

Programmer Antenna Information

The Q-Tech™ programmer includes a wand antenna which is plugged into the programmer radio card (PRC) which is in turn secured in the PCMCIA slot of the PSION Netbook. The PRC is permanently in place in the PCMCIA slot and cannot be removed without a specialized tool. The wand antenna is designed for repeated attachment and detachment from the PRC. Neither the wand connector nor the PRC connector are designed to attach to other devices, and neither uses an industry standard connector.

The antenna gain, as shown in the attached Absolute Gain Data Sheet, was calculated based on testing performed at NWEMC, and is -5.0 dBi. This calculation was performed by first directly measuring the output from the PRC using specific programmed output power level, and then observing the power output using the wand itself.

Following the Absolute Gain Data sheet are several pages of drawings of the wand antenna. These include drawings showing the inclusion of the wand band gap, which is not readily observed using the external photographs.

ABSOLUTE GAIN DATA SHEET

EUT:	GAP Antenna 1	Work Order:	CAME0017
Serial Number:	None	Date:	11/05/07
Customer:	Cameron Health, Inc.	Temperature:	23.04C
Attendees:	Paul Erlinger	Humidity:	50%
Project:	None	Barometric Pres.:	1018.3mb
Tested by:	Andrey Marcus	Power:	120VAC/60Hz
		Job Site:	OC08

TEST SPECIFICATIONS

Test Method

TEST PARAMETERS

Antenna Height(s) (m) Test Distance (m) 3

COMMENTS

0 degree tilt side one up: Antenna @ 400cm

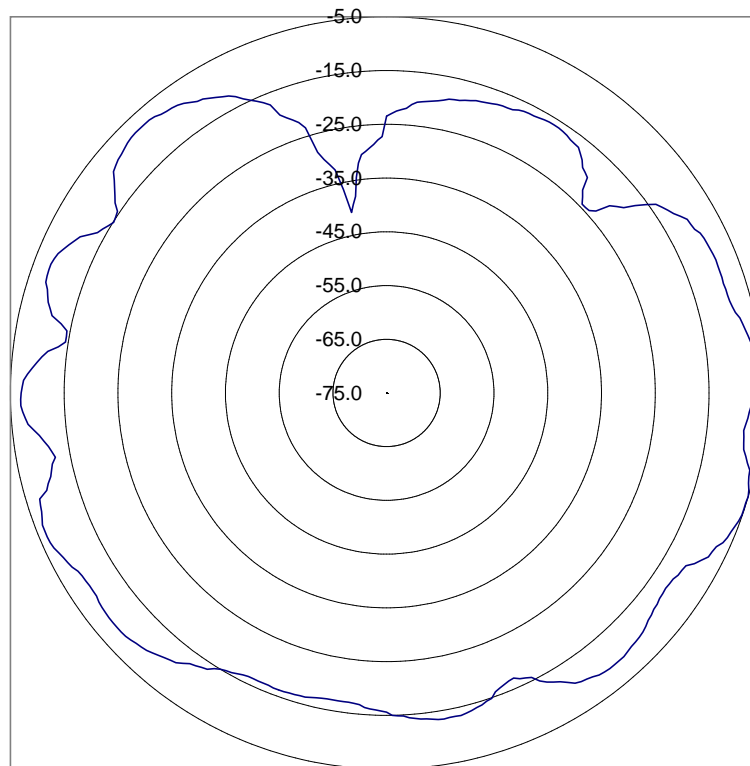
EUT OPERATING MODES

Transmitt Power 0X07

DEVIATIONS FROM TEST STANDARD

Run #	11	Signature
Configuration #	1	
Results		

**Absolute
Gain (dBi)
of AUT**



Frequency 403.50 MHz
Measurement Antenna Polarity Horizontal
Antenna Under Test (AUT) Polarity Horizontal

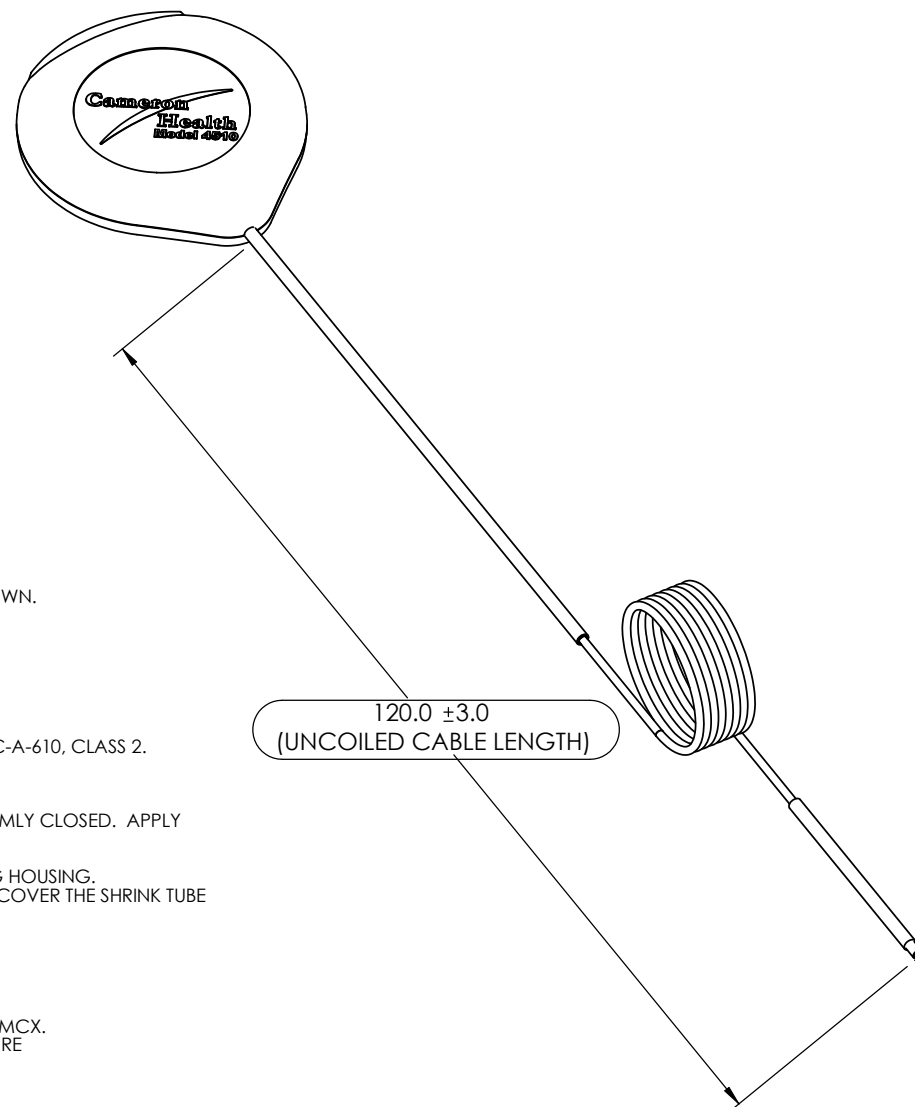
Max Field Strength 69.50 dBuV/m
Max Conducted Power -10.30 dBm

Max Antenna Gain -5.00 dBi*

*Antenna Gain (dBi) calculated from measured field strength and conducted output power

NOTES:

1. INSPECTION DIMENSIONS ARE CIRCLED.
2. CERTIFICATE OF COMPLIANCE REQUIRED WITH EACH SHIPMENT, CONTAINING:
 - A. SUPPLIER'S NAME AND ADDRESS
 - B. CAMERON HEALTH'S NAME
 - C. CAMERON HEALTH'S PURCHASE ORDER NUMBER
 - D. QUANTITY OF PARTS IN SHIPMENT FROM SUPPLIER
 - E. CAMERON HEALTH'S PART NUMBER AND REVISION
 - F. PRODUCT LOT NUMBER OR DATE CODE
 - G. LATEST INSPECTION, RE-INSPECTION DATE, IF APPLICABLE
 - H. STATEMENT CERTIFYING PRODUCT CONFORMANCE TO SPECIFICATION AND TRACEABILITY
 - I. MATERIAL CERTIFICATION
 - J. SIGNATURE AND DATE OF TRANSACTION
3. PARTS SHALL BE CLEAN AND FREE OF ALL DEBRIS, STAINS, SCUFFS, DAMAGE WHEN INSPECTED AT A DISTANCE OF 12-18 INCHES WITH THE UNAIDED EYE.
4. PARTS TO BE PACKAGED AND SHIPPED IN ACCORDANCE WITH BEST PRACTICES TO AVOID DAMAGE.
5. SHIPPING BAGS SHALL BE LABELED AT MINIMUM WITH:
 - A. MANUFACTURER NAME
 - B. CAMERON HEALTH INC. PART NUMBER AND REVISION
 - C. LOT NUMBER
 - D. QUANTITY
6. SOLDER AND CRIMP ITEM 20 TO BELDEN 8216 CABLE.
7. 3M EPS 200 1/4 BL SHRINK TUBE SHALL COVER CONNECTOR AS SHOWN. SHRINK TUBE SHALL BE POSITIONED OVER CONNECTOR TO THE DIMENSION SHOWN.
8. APPLY 2 PIECES OF 3M EPS 200 1/4 BL SHRINK TUBE OVER LONGER SHRINK TUBE TO ACHIEVE DIMENSIONS AS SHOWN.
9. SOLDER INNER STRANDED WIRE TO PAD OF ITEM 40.
10. BEND WIRE THROUGH HOLE IN SOLDER PAD OF ITEM 40 PRIOR TO SOLDERING.
11. ENSURE THE INNER WIRE HAS SLACK TO PREVENT STRESS ON THE SOLDER JOINT.
12. SOLDER JOINTS SHALL BE MADE WITH KESTER LEAD-FREE 331 SN96.5AG3.0CU0.5 AND SHALL MEET CRITERIA OF IPC-A-610, CLASS 2.
13. INTERNAL WIRE SHALL BE ISOLATED FROM BRAIDED SHIELD.
14. COVER 4 HOLES/PEGS WITH LOCTITE 409 ADHESIVE BEFORE ATTACHING THE TOP ITEM 10. HOUSING SHALL BE FIRMLY CLOSED. APPLY ENOUGH ADHESIVE TO COVER THE HOLE/PEG AND PART OF ITEM 40 AROUND THE HOLE/PEG.
15. ADHERE CABLE TO ITEMS 10 (TOP AND BOTTOM) WHERE SHOWN WITH LOCTITE 409 ADHESIVE PRIOR TO CLOSING HOUSING. BEFORE SOLDERING, PULL CABLE TOWARD OPENING OF HOUSING. APPLY ENOUGH ADHESIVE TO COMPLETELY COVER THE SHRINK TUBE WHERE SHOWN.
16. JACK CONTACT AREA MUST BE FREE OF ALL DEBRIS AND FOREIGN MATERIAL WHEN INSPECTED VISUALLY WITH A MAGNIFYING GLASS AT 3X MAGNIFICATION.
17. VERIFY CONNECTOR FIT WITH CAMERON HEALTH PART NUMBER 103301-002 CONNECTOR, PCB, EDGEMOUNT, MMCX. VISUALLY INSPECT BOTH CONNECTORS WITH THE UNAIDED EYE BEFORE AND AFTER THE FIT VERIFICATION TO ENSURE THAT THEY ARE FREE OF DAMAGE. CONNECTORS MUST ENGAGE EACH OTHER FULLY.
18. DELETED
19. THE OUTER JACKET AND BRAID (PART OF CABLE) MUST BE COMPLETELY REMOVED AS SHOWN OVER THIS DIMENSION.
20. DIMENSION APPLIES TO EPS200 BL 1/8 SHRINK TUBE.
21. SLIGHT BULGING OF EPS200 1/4 BL SHRINK TUBE IN THIS AREA IS PERMISSIBLE.
22. A SEGMENT OF THE EPS200 1/4 BL SHRINK TUBE IS OMITTED IN THIS SECTION VIEW FOR CLARITY.
23. THIS DIMENSION SHALL BE INSPECTED AT A 100% SAMPLING RATE BY THE SUPPLIER.



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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES (mm)
 TOLERANCES:
 FRACTIONAL $\pm 1/16$
 ANGULAR: $\pm 1^\circ$
 ONE PLACE DECIMAL ± 0.1
 TWO PLACE DECIMAL ± 0.05
 THREE PLACE DECIMAL ± 0.010
 FOUR PLACE DECIMAL ± 0.0050

MATERIAL:

N/A

FINISH:

N/A

DO NOT SCALE DRAWING

Cameron Health, Inc.
 SAN CLEMENTE, CA

TITLE:

WAND, TELEMETRY, PROGRAMMER

SIZE
A

DWG. NO.

103300-002

REV.
B

file: 103300-002 Rev B.pdf

SHEET 1 OF 5

5

4

3

2

1

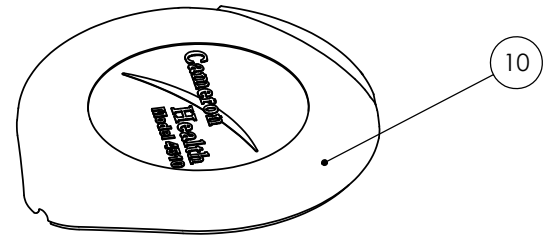
E

D

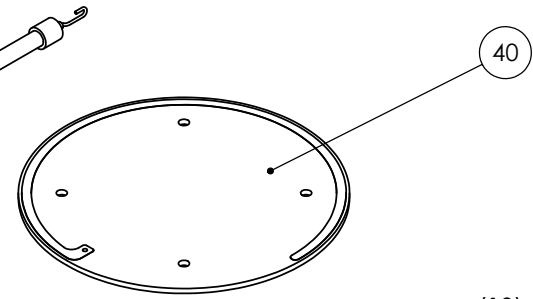
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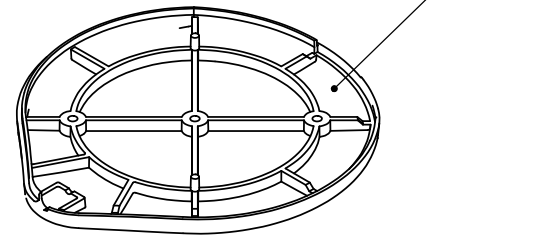
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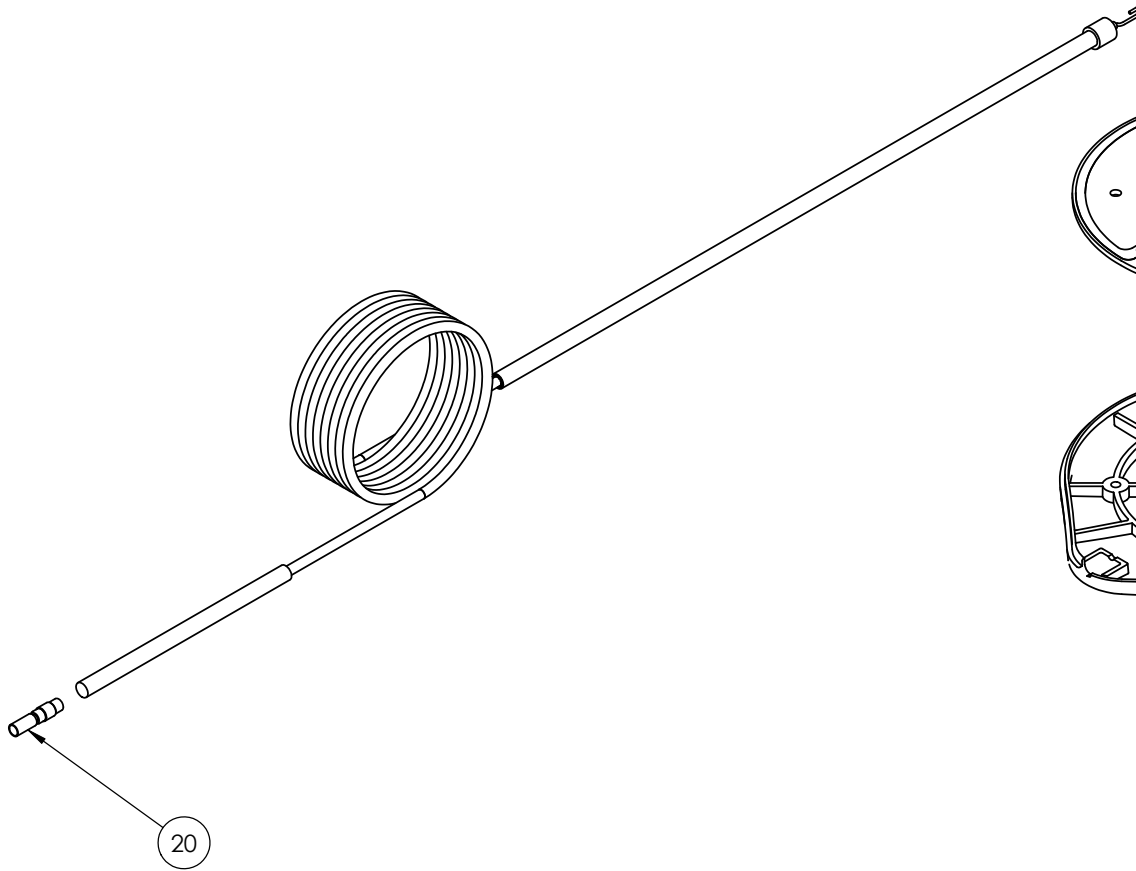
(10)



40



(10)



20

SIZE	DWG. NO.	REV.
A	103300-002	B
file: 103300-002 Rev B.pdf		SHEET 2 OF 5

5 4 3 2 1

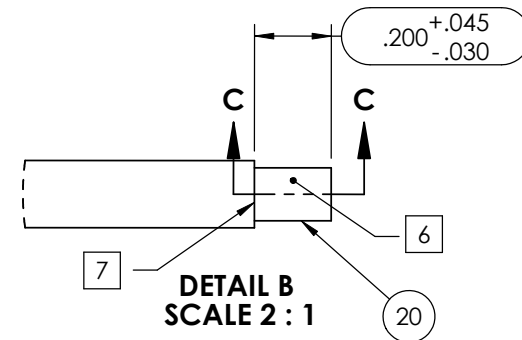
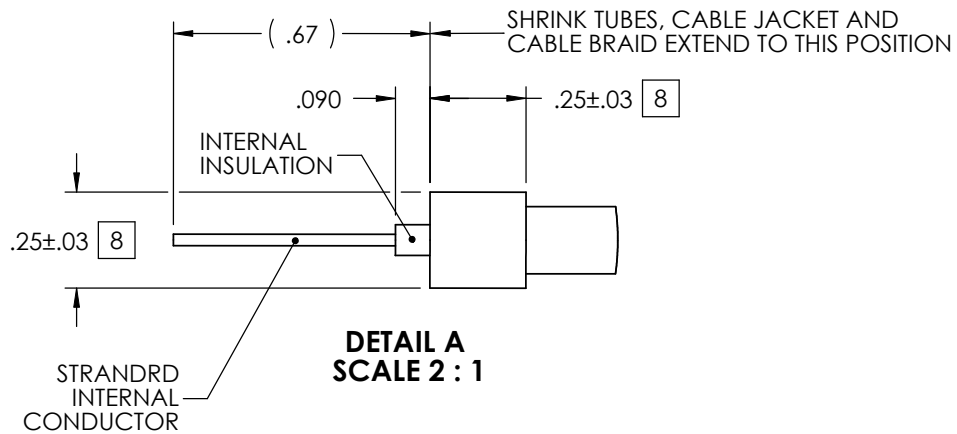
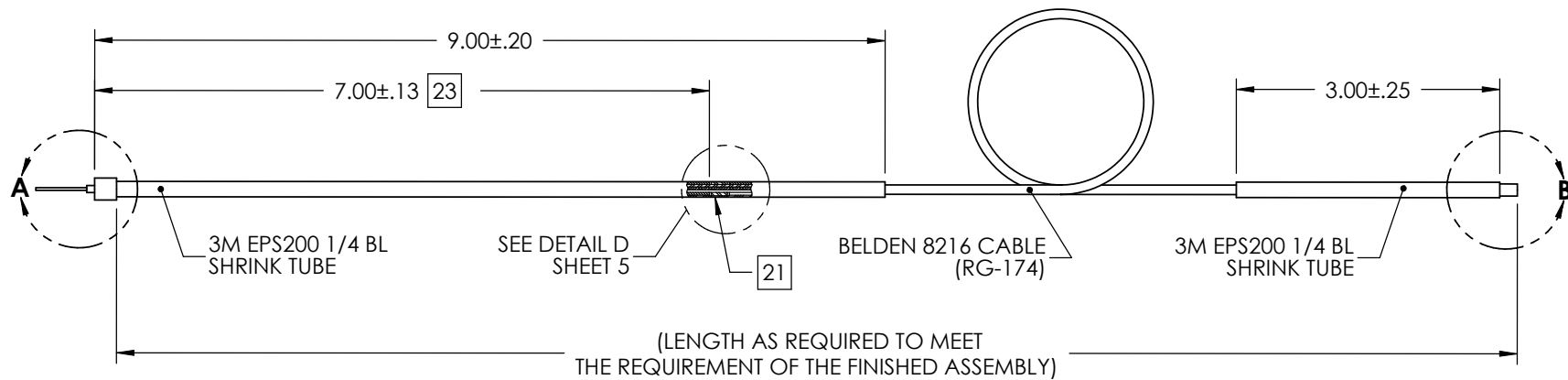
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D

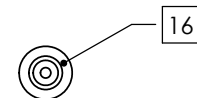
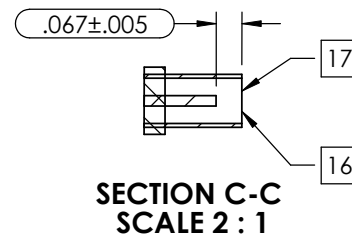
C

B

A



**CABLE DETAILS
WAND NOT SHOWN FOR CLARITY**



SIZE A	DWG. NO. 103300-002	REV. B
file: 103300-002 Rev B.pdf		SHEET 3 OF 5

5

4

3

2

1

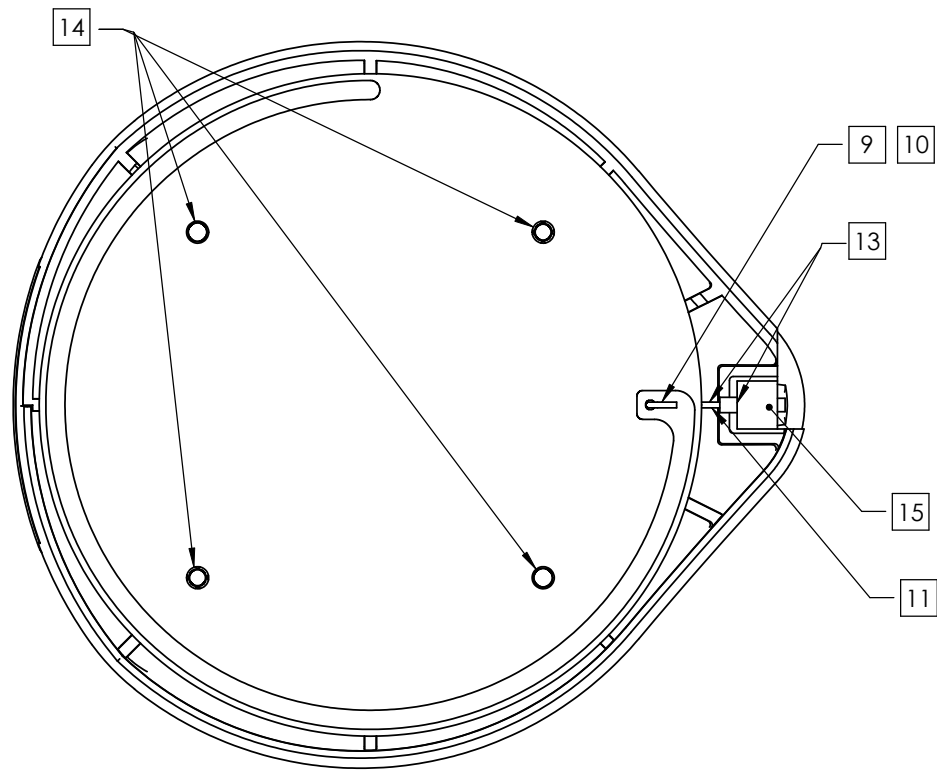
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D

C

B

A



SIZE A	DWG. NO. 103300-002	REV. B
file: 103300-002 Rev B.pdf		SHEET 4 OF 5

5

4

3

2

1

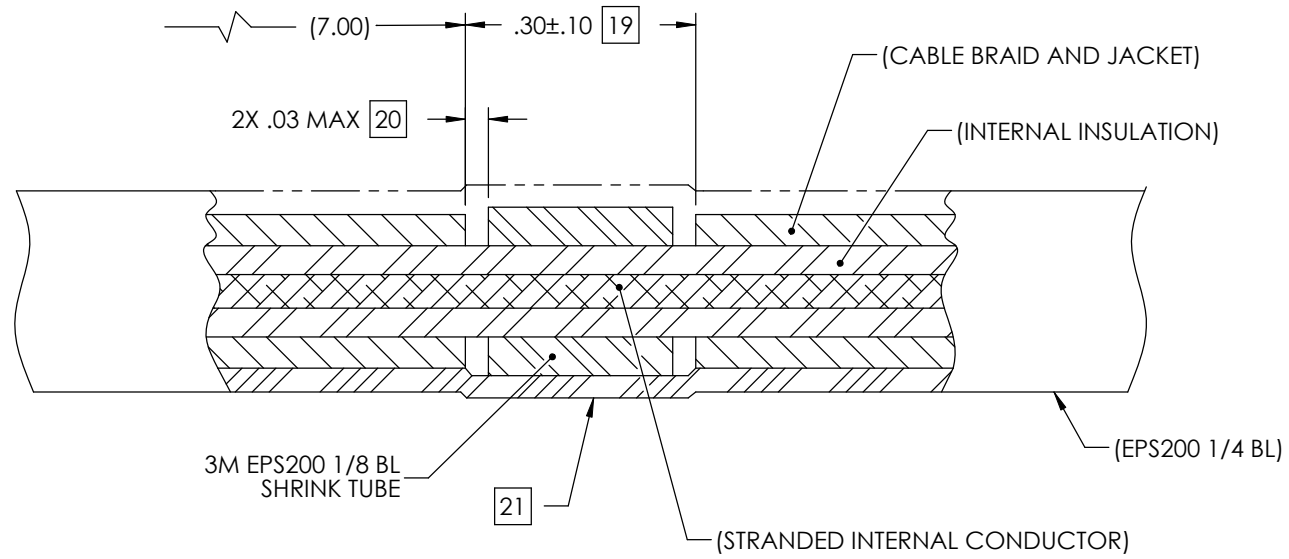
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D

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B

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DETAIL D
SCALE 8 : 1 [22]

SIZE A	DWG. NO. 103300-002	REV. B
file: 103300-002 Rev B.pdf		SHEET 5 OF 5