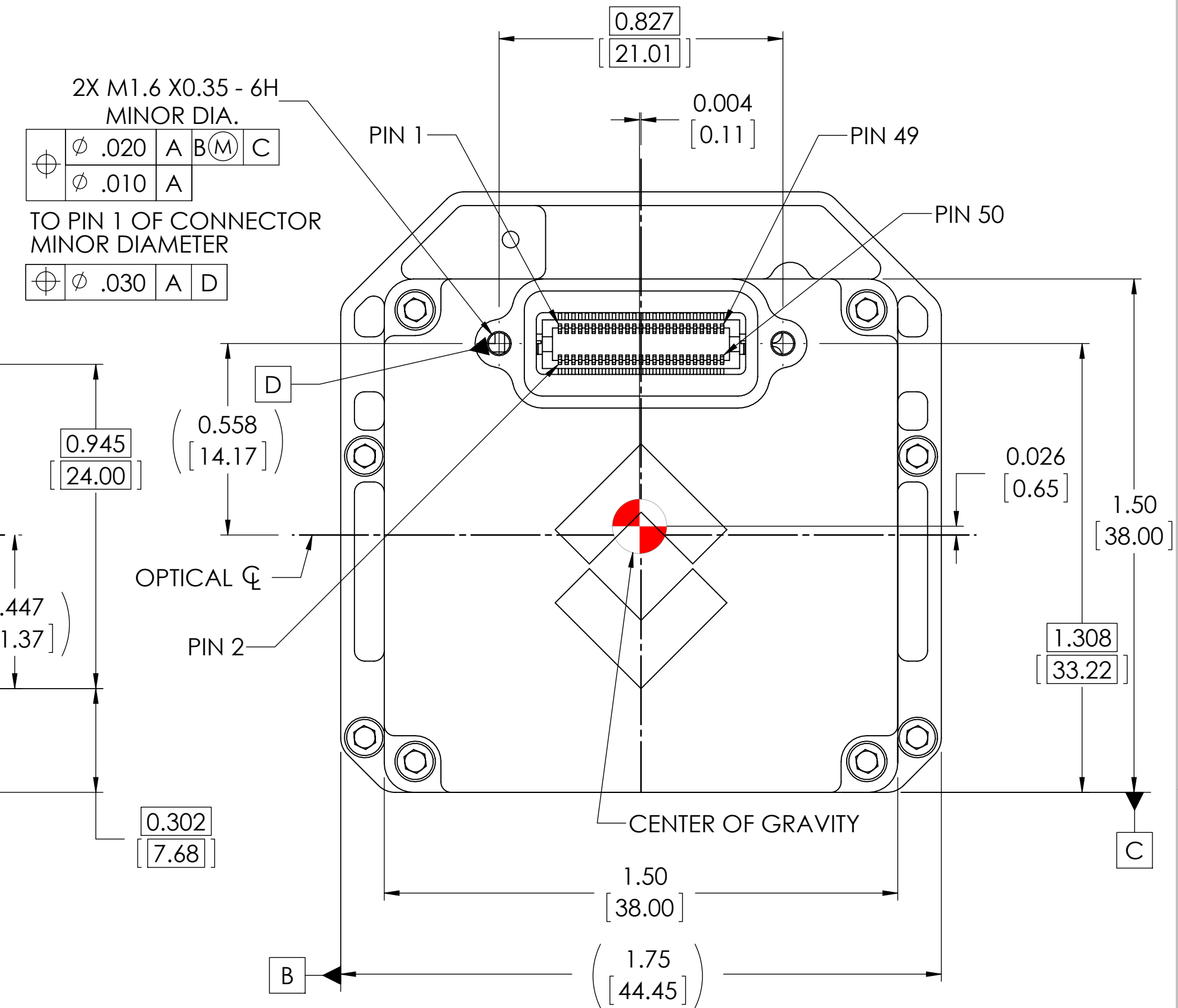
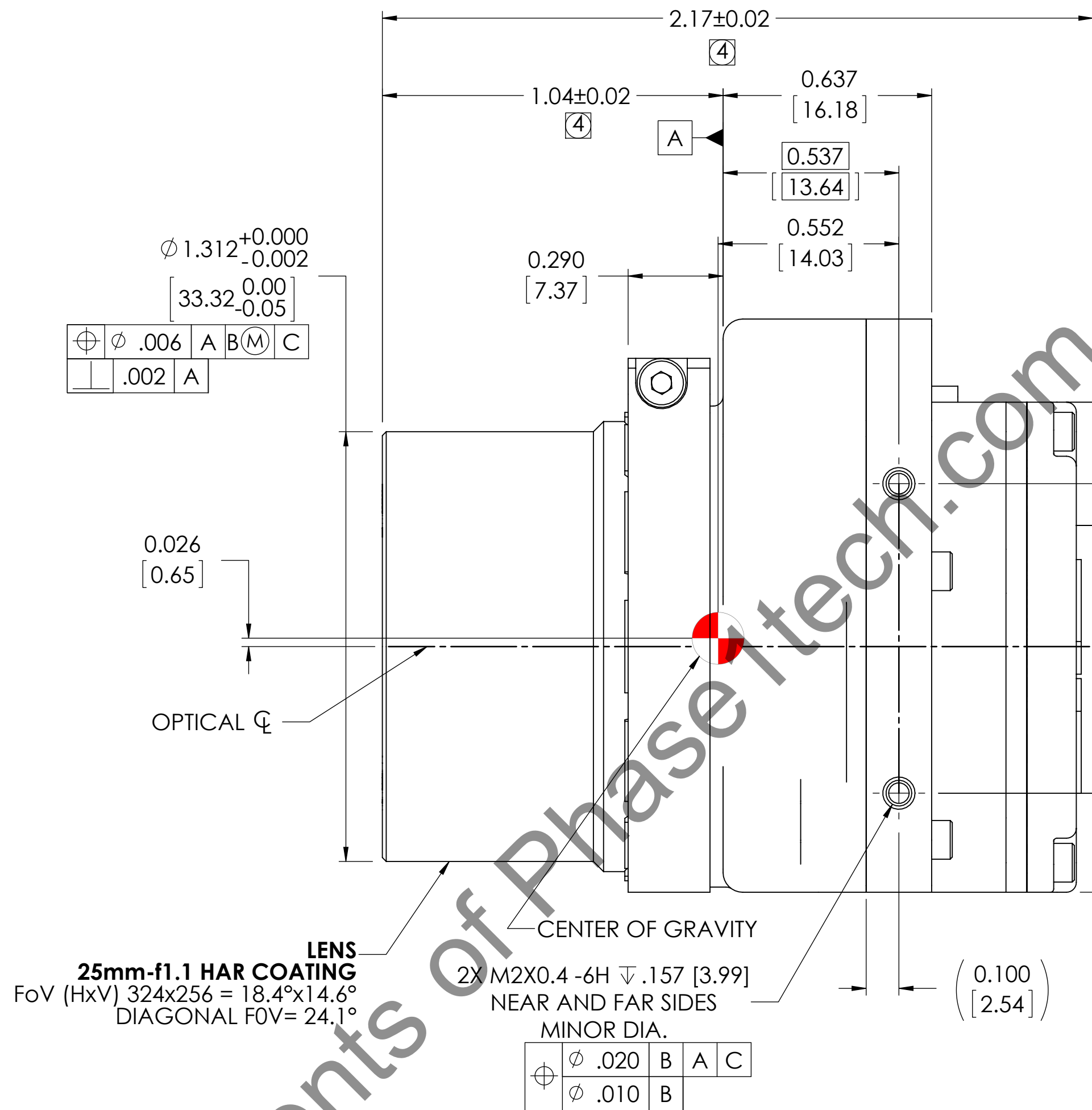
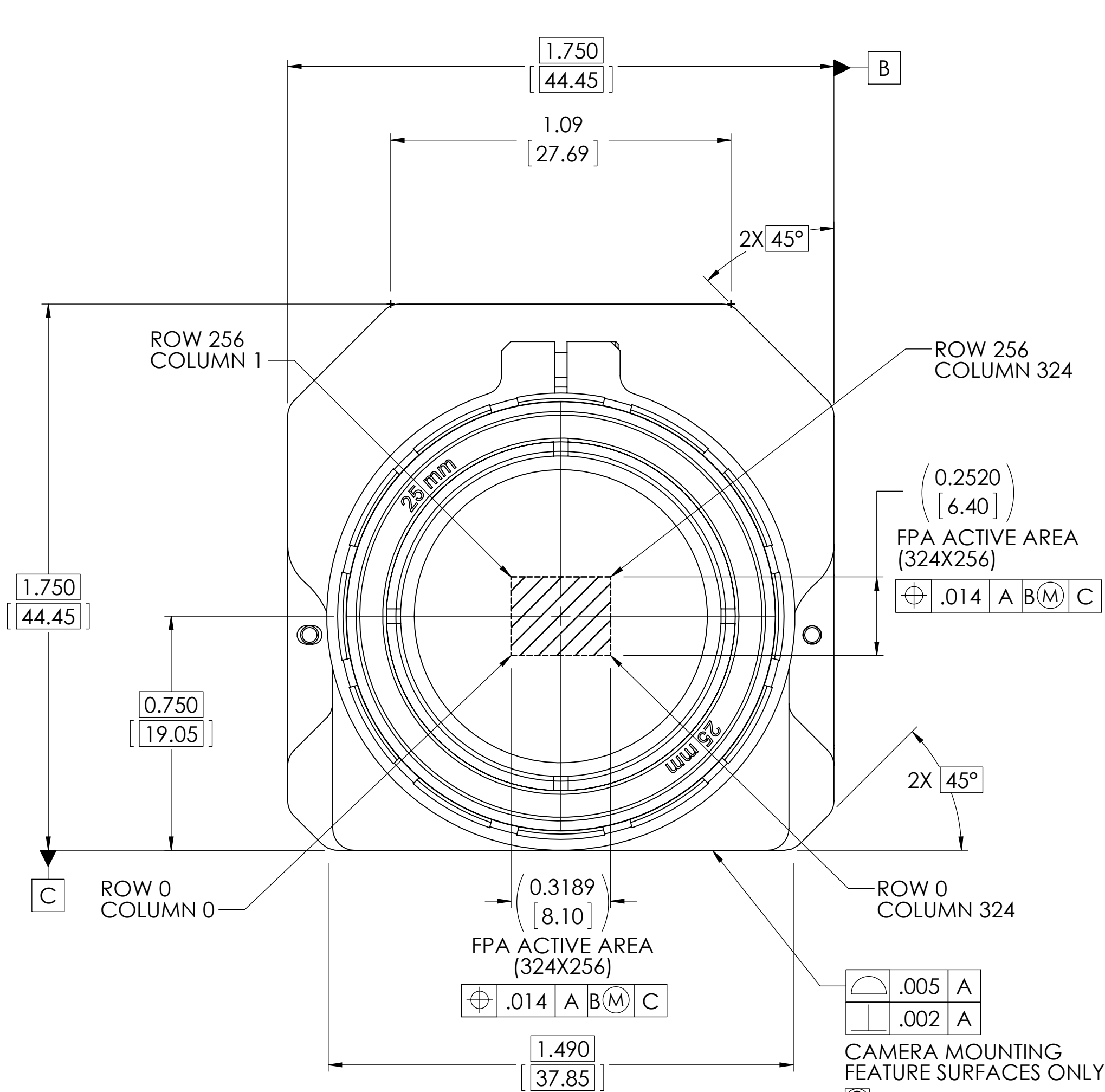
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NOTES: UNLESS OTHERWISE SPECIFIED

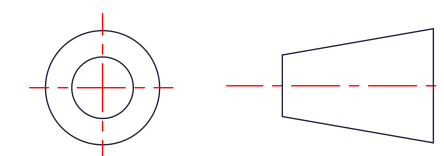
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- INDICATED TOLERANCES APPLY TO CAMERA MOUNTING SURFACES ONLY. OTHER SURFACES ARE CAST AND HAVE DRAFT.
- INDICATED ALLOWABLE TRAVEL FOR FOCUS.
- CAMERA WEIGHT NO LENS: 52.1 GRAMS, LENS WEIGHT, 25mm-f1.1: 58.9 GRAMS
TOTAL CAMERA WEIGHT: 111.0 GRAMS

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



THIRD ANGLE PROJECTION



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

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MATERIAL		PROJECT NO.			FLIR Systems, Inc. 70 Castilian Drive Goleta, CA 93117				
		APPROVALS	DATE						
FINISH	DWN	M. HOPKINS	10/17/11				TITLE	IDD, TAU CAMERA, 25mm-f1.1, 25um 324x256	
	CHK								
	DSGN								
UNLESS OTHERWISE SPECIFIED ALL MEASUREMENTS ARE IN INCHES. ALL DIMENSIONS IN [] ARE MM. DO NOT SCALE DRAWING.		ENG		SIZE	CAGE	DWG NO.			REV
		APP		D	064Y2	46-324, 25mm-f1.1			100
		CALC WT: 111.00 GRAMS	SCALE 3:1	PRINTED: 11/3/2011	SHEET 1 OF 2				

FLIR Systems, Inc.
70 Castilian Drive
Goleta, CA 93117

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

064Y2 46-324, 25mm-f1.1 100

SOLIDWORKS MODEL: 46-Tau Camera Core
MODEL REVISION: B-WC

D

C

B

A

D

C

B

A

