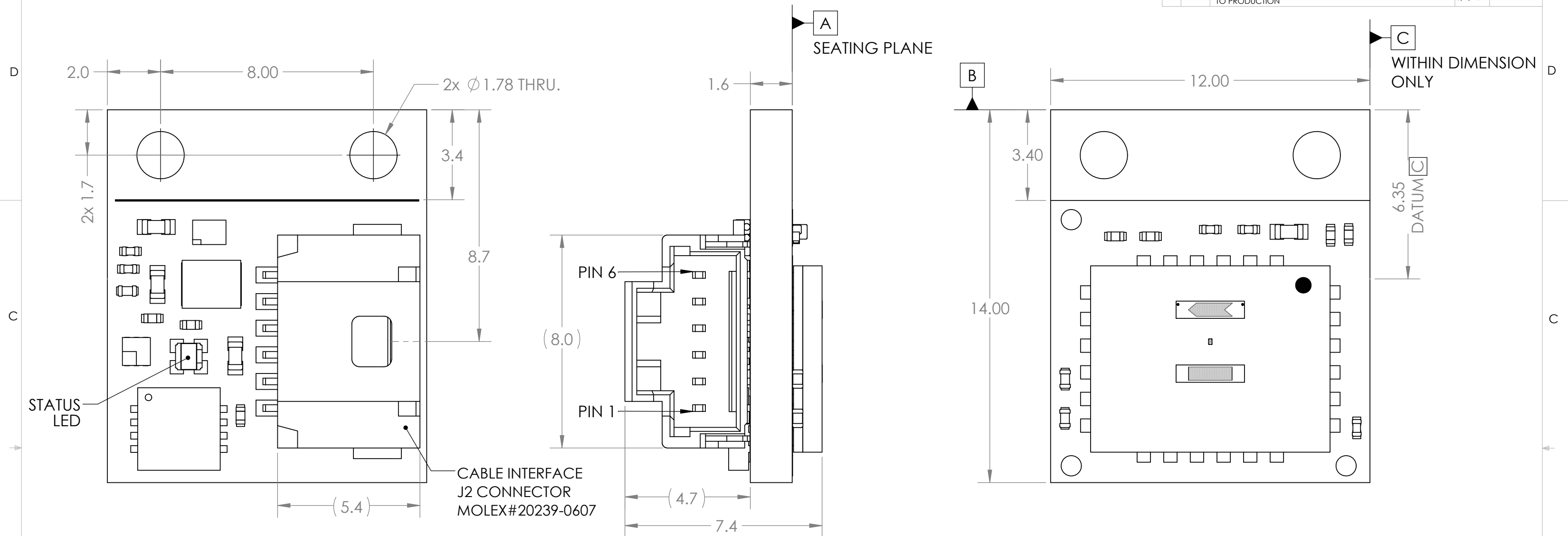


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REVISIONS				
LTR	ECO	DESCRIPTION	DATE	APPROVED
1	---	INITIAL	8/23/23	SB
A	4167	UPDATED X & Y LOCATION TOLERANCE. RELEASE TO PRODUCTION	8/2/2024	PB



GPIO (0) (Error)	GPIO (1) (Warning)	LED COLOR
1	1	Green
1	0	Yellow
0	1	Red
0	0	Red

NOTES:

1. RECOMMENDED HARDWARE: 0-80 SHCS
MAX. TORQUE: 3 in/lbs
2. RECOMMENDED ENCODER MOUNTING PLATE THICKNESS:
MINIMUM - 4 SCREW THREADS
MAXIMUM - ALLOW CLEARANCE TO SCALE AND SCALE MOUNTING HARDWARE
(BENCHING SURFACES, CLAMPS, HUBS, ETC.)
BENCHING EDGES: IF BENCHING THE ENCODER, AN EDGE OR PINS CAN BE USED ALONG
DATUMS [B] AND [C] AS LONG AS IT DOES NOT EXTEND BEYOND DIMENSION SHOWN FOR DATUM [C].
BENCHING EDGE OR PINS MUST BE A MINIMUM OF 1.50mm IN HEIGHT FROM MOUNTING SURFACE.

Cable Connector J2 Pinouts	
Pin	Function
1	MA+
2	MA-
3	VIN (3.3 - 5V)
4	SLO-
5	SLO+
6	GND

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN MILLIMETERS.
DIM APPLY AFTER PROCESSING
INTERPRET ALL GEOMETRIC TOLS.
PER ANSI Y14.5M-1994

TOLERANCES ARE:

DECIMALS:	ANGULAR:
.X ± .25	±30 MIN.
.XX ± .13	
.XXX ± .064	

APPROVALS	DATE
DRAWN S.BUTURLIA	7/31/2023
CHECKED C.P.LIANG	8/23/23
ENGRG. CP-Liang	7/29/2024
MFG ENG R.Pu	7/31/2024
QA K.Venkataraman	8/2/2024

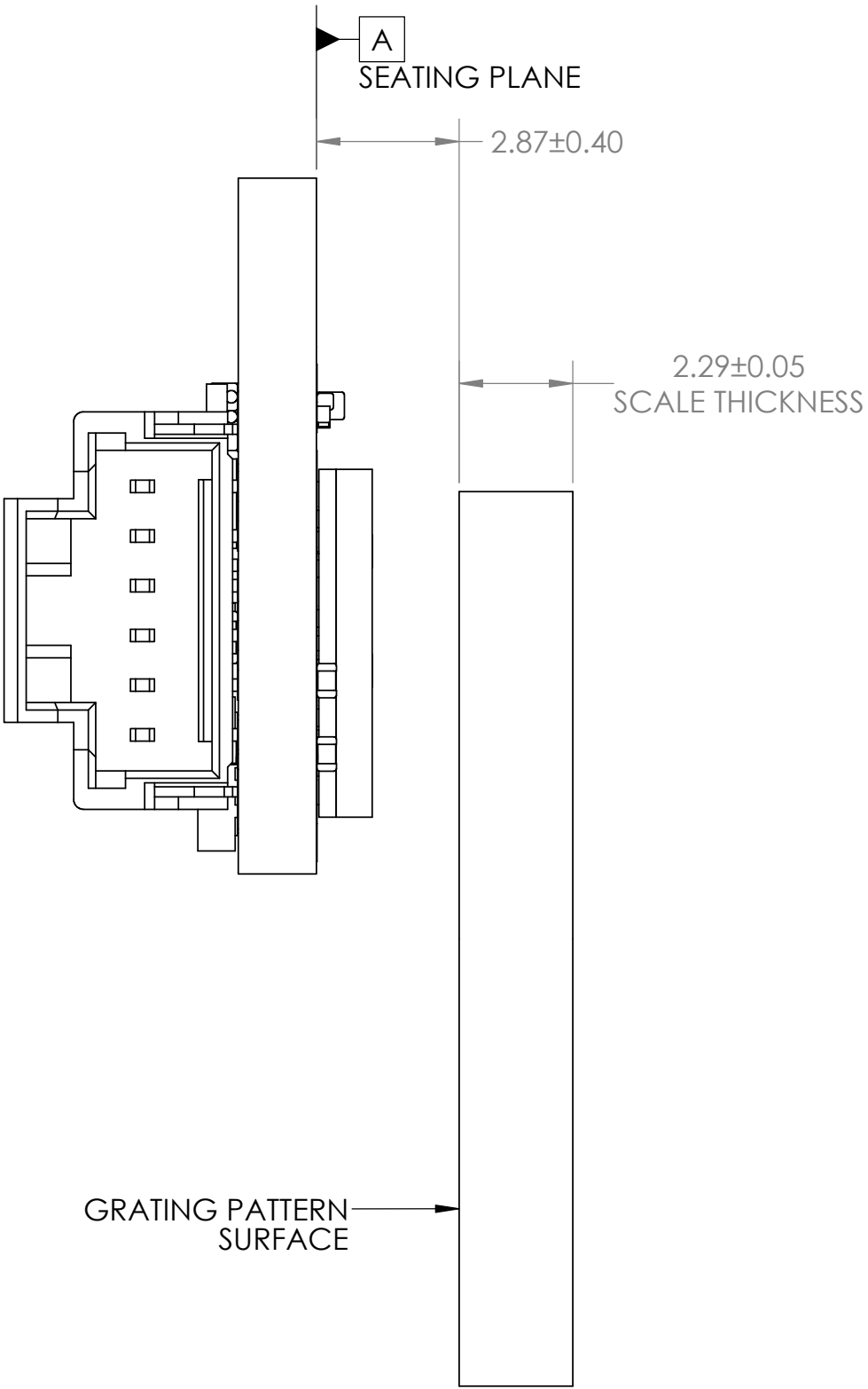
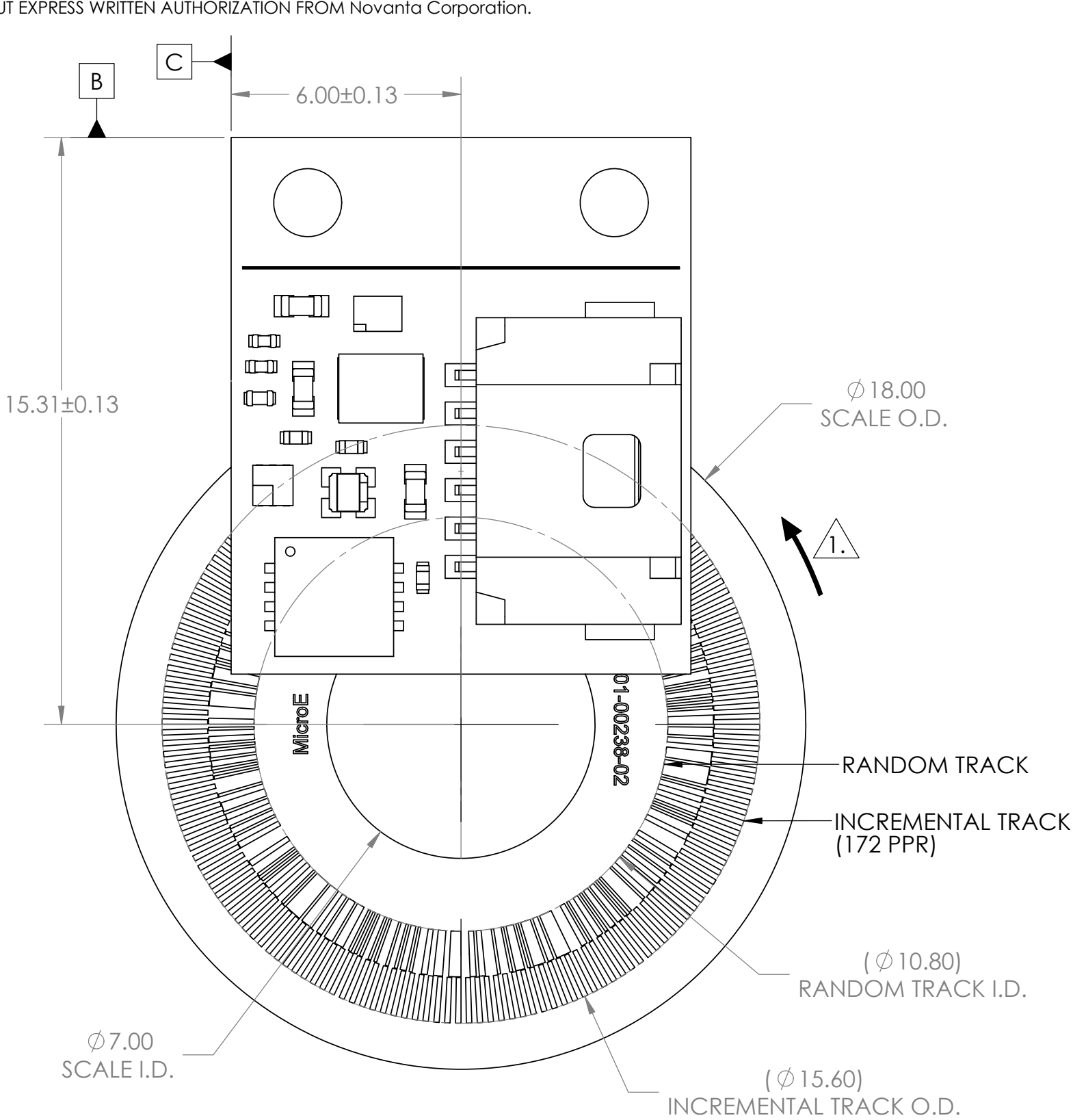
Celera
MOTION
(Novanta Corporation)
125 Middlesex Tpk.
Bedford, MA 01730

	Bedford, MA 01730
24	DESCRIPTION:
24	INTERFACE DRAWING, AURA-P ENCODER W/ABSOLUTE ROTARY GLASS SCALE (AUR-R-G-0002)

SUBJECT TO CHANGE WITHOUT NOTICE

24	SIZE	DWG. NO.	ID-00440	REV.	A
	SCALE:	CAD FILE:	 3rd ANGLE	SHEET	1 OF 2

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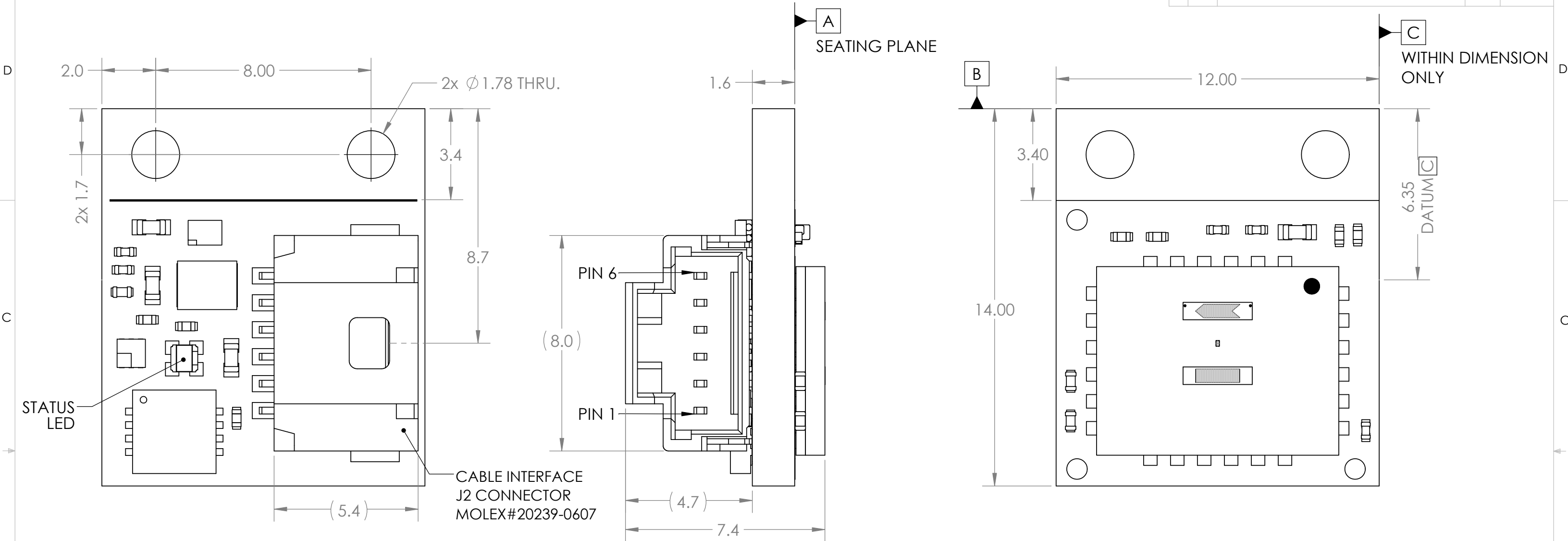


- NOTES:
1. WHEN THE SCALE MOVES IN A COUNTERCLOCKWISE DIRECTION, THE ABSOLUTE VALUE WILL INCREASE.
 2. THE CENTER OF SCALE PATTERN SHOULD BE MOUNTED NO MORE THAN 25 MICRONS AWAY FROM THE CENTER OF ROTATION, EQUATING TO A 50 MICRON CONCENTRICITY TOLERANCE.

Celera MOTION (Novanta Corporation) 125 Middlesex Tpk. Bedford, MA 01730			
DESCRIPTION: INTERFACE DRAWING, AURA-P ENCODER W/ABSOLUTE ROTARY GLASS SCALE (AUR-R-G-0002)			
SIZE: DWG. NO.	ID-00440		REV. A
SCALE:	CAD FILE:	3rd ANGLE PROJECTION	SHEET 2 OF 2

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REVISIONS				
LTR	ECO	DESCRIPTION	DATE	APPROVED
1	---	INITIAL	7/16/2024	CPL
A	4167	NO CHANGES TO DIMS. RELEASE TO PRODUCTION.	8/2/2024	PB



GPIO (0) (Error)	GPIO (1) (Warning)	LED COLOR
1	1	Green
1	0	Yellow
0	1	Red
0	0	Red

NOTES:

- RECOMMENDED HARDWARE: 0-80 SHCS
MAX. TORQUE: 3 in/lbs
- RECOMMENDED ENCODER MOUNTING PLATE THICKNESS:
MINIMUM - 4 SCREW THREADS
MAXIMUM - ALLOW CLEARANCE TO SCALE AND SCALE MOUNTING HARDWARE
(BENCHING SURFACES, CLAMPS, HUBS, ETC.)
BENCHING EDGES: IF BENCHING THE ENCODER, AN EDGE OR PINS CAN BE USED ALONG DATUMS B AND C AS LONG AS IT DOES NOT EXTEND BEYOND DIMENSION SHOWN FOR DATUM C.
BENCHING EDGE OR PINS MUST BE A MINIMUM OF 1.50mm IN HEIGHT FROM MOUNTING SURFACE.

Cable Connector J2 Pinouts	
Pin	Function
1	MA+
2	MA-
3	VIN (3.3 - 5V)
4	SLO-
5	SLO+
6	GND

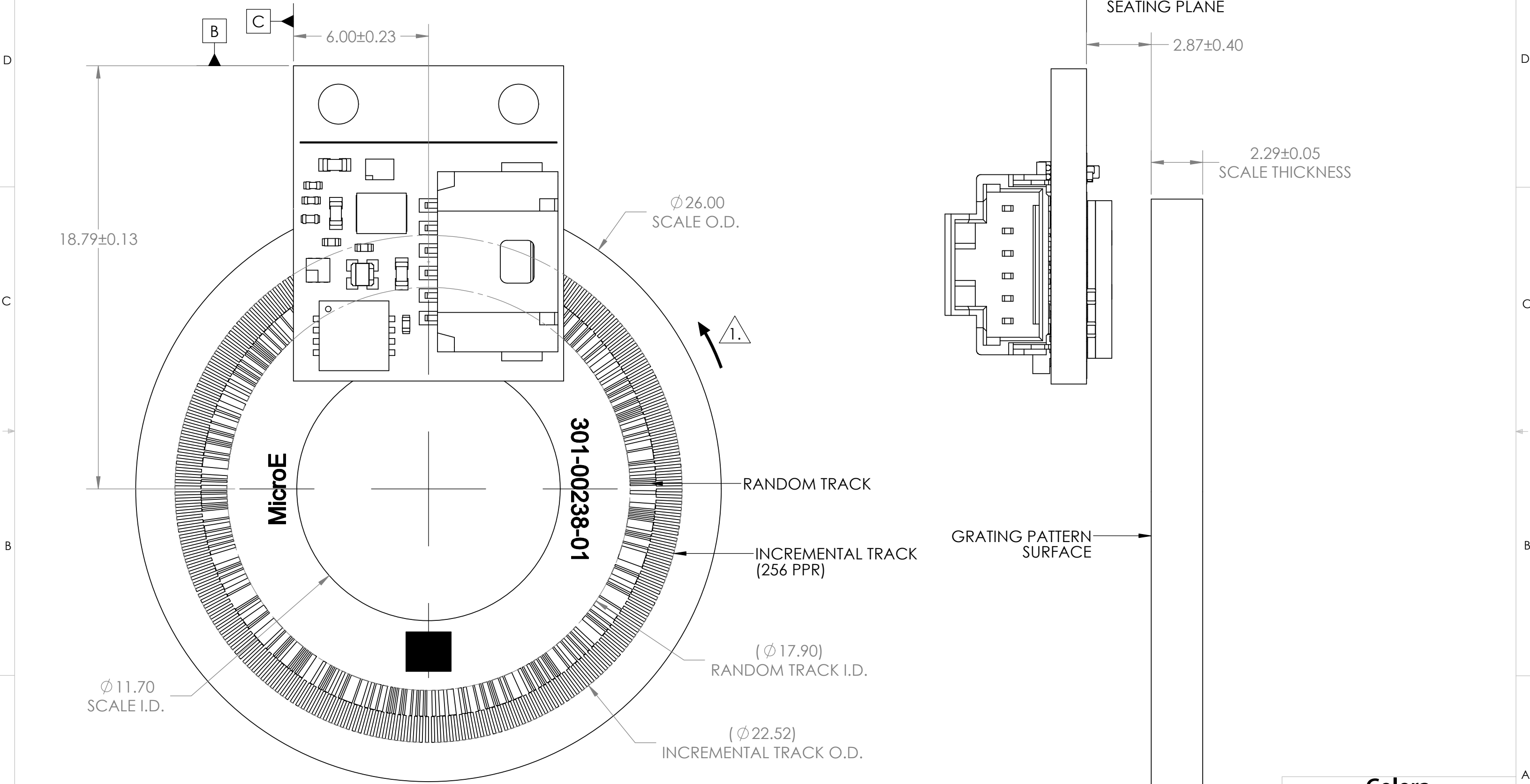
UNLESS OTHERWISE SPECIFIED	
ALL DIMENSIONS ARE IN MILLIMETERS. DIM APPLY AFTER PROCESSING INTERPRET ALL GEOMETRIC TOLS. PER ANSI Y14.5M-1994	
TOLERANCES ARE:	
DECIMALS:	ANGULAR:
.X ± .25	±30 MIN.
.XX ± .13	
.XXX ± .064	

APPROVALS	DATE
DRAWN S.BUTURLIA	7/12/2024
CHECKED C.P.LIANG	8/23/23
ENGRG. CP-Liang	7/29/2024
MFG ENG R.Pu	7/31/2024
QA K.Venkataraman	8/2/2024

Celera MOTION	
(Novanta Corporation) 125 Middlesex Tpk. Bedford, MA 01730	
DESCRIPTION: INTERFACE DRAWING, AURA-P ENCODER W/ABSOLUTE ROTARY GLASS SCALE (AUR-R-G-0001)	
SIZE: DWG. NO. B ID-00443	REV. A
SCALE:	CAD FILE:
3rd ANGLE PROJECTION	
SHEET 1 OF 2	

SUBJECT TO CHANGE WITHOUT NOTICE

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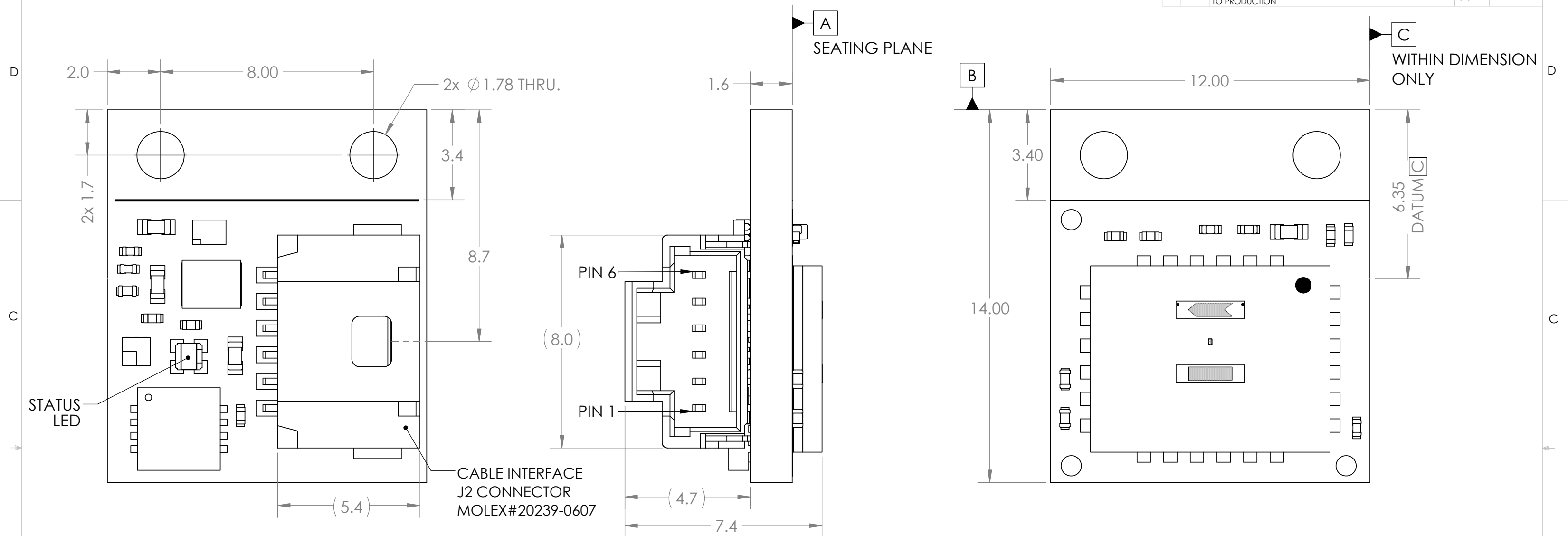


- NOTES:
1. WHEN THE SCALE MOVES IN A COUNTERCLOCKWISE DIRECTION, THE ABSOLUTE VALUE WILL INCREASE.
 2. THE CENTER OF SCALE PATTERN SHOULD BE MOUNTED NO MORE THAN 50 MICRONS AWAY FROM THE CENTER OF ROTATION, EQUATING TO A 100 MICRON CONCENTRICITY TOLERANCE.

Celera MOTION (Novanta Corporation) 125 Middlesex Tpk. Bedford, MA 01730			
DESCRIPTION: INTERFACE DRAWING, AURA-P ENCODER W/ABSOLUTE ROTARY GLASS SCALE (AUR-R-G-0001)			
SIZE: B	DWG. NO. ID-00443	REV. A	
SCALE:	CAD FILE:	3rd ANGLE PROJECTION	SHEET 2 OF 2

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REVISIONS				
LTR	ECO	DESCRIPTION	DATE	APPROVED
1	---	INITIAL	8/23/23	SB
A	4167	UPDATED X & Y LOCATION TOLERANCE. RELEASE TO PRODUCTION	8/2/2024	PB



GPIO (0) (Error)	GPIO (1) (Warning)	LED COLOR
1	1	Green
1	0	Yellow
0	1	Red
0	0	Red

NOTES:

1. RECOMMENDED HARDWARE: 0-80 SHCS
MAX. TORQUE: 3 in/lbs
2. RECOMMENDED ENCODER MOUNTING PLATE THICKNESS:
MINIMUM - 4 SCREW THREADS
MAXIMUM - ALLOW CLEARANCE TO SCALE AND SCALE MOUNTING HARDWARE
(BENCHING SURFACES, CLAMPS, HUBS, ETC.)
BENCHING EDGES: IF BENCHING THE ENCODER, AN EDGE OR PINS CAN BE USED ALONG
DATUMS [B] AND [C] AS LONG AS IT DOES NOT EXTEND BEYOND DIMENSION SHOWN FOR DATUM [C].
BENCHING EDGE OR PINS MUST BE A MINIMUM OF 1.50mm IN HEIGHT FROM MOUNTING SURFACE.

Cable Connector J2 Pinouts	
Pin	Function
1	MA+
2	MA-
3	VIN (3.3 - 5V)
4	SLO-
5	SLO+
6	GND

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN MILLIMETERS.
DIM APPLY AFTER PROCESSING
INTERPRET ALL GEOMETRIC TOLS.
PER ANSI Y14.5M-1994

TOLERANCES ARE:

DECIMALS:	ANGULAR:
X ± .25	±30 MIN.
.XX ± .13	
.XXX ± .064	

APPROVALS	DATE
DRAWN S.BUTURLIA	7/31/2023
CHECKED C.P.LIANG	8/23/23
ENGRG. CP-Liang	7/29/2024
MFG ENG R.Pu	7/31/2024
QA K.Venkataraman	8/2/2024

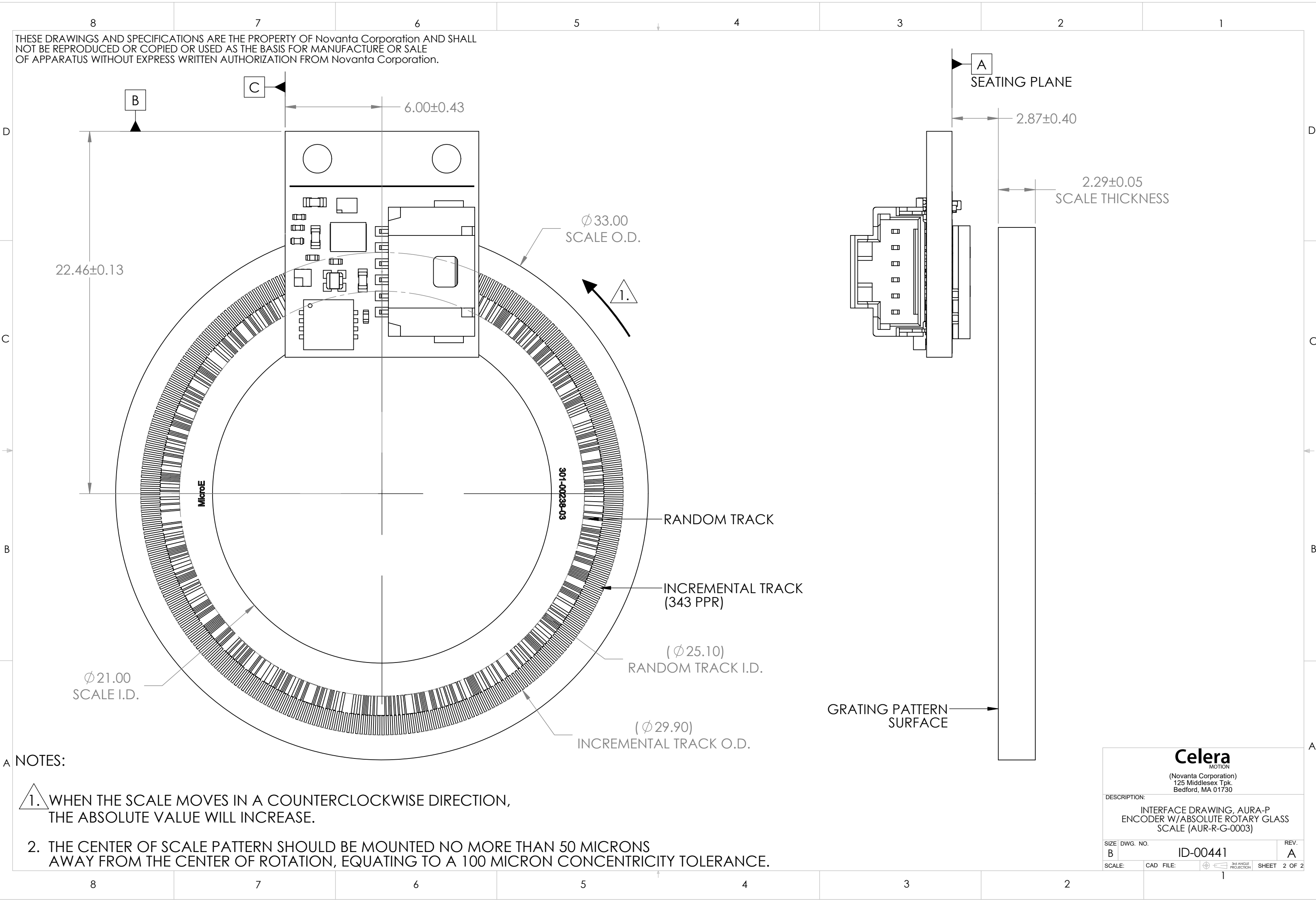
Celera
MOTION
(Novanta Corporation)
125 Middlesex Tpk.
Bedford, MA 01730

	Bedford, MA 01730
24	DESCRIPTION:
24	INTERFACE DRAWING, AURA-P ENCODER W/ABSOLUTE ROTARY GLASS SCALE (AUR-R-G-0003)

SUBJECT TO CHANGE WITHOUT NOTICE

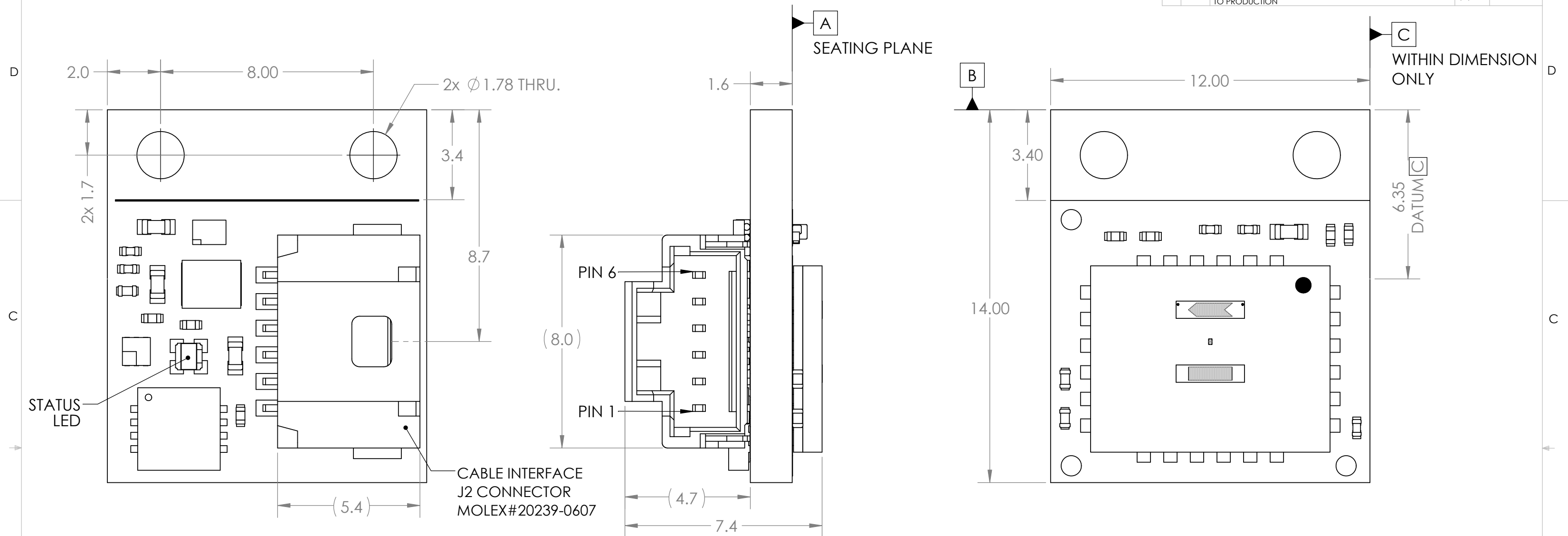
24	SIZE B	DWG. NO. ID-00441	REV. A
SCALE:		CAD FILE:	 3rd ANGLE SHEET 1 OF 2

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REVISIONS				
LTR	ECO	DESCRIPTION	DATE	APPROVED
1	---	INITIAL	8/25/23	SB
A	4167	UPDATED X & Y LOCATION TOLERANCE. RELEASE TO PRODUCTION	8/2/2024	PB



GPIO (0) (Error)	GPIO (1) (Warning)	LED COLOR
1	1	Green
1	0	Yellow
0	1	Red
0	0	Red

NOTES:

1. RECOMMENDED HARDWARE: 0-80 SHCS
MAX. TORQUE: 3 in/lbs
2. RECOMMENDED ENCODER MOUNTING PLATE THICKNESS:
MINIMUM - 4 SCREW THREADS
MAXIMUM - ALLOW CLEARANCE TO SCALE AND SCALE MOUNTING HARDWARE
(BENCHING SURFACES, CLAMPS, HUBS, ETC.)
BENCHING EDGES: IF BENCHING THE ENCODER, AN EDGE OR PINS CAN BE USED ALONG
DATUMS [B] AND [C] AS LONG AS IT DOES NOT EXTEND BEYOND DIMENSION SHOWN FOR DATUM [C].
BENCHING EDGE OR PINS MUST BE A MINIMUM OF 1.50mm IN HEIGHT FROM MOUNTING SURFACE.

Cable Connector J2 Pinouts	
Pin	Function
1	MA+
2	MA-
3	VIN (3.3 - 5V)
4	SLO-
5	SLO+
6	GND

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN MILLIMETERS.
DIM APPLY AFTER PROCESSING
INTERPRET ALL GEOMETRIC TOLS.
PER ANSI Y14.5M-1994

TOLERANCES ARE:

DECIMALS:	ANGULAR:
.X ± .25	±30 MIN.
.XX ± .13	
.XXX ± .064	

APPROVALS	DATE
DRAWN S.BUTURLIA	8/23/2023
CHECKED C.P.LIANG	8/24/23
ENGRG. CP-Liang	7/29/2024
MFG ENG R.Pu	7/31/2024
QA K.Venkataraman	8/2/2024

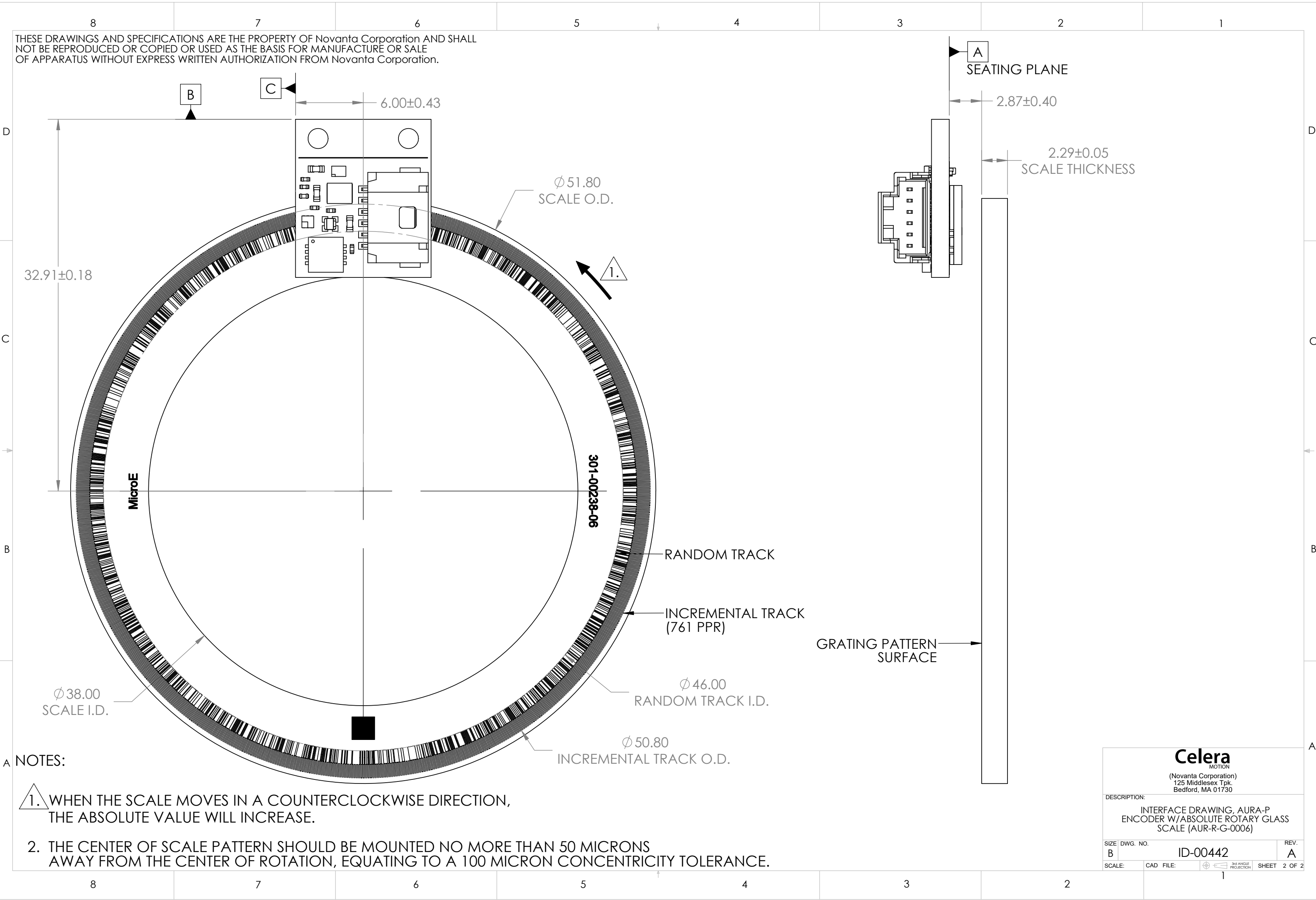
Celera
MOTION
(Novanta Corporation)
125 Middlesex Tpk.
Bedford, MA 01730

	Bedford, MA 01730
24	DESCRIPTION:
24	INTERFACE DRAWING, AURA-P ENCODER W/ABSOLUTE ROTARY GLASS SCALE (AUR-R-G-0006)

SUBJECT TO CHANGE WITHOUT NOTICE

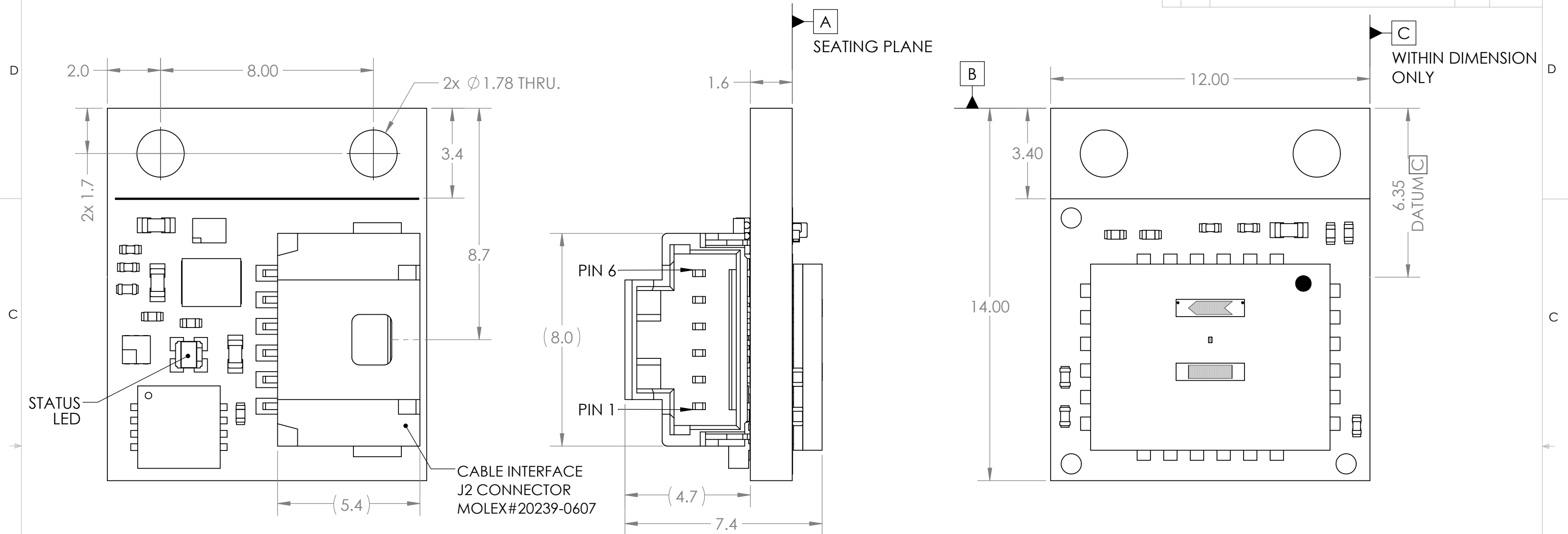
24	SIZE B	DWG. NO. ID-00442	REV. A
SCALE:	CAD FILE:	 3rd ANGLE	SHEET 1 OF 2

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REVISIONS				
LTR	ECO	DESCRIPTION	DATE	APPROVED
1	---	INITIAL	7/16/2024	CPL
A	4167	NO CHANGES TO DIMS. RELEASE TO PRODUCTION.	8/2/2024	PB



GPIO (0) (Error)	GPIO (1) (Warning)	LED COLOR
1	1	Green
1	0	Yellow
0	1	Red
0	0	Red

NOTES:

1. RECOMMENDED HARDWARE: 0-80 SHCS
MAX. TORQUE: 3 in/lbs
2. RECOMMENDED ENCODER MOUNTING PLATE THICKNESS:
MINIMUM - 4 SCREW THREADS
MAXIMUM - ALLOW CLEARANCE TO SCALE AND SCALE MOUNTING HARDWARE
(BENCHING SURFACES, CLAMPS, HUBS, ETC.)
BENCHING EDGES: IF BENCHING THE ENCODER, AN EDGE OR PINS CAN BE USED ALONG
DATUMS B AND C AS LONG AS IT DOES NOT EXTEND BEYOND DIMENSION SHOWN FOR DATUM C.
BENCHING EDGE OR PINS MUST BE A MINIMUM OF 1.50mm IN HEIGHT FROM MOUNTING SURFACE.

Cable Connector J2 Pinouts	
Pin	Function
1	MA+
2	MA-
3	VIN (3.3 - 5V)
4	SLO-
5	SLO+
6	GND

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN MILLIMETERS.
DIM APPLY AFTER PROCESSING
INTERPRET ALL GEOMETRIC TOLS.
PER ANSI Y14.5M-1994

TOLERANCES ARE:

DECIMALS:	ANGULAR:
.X ± .25	±30 MIN.
.XX ± .13	
.XXX ± .064	

APPROVALS	DATE
DRAWN S.BUTURLIA	7/12/2024
CHECKED C.P.LIANG	8/24/23
ENGRG. CP-Liang	7/29/2024
MFG ENG R.Pu	7/31/2024
QA K.Venkataraman	8/2/2024

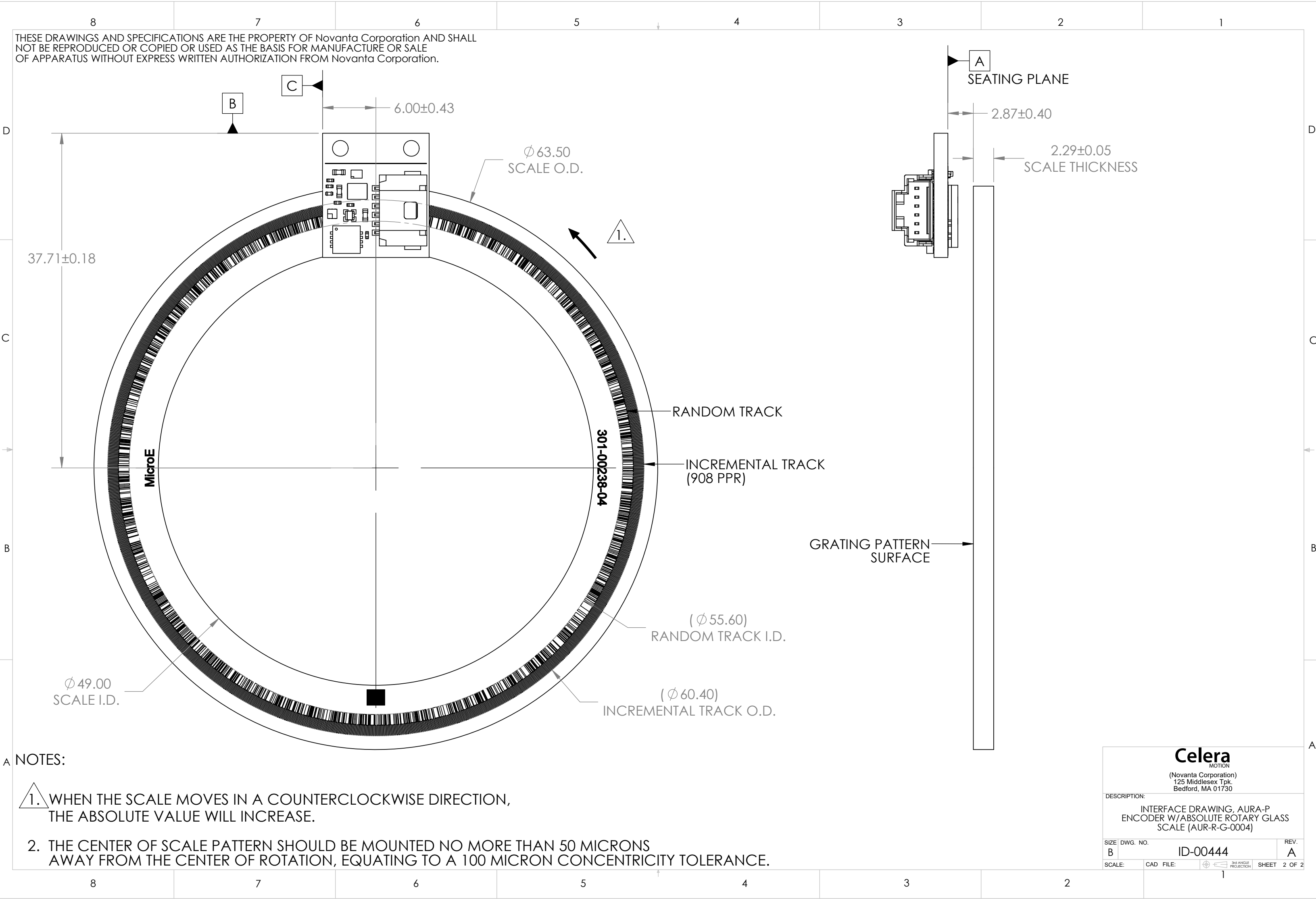
Celera
MOTION
(Novanta Corporation)
125 Middlesex Tpk.
Bedford, MA 01730

	Bedford, MA 01730
24	DESCRIPTION:
24	INTERFACE DRAWING, AURA-P ENCODER W/ABSOLUTE ROTARY GLASS SCALE (AUR-R-G-0004)

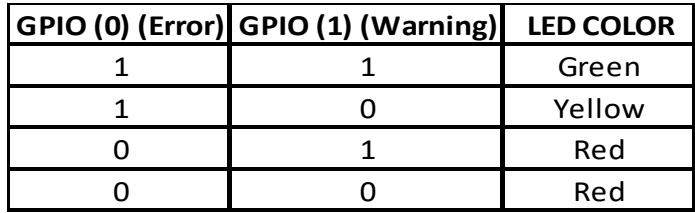
SUBJECT TO CHANGE WITHOUT NOTICE

24	SIZE B	DWG. NO. ID-00444	REV. A
SCALE:	CAD FILE:	 3rd ANGLE	SHEET 1 OF 2

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REVISIONS				
LTR	ECO	DESCRIPTION	DATE	APPROVED
1	---	INITIAL	3/1/2023	SB
2	4096	UPDATE THE TOLERANCE RANGE. SEE ECO	5/10/2023	PB
A	4167	UPDATED Y LOCATION TOLERANCE. RELEASE TO PRODUCTION.	8/2/2024	PB



1. RECOMMENDED HARDWARE: 0-80 SHCS
MAX. TORQUE: 3 in/lbs
2. RECOMMENDED ENCODER MOUNTING PLATE THICKNESS:
MINIMUM - 4 SCREW THREADS
MAXIMUM - ALLOW CLEARANCE TO SCALE AND SCALE MOUNTING HARDWARE
(BENCHING SURFACES, CLAMPS, HUBS, ETC.)
BENCHING EDGES: IF BENCHING THE ENCODER, AN EDGE OR PINS CAN BE USED ALONG DATUMS [B] AND [C] AS LONG AS IT DOES NOT EXTEND BEYOND DIMENSION SHOWN FOR DATUM [C].
BENCHING EDGE OR PINS MUST BE A MINIMUM OF 1.50mm IN HEIGHT FROM MOUNTING SURFACE.

Cable Connector J2 Pinouts	
Pin	Function
1	MA+
2	MA-
3	VIN (3.3 - 5V)
4	SLO-
5	SLO+
6	GND

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN MILLIMETERS.
DIM APPLY AFTER PROCESSING
INTERPRET ALL GEOMETRIC TOLS.
PER ANSI Y14.5M-1994

TOLERANCES ARE:

DECIMALS:	ANGULAR:
.X $\pm$.25	$\pm$ 30 MIN.
.XX $\pm$.13	
.XXX $\pm$.064	

APPROVALS	DATE
DRAWN S.BUTURLIA CHECKED	2/21/2023
S.HAM ENGRG.	3/1/2023
CP-Liang MFG ENG	7/29/2024
R.Pu QA	7/31/2024
K.Venkataraman	8/2/2024

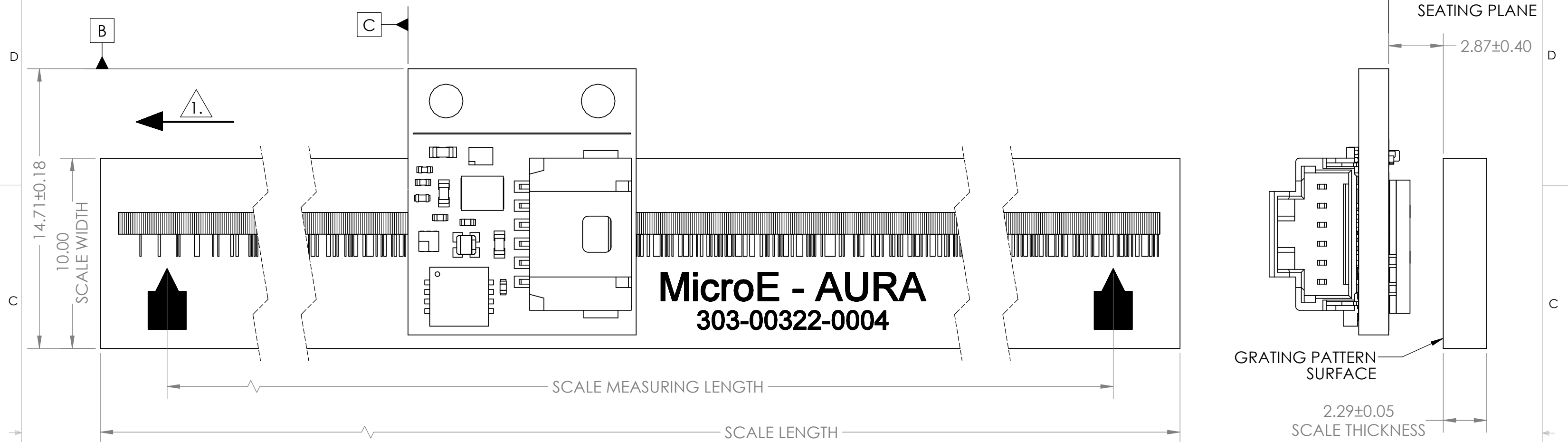
Novanta Corporation
125 Middlesex Tpk
Bedford, MA 01730

DESCRIPTION:

INTERFACE DRAWING, AURA-P
ENCODER W/ABSOLUTE LINEAR GLASS
SCALE (AUR-L-G)

SIZE B	DWG. NO. ID-00433			REV. A
SCALE:	CAD FILE:	 3rd ANGLE PROJECTION	SHEET 1 OF 2	

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Model#	Part Number	Scale Length	Measuring Length
AUR-L-G-0001	303-00322-0001	16mm	9mm
AUR-L-G-0002	303-00322-0002	57mm	50mm
AUR-L-G-0004	303-00322-0004*	202mm	195mm

*Shown for orientation only

NOTES:

1. WHEN THE SCALE MOVES FROM RIGHT TO LEFT DIRECTION (AS INDICATED BY THE ARROW) THE ABSOLUTE VALUE AND INCREMENTAL COUNTS WILL INCREASE.

A Celerá MOTION (Novanta Corporation) 125 Middlesex Tpk. Bedford, MA 01730			
DESCRIPTION: INTERFACE DRAWING, AURA-P ENCODER W/ABSOLUTE LINEAR GLASS SCALE (AUR-L-G)			
SIZE B	DWG. NO. ID-00433	REV. A	
SCALE:	CAD FILE:	 3rd ANGLE PROJECTION	SHEET 2 OF 2