



ESD SENSITIVE

DO NOT SCALE FROM THIS PRINT

TABLE 1: ASSEMBLY LENGTH LIMITS [cm]												
FIBER TYPE	MIN							MAX				
	END OPTION							HEAT SINK				
	-01	-02	-07	-0A	-0C	-0E	-1	-2	-3	-4		
-5	11	11	10	9	9	8	100	100	50	100		
-6	11	11	10	9	9	8	100	100	50	100		
-7	14	14	12	11	13	10	300	300	300	300		
-8	12	12	10	9	11	8	300	300	300	300		

TABLE 2: LENGTH TOLERANCE	
ASSEMBLY LENGTH (cm)	TOLERANCE (cm)*
000-016	±0.16
017-999	±1%

* ROUNDED UP TO 2 DECIMAL PLACES

ETUO-X12-XX-XXX-0-X-1-X-XX

TYPE
-T12: x12 Tx
-R12: x12 Rx

DATA RATE
-10: 10.3125 Gbps

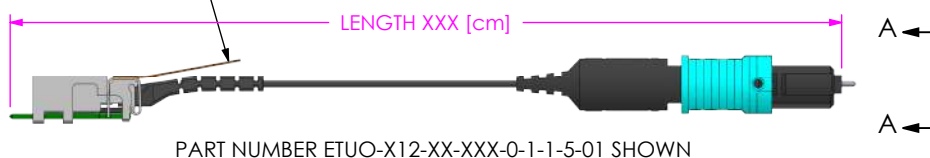
ASSEMBLY LENGTH
-XXX: LENGTH (cm) SEE TABLES 1, 2

HEAT SINK
-1: FLAT
-2: PIN FIN
-3: FLAT WITH GROOVE (SEE NOTE 2)
-4: PCIe@ PIN FIN

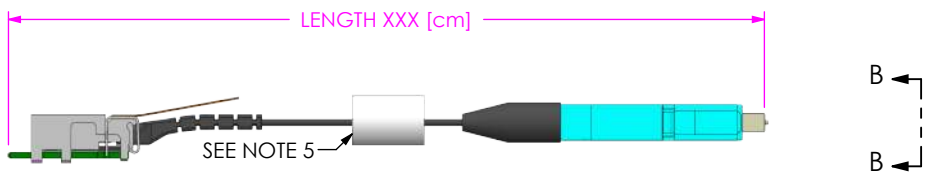
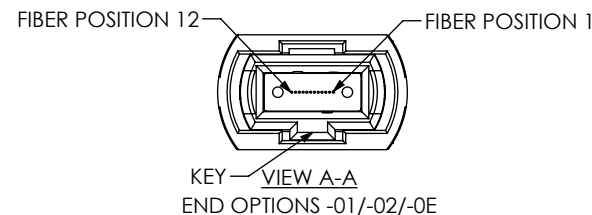
END OPTION
-01: MTP@ MALE
-02: MTP@ FEMALE
-07: MXC@ INTERNAL PLUG
-0A: VITA 66.1/66.4 READY (SEE NOTE 8)
-0C: MT38999 MALE (SEE NOTE 9)
-0E: MPO PLUS@ BAYONET MALE

FIBER TYPE
-5: BLACK JACKETED RIBBON WITH BOOT
-6: BLACK JACKETED RIBBON
-7: BLACK LOOSE TUBE WITH BOOT
-8: BLACK LOOSE TUBE

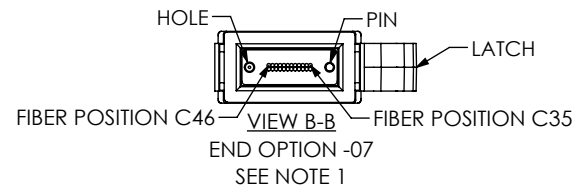
ORANGE TAB INDICATES T12
BLUE TAB INDICATES R12



PART NUMBER ETUO-X12-XX-XXX-0-1-1-5-01 SHOWN



PART NUMBER ETUO-X12-XX-XXX-0-1-1-5-07 SHOWN



NOTES:

1. QUANTITY OF LENSES PRESENT MAY VARY. FIBER POSITION DOES NOT CHANGE REGARDLESS OF THE NUMBER OF LENSES PRESENT
2. GROOVE ALLOWS ONE JACKETED RIBBON (FIBER TYPE -5/-6) OF CABLE LENGTH MAX 50 CM OR TWO CABLES OF JACKETED LOOSE TUBE (FIBER TYPE -7/-8) TO PASS ABOVE HEAT SINK AND UNDER COLD PLATE
3. FIREFLY MUST BE INSTALLED IN A NO-TENSION STATE FREE FROM DYNAMIC FLEXING
4. ALL MTP@/MPO ARE INTERMATEABLE WITH CONNECTOR ADHERING TO TIA-604-5
5. ALL CABLES WITH A LENGTH GREATER THAN 50 cm ARE LABELED. LABEL TO CONTAIN PART NUMBER AND SERIAL NUMBER INFORMATION
6. DUST CAPS REMOVED FROM ALL VIEWS FOR CLARITY
7. YELLOW LATCH PINS NOT SHOWN FOR CLARITY. SEE FIREFLY INSTALLATION INSTRUCTIONS FOR MORE DETAILS.
8. FOR USE WITH TE VITA 66.1 (2000974-1) AND VITA 66.4 (2226881-1) DAUGHTER CARD PART NUMBERS
9. ASSEMBLIES SHIPPED WITH AMPHENOL PART NUMBER CF-594711-01S INSTALLED

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. ALL DIMENSIONS ARE FOR REFERENCE ONLY

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e-Mail: info@SAMTEC.com code 55322

MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 1:1

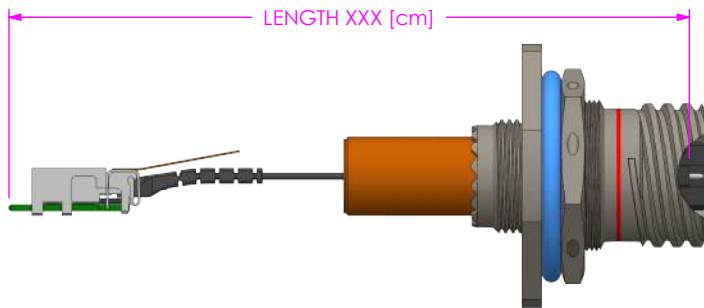
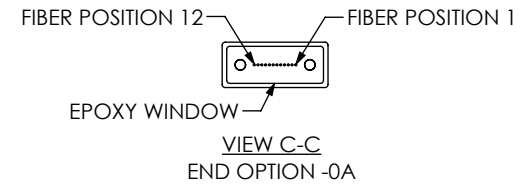
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EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY

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ETUO-X12-XX-XXX-0-X-1-X-XX

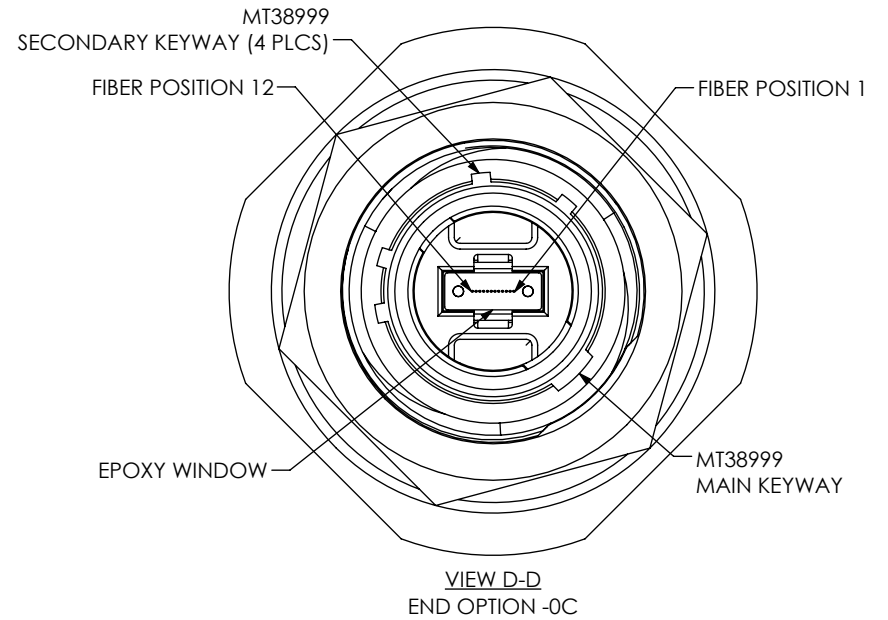
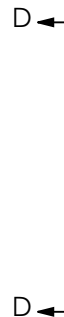
BY: AARON B. 04/17/2020 SHEET 1 OF 11




PART NUMBER ETUO-X12-XX-XXX-0-1-1-5-0A SHOWN



PART NUMBER ETUO-X12-XX-XXX-0-1-1-5-0C SHOWN



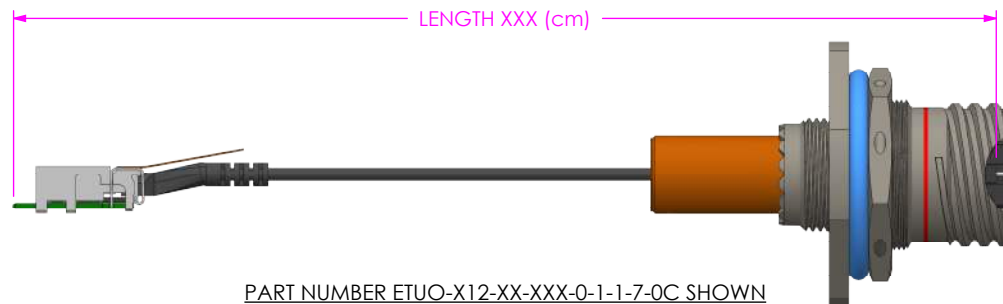
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<p>DO NOT SCALE DRAWING SHEET SCALE: 1:1</p>	<p>DESCRIPTION: EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY</p> <p>DWG. NO. ETUO-X12-XX-XXX-0-X-1-X-XX</p> <p>BY: AARON B. 04/17/2020 SHEET 2 OF 11</p>



PART NUMBER ETUO-X12-XX-XXX-0-1-1-7-01 SHOWN



PART NUMBER ETUO-X12-XX-XXX-0-1-1-7-0A SHOWN



PART NUMBER ETUO-X12-XX-XXX-0-1-1-7-0C SHOWN



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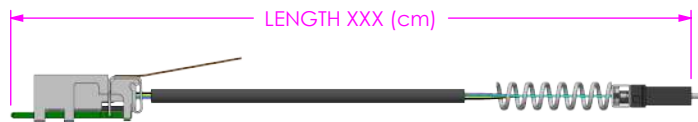


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<p>DO NOT SCALE DRAWING</p>	<p>DESCRIPTION: EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY</p>
<p>SHEET SCALE: 1:1</p>	<p>DWG. NO. ETUO-X12-XX-XXX-0-X-1-X-XX BY: AARON B. 04/17/2020 SHEET 3 OF 11</p>



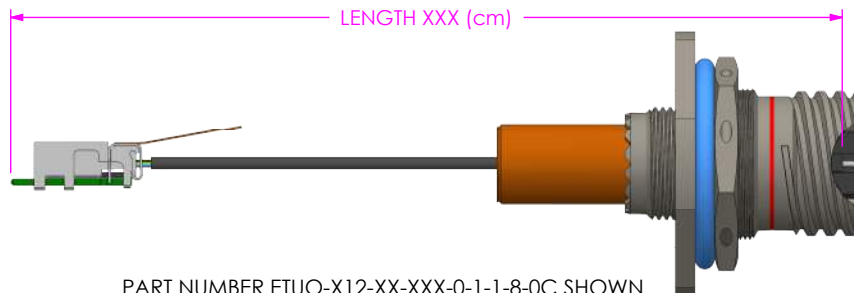
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PART NUMBER ETUO-X12-XX-XXX-0-1-1-8-0A SHOWN



PART NUMBER ETUO-X12-XX-XXX-0-1-1-8-02 SHOWN



PART NUMBER ETUO-X12-XX-XXX-0-1-1-8-0C SHOWN



PART NUMBER ETUO-X12-XX-XXX-0-1-1-8-07 SHOWN



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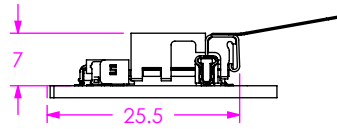
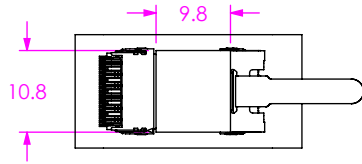
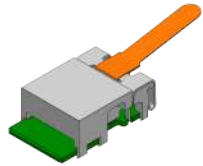
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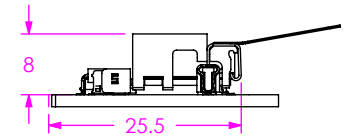
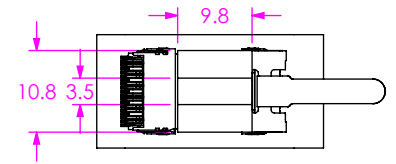
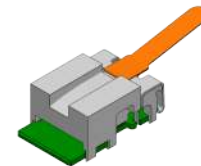
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 ETUO-X12-XX-XXX-0-X-1-X-XX

SHEET SCALE: 1:1

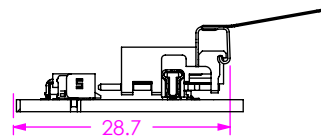
BY: AARON B. 04/17/2020 SHEET 4 OF 11



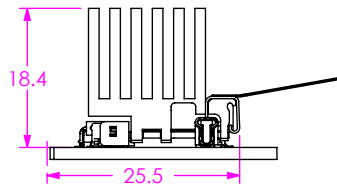
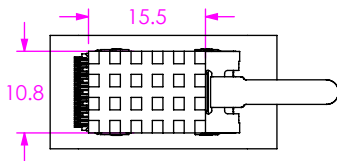
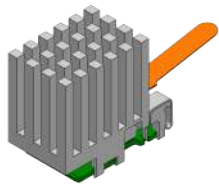
-1 FLAT HEAT SINK



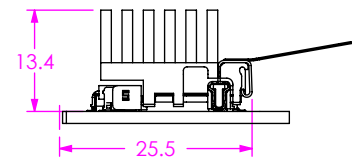
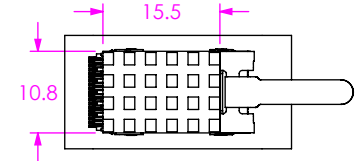
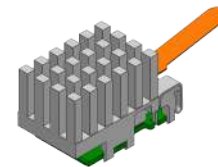
-3 FLAT HEAT SINK WITH PASS THROUGH



KEEP OUT AREA FOR DE-MATING
TYPICAL FOR HEAT SINKS -1/-2/-3/-4
REFER TO UEC5 FOOTPRINT DRAWING
FOR DETAILED KEEPOUT AREAS



-2 PIN-FIN HEAT SINK



-4 LOW-PROFILE PIN-FIN HEAT SINK

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SHEET SCALE: 1:1

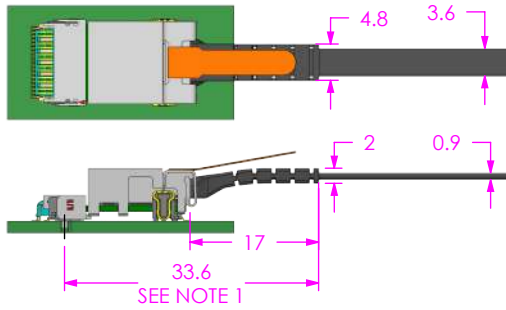


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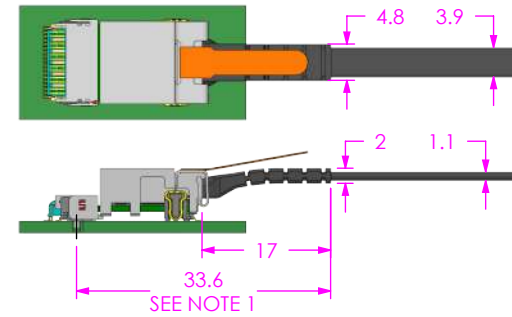
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EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY

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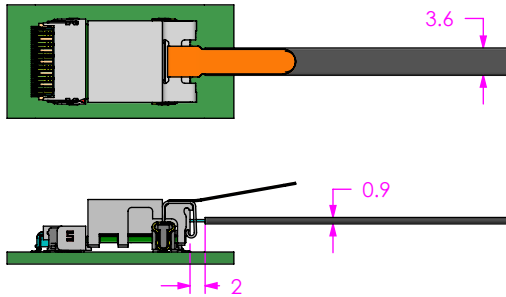
BY: AARON B. 04/17/2020 SHEET 5 OF 11



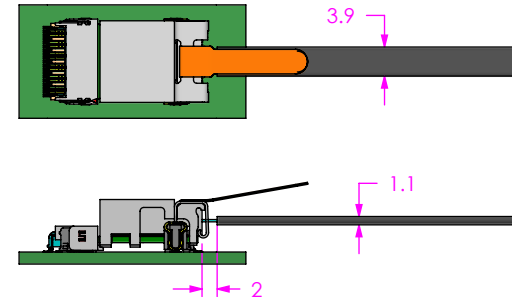
-5 FIBER TYPE, ≤ 50 cm LENGTH



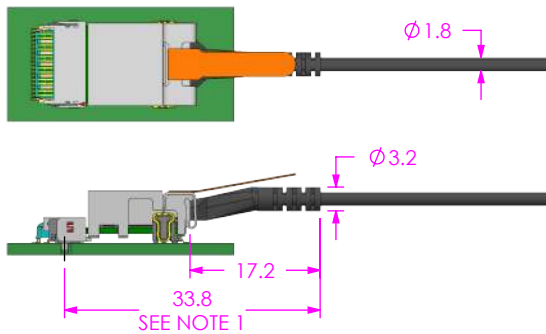
-5 FIBER TYPE, > 50 cm LENGTH



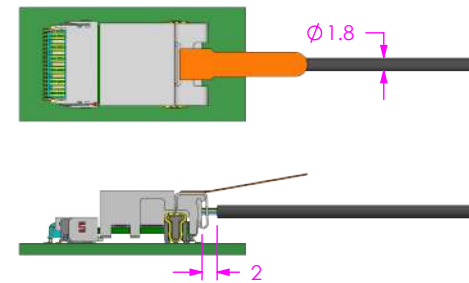
-6 FIBER TYPE, ≤ 50 cm LENGTH



-6 FIBER TYPE, > 50 cm LENGTH



-7 FIBER TYPE



-8 FIBER TYPE

NOTES:
1. DIMENSIONED FROM THE CENTER OF THE ALIGNMENT HOLE AS SHOWN ON THE UEC5/UCC8 CONNECTOR FOOTPRINT

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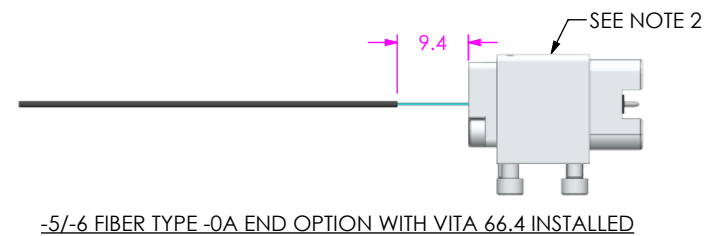
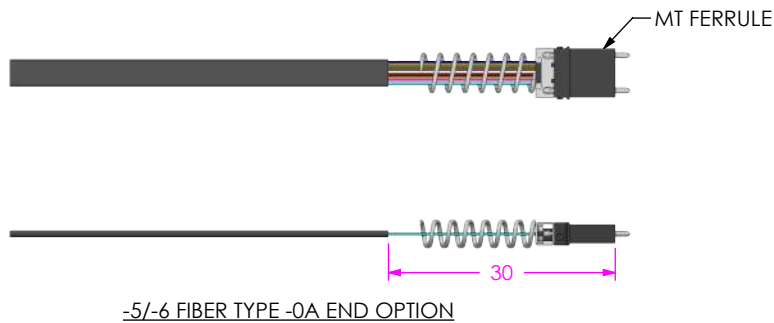
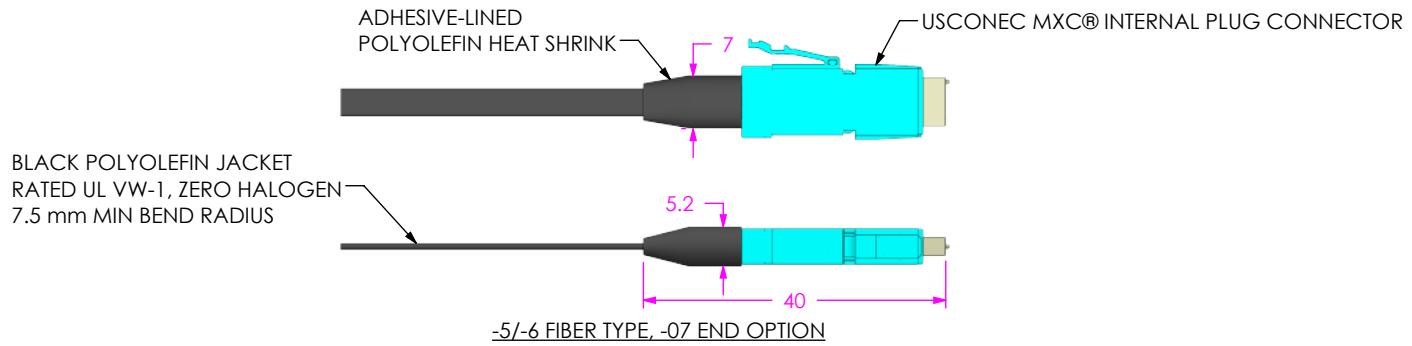
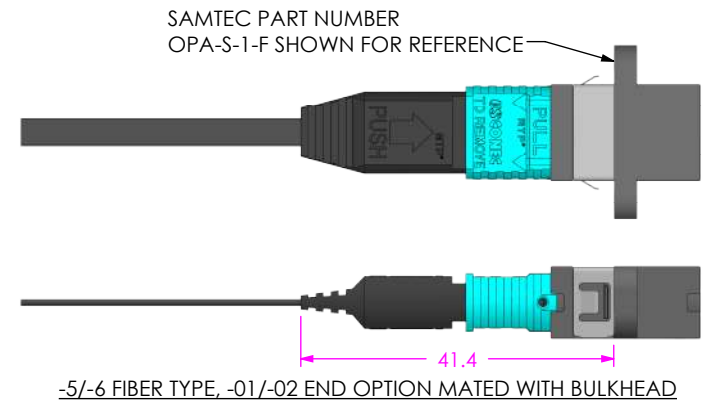
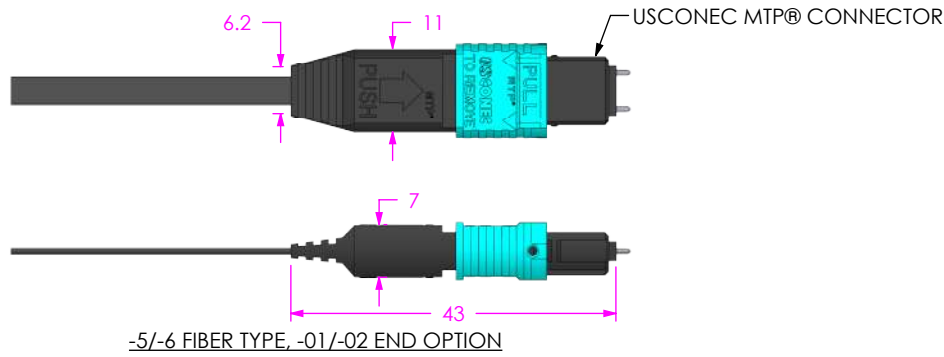
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DO NOT SCALE DRAWING SHEET SCALE: 1:1

DESCRIPTION:
EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY

DWG. NO.
ETUO-X12-XX-XXX-0-X-1-X-XX

BY: AARON B. 04/17/2020 SHEET 6 OF 11



NOTES:

1. DUST CAPS/PLUGS NOT SHOWN FOR CLARITY
2. VITA 66.4 CONNECTOR HOUSING NOT INCLUDED WITH ASSEMBLY, SHOWN FOR REFERENCE ONLY.

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SHEET SCALE: 1:1

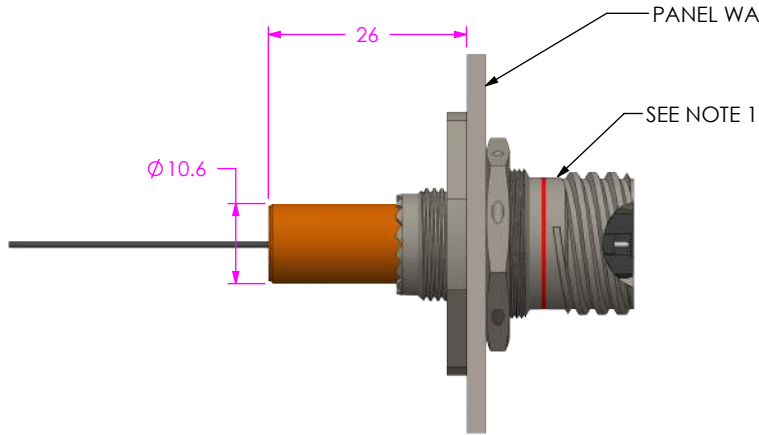


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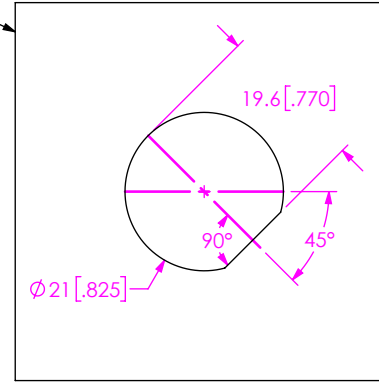
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EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY

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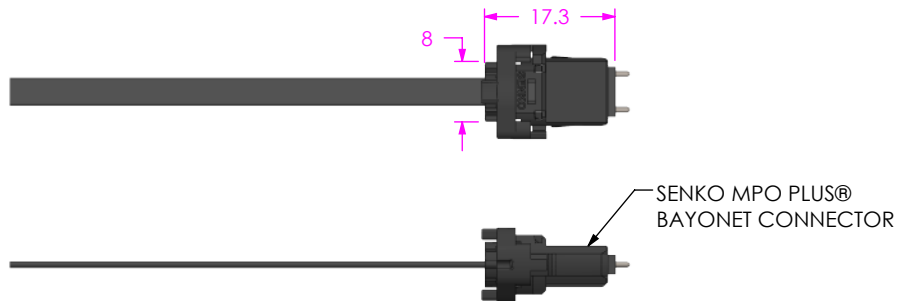
BY: AARON B. 04/17/2020 SHEET 7 OF 11



-5/-6 FIBER TYPE -0C END OPTION

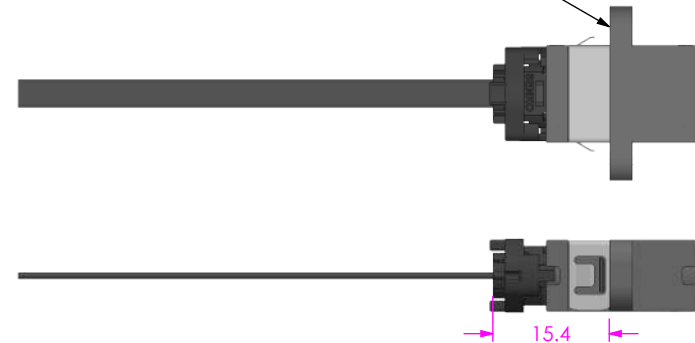


-0C END OPTION RECOMMENDED PANEL CUTOUT
mm[in]



-5/-6 FIBER TYPE -0E END OPTION

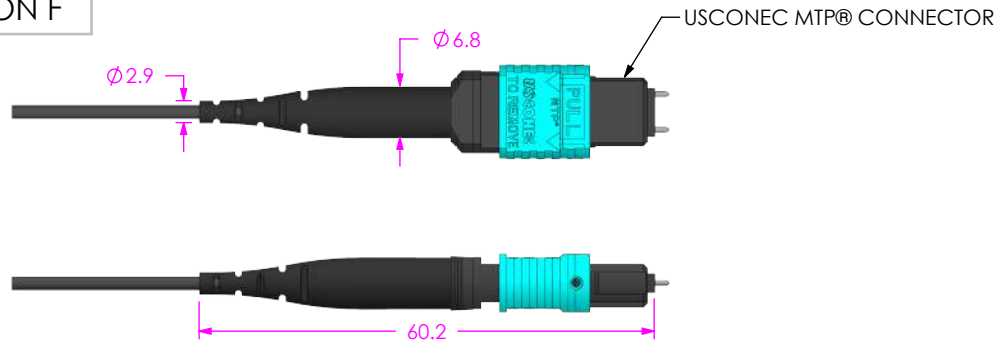
SAMTEC PART NUMBER OPA-S-1-F SHOWN FOR REFERENCE



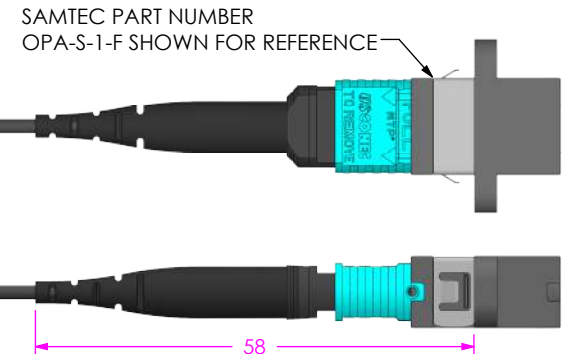
-5/-6 FIBER TYPE -0E END OPTION MATED WITH BULKHEAD

- NOTES:
1. AMPHENOL PART NUMBER CF-594711-01S. DIMENSIONS GIVEN FOR REFERENCE ONLY

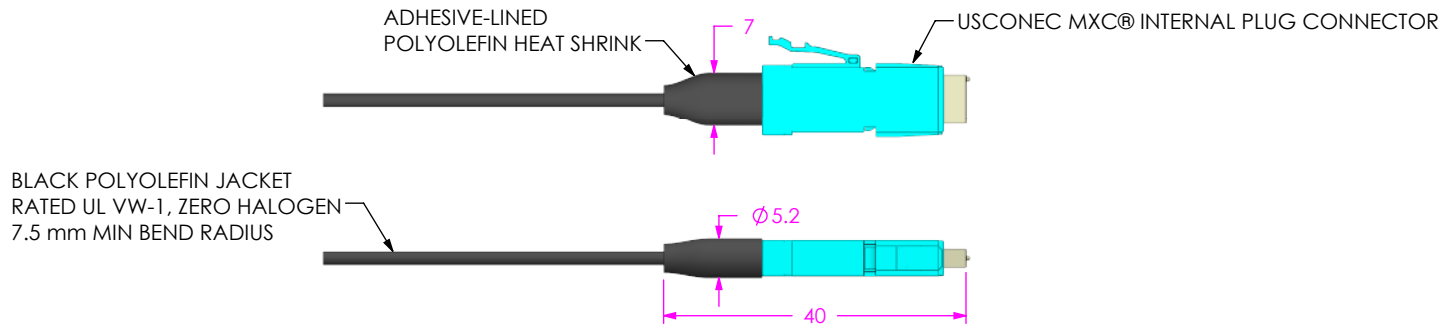
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<p>DO NOT SCALE DRAWING SHEET SCALE: 1:1</p>	<p>DESCRIPTION: EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY</p> <p>DWG. NO. ETUO-X12-XX-XXX-0-X-1-X-XX</p> <p>BY: AARON B. 04/17/2020 SHEET 8 OF 11</p>



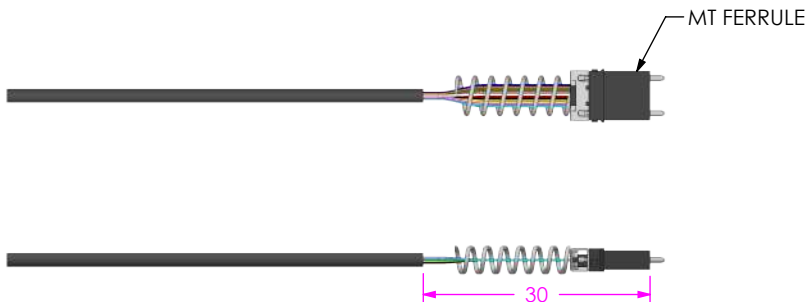
-7/-8 FIBER TYPE, -01/-02 END OPTION



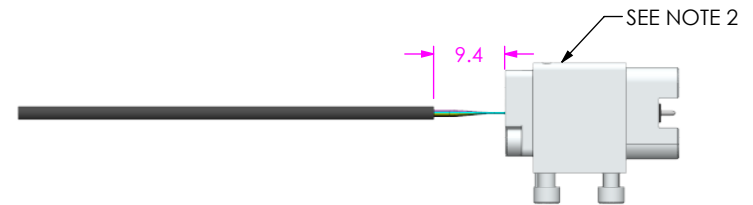
-7/-8 FIBER TYPE, -01/-02 END OPTION MATED WITH BULKHEAD



-7/-8 FIBER TYPE, -07 END OPTION



-7/-8 FIBER TYPE, -0A END OPTION



-7/-8 FIBER TYPE, -0A END OPTION WITH VITA 66.4 INSTALLED

- NOTES:
1. DUST CAPS/PLUGS NOT SHOWN FOR CLARITY
 2. VITA 66.4 CONNECTOR HOUSING NOT INCLUDED WITH ASSEMBLY, SHOWN FOR REFERENCE ONLY.

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 e-Mail info@SAMTEC.com code 55322

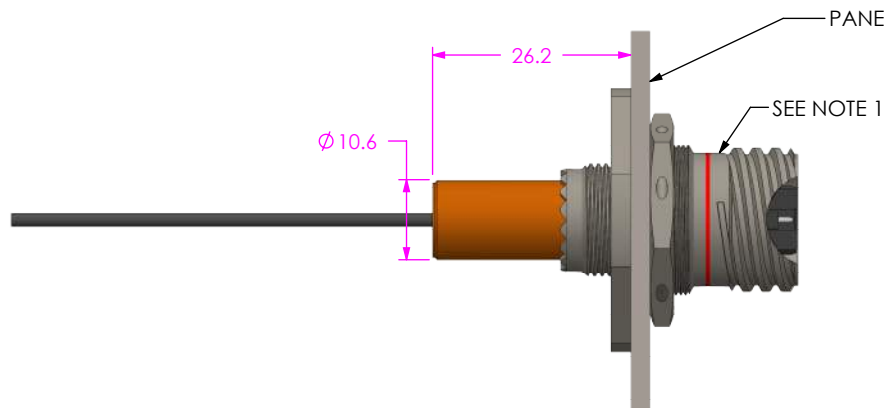
DO NOT SCALE DRAWING

DESCRIPTION: EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY

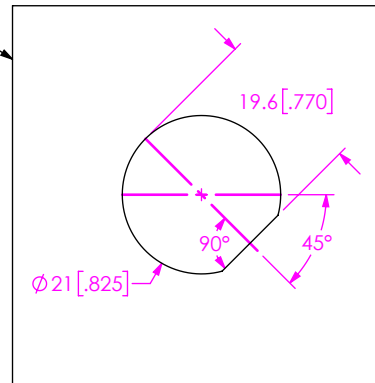
SHEET SCALE: 1:1

DWG. NO. ETUO-X12-XX-XXX-0-X-1-X-XX

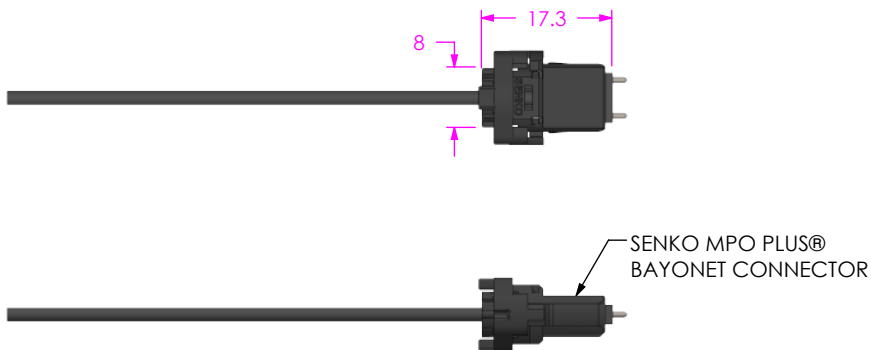
BY: AARON B. 04/17/2020 SHEET 9 OF 11



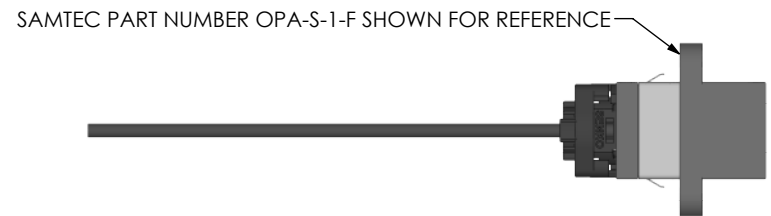
-7/-8 FIBER TYPE -0C END OPTION (SHOWN WITH PANEL)



-0C END OPTION RECOMMENDED PANEL CUTOUT
mm[in]



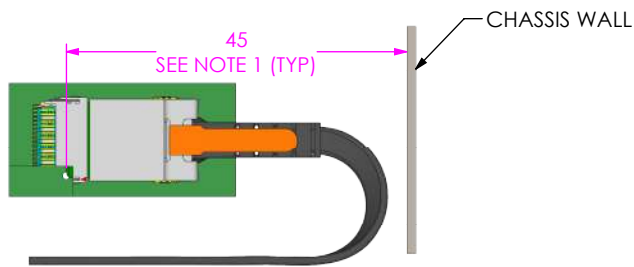
-7/-8 FIBER TYPE -0E END OPTION



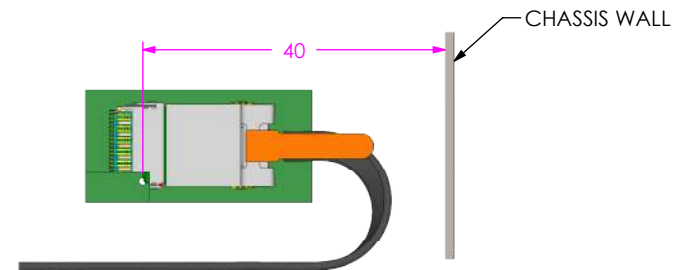
-7/-8 FIBER TYPE -0E END OPTION MATED WITH BULKHEAD

- NOTES:
1. AMPHENOL PART NUMBER CF-594711-01S. DIMENSIONS GIVEN FOR REFERENCE ONLY

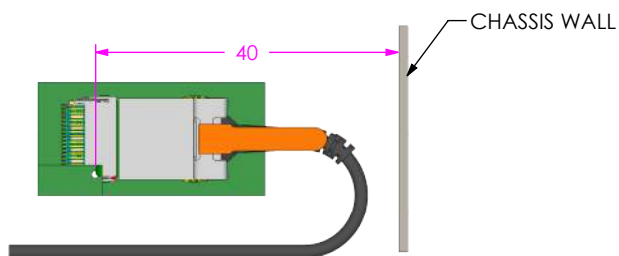
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	<p>DO NOT SCALE DRAWING</p>	<p>DESCRIPTION: EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY</p>
<p>SHEET SCALE: 1:1</p>	<p>DWG. NO. ETUO-X12-XX-XXX-0-X-1-X-XX</p>	<p>BY: AARON B. 04/17/2020 SHEET 10 OF 11</p>



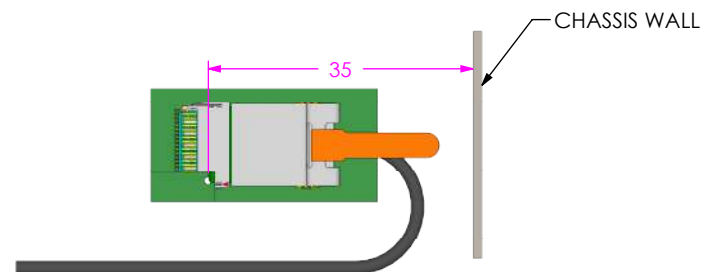
-5 FIBER TYPE RECOMMENDED CABLE ESCAPE CLEARANCE



-6 FIBER TYPE RECOMMENDED CABLE ESCAPE CLEARANCE



-7 FIBER TYPE RECOMMENDED CABLE ESCAPE CLEARANCE



-8 FIBER TYPE RECOMMENDED CABLE ESCAPE CLEARANCE

NOTES:

1. DIMENSIONED FROM THE CENTER OF THE ALIGNMENT PIN HOLE AS SHOWN ON THE UEC5/UCC8 CONNECTOR FOOTPRINT
2. DUE TO THE COMPLIANT NATURE OF FIBER CABLE AND THE MOLDED FIBER BOOT COMPONENTS, THE DIMENSIONS SHOWN ON THIS SHEET ARE FOR GUIDANCE ONLY. EACH APPLICATION IS UNIQUE AND MAY RESULT IN UNIQUE CLEARANCE DIMENSIONS FOR THE CABLE ESCAPE.

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	<p>DO NOT SCALE DRAWING SHEET SCALE: 1:1</p>	<p>DESCRIPTION: EXTENDED TEMPERATURE OPTICAL FIREFLY ASSEMBLY</p> <p>DWG. NO. ETUO-X12-XX-XXX-0-X-1-X-XX</p>
<p>BY: AARON B. 04/17/2020 SHEET 11 OF 11</p>		