

**ESD SENSITIVE**DO NOT
SCALE FROM
THIS PRINT

TABLE 1: ASSEMBLY LENGTH LIMITS [cm]												
FIBER TYPE	MIN				MAX							
	END OPTION				HEAT SINK							
	-21	-22	-27	-2E	-1	-2	-3	-4	-1	-2	-3	-4
-4	17	17	15	13	999	999	999	999	999	999	999	999
-5	13	13	12	10	100	100	50	100	100	100	50	100
-6	13	13	12	10	100	100	50	100	100	100	50	100
-7	16	16	14	12	300	300	300	300	300	300	300	300
-8	14	14	12	10	300	300	300	300	300	300	300	300

TABLE 2: LENGTH TOLERANCE	
ASSEMBLY LENGTH (cm)	TOLERANCE (cm)*
009-016	±0.16
017-999	±1%

* ROUNDED UP TO 2 DECIMAL PLACES

ECUO-Y12-XX-XXX-0-X-1-X-XX

DATA RATE

-14: 14 Gbps
-16: 16.1 Gbps

ASSEMBLY LENGTH

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

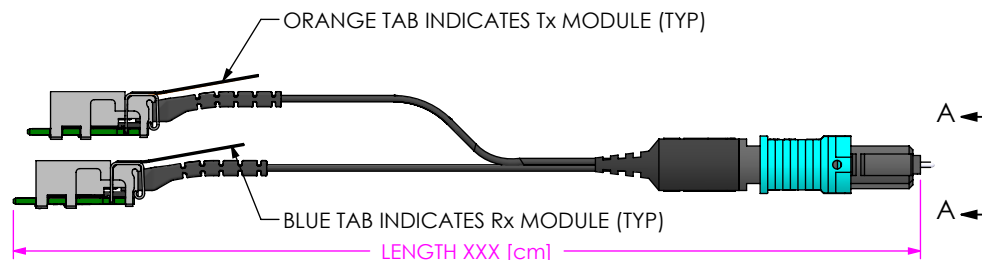
END OPTION

-21: MTP® MALE
-22: MTP® FEMALE
-27: MXP® INTERNAL PLUG
-2E: MPO PLUS® BAYONET MALE

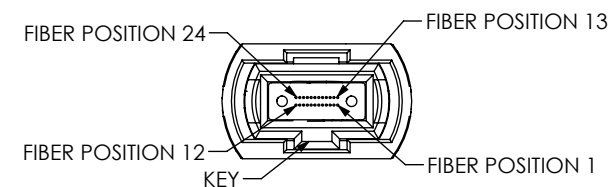
FIBER TYPE

-4: AQUA LOOSE TUBE WITH BOOT
-5: BLACK JACKETED RIBBON WITH BOOT
-6: BLACK JACKETED RIBBON
-7: BLACK LOOSE TUBE WITH BOOT
-8: BLACK LOOSE TUBE

HEAT SINK

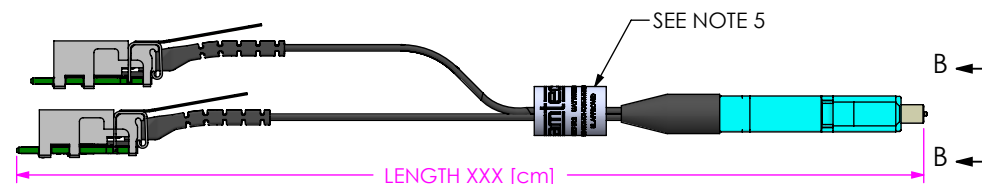
-1: FLAT
-2: PIN FIN
-3: FLAT WITH GROOVE (SEE NOTE 2)
-4: PCIe® PIN FIN (-14 DATA RATE ONLY)

PART NUMBER ECUO-Y12-XX-XXX-0-1-1-5-21 SHOWN

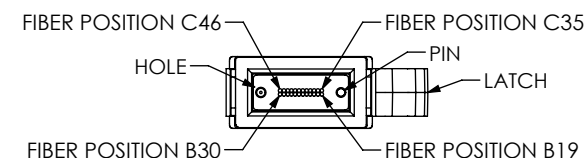


VIEW A-A

END OPTIONS -21/-22/-2E



PART NUMBER ECUO-Y12-XX-XXX-0-1-1-5-27 SHOWN



VIEW B-B

END OPTION -27
SEE NOTE 1

NOTES:

- QUANTITY OF LENSES PRESENT MAY VARY. FIBER POSITION DOES NOT CHANGE REGARDLESS OF THE NUMBER OF LENSES PRESENT
- 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
- FIREFLY MUST BE INSTALLED IN A NO-TENSION STATE FREE FROM DYNAMIC FLEXING
- ALL MTP®/MPO ARE INTERMATEABLE WITH ADAPTERS ADHERING TO TIA-604-5
- ALL CABLES WITH A LENGTH GREATER THAN 50 cm ARE LABELED. LABEL TO CONTAIN PART NUMBER AND SERIAL NUMBER INFORMATION
- DUST CAPS REMOVED FROM ALL VIEWS FOR CLARITY
- YELLOW LATCH PINS NOT SHOWN FOR CLARITY. SEE FIREFLY INSTALLATION INSTRUCTIONS FOR MORE DETAILS.

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

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MATERIAL: DO NOT SCALE DRAWING

SHEET SCALE: 1:1

520 PARK EAST BLVD., NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:

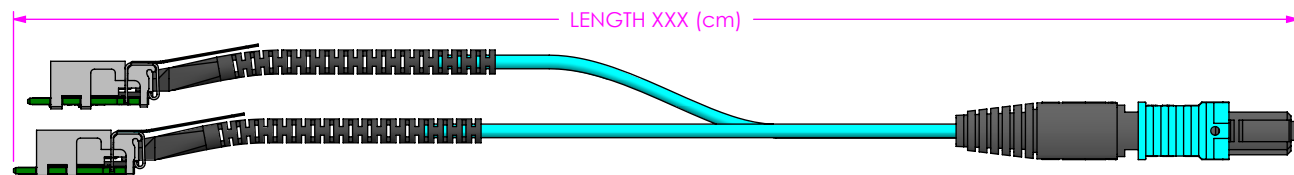
OPTICAL FIREFLY ASSEMBLY

DWG. NO.

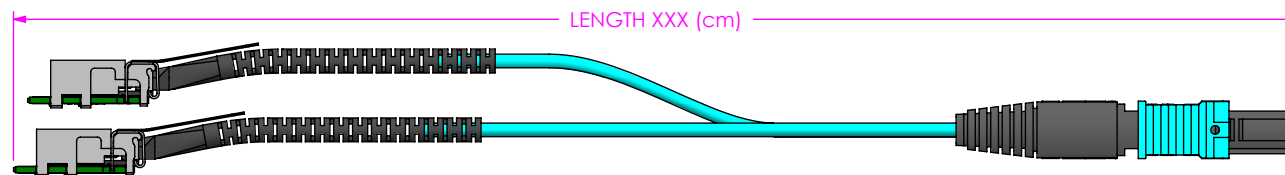
ECUO-Y12-XX-XXX-0-X-1-X-XX

BY: AARON B. 07/21/2020

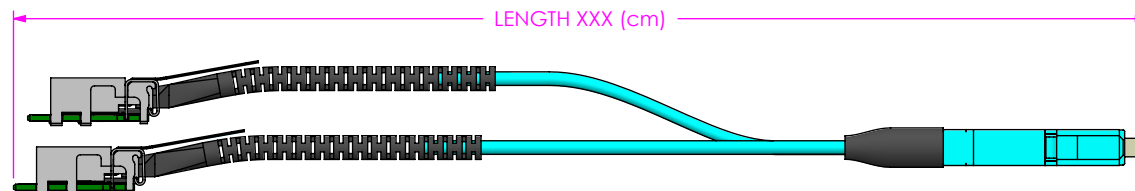
SHEET 1 OF 10



PART NUMBER ECUO-Y12-XX-XXX-0-1-1-4-21 SHOWN



PART NUMBER ECUO-Y12-XX-XXX-0-1-1-4-22 SHOWN



PART NUMBER ECUO-Y12-XX-XXX-0-1-1-4-27 SHOWN



PART NUMBER ECUO-Y12-XX-XXX-0-1-1-4-2E SHOWN

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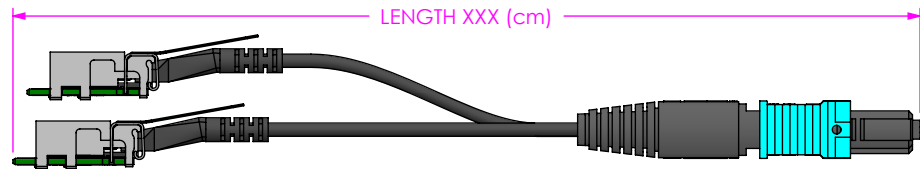
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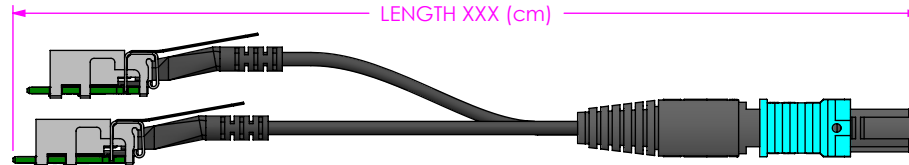
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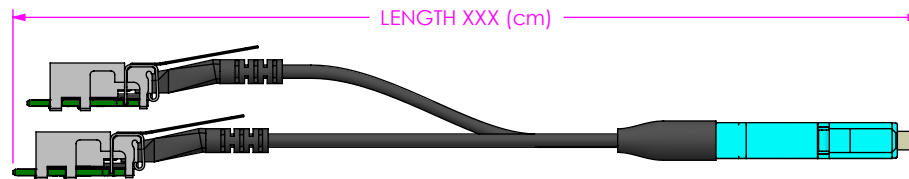
BY: AARON B. 07/21/2020 SHEET 2 OF 10



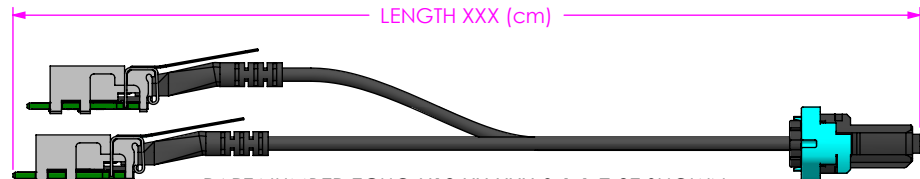
PART NUMBER ECUO-Y12-XX-XXX-0-1-1-7-21 SHOWN



PART NUMBER ECUO-Y12-XX-XXX-0-1-1-7-22 SHOWN



PART NUMBER ECUO-Y12-XX-XXX-0-1-1-7-27 SHOWN



PART NUMBER ECUO-Y12-XX-XXX-0-1-1-7-2E SHOWN

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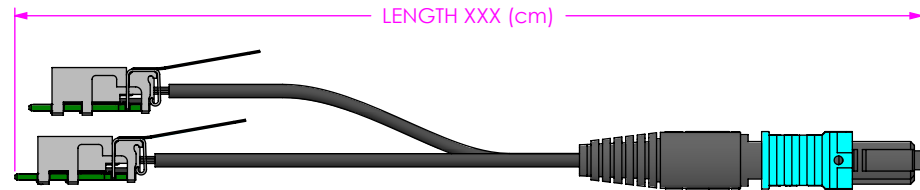
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 e-Mail info@SAMTEC.com code 55322

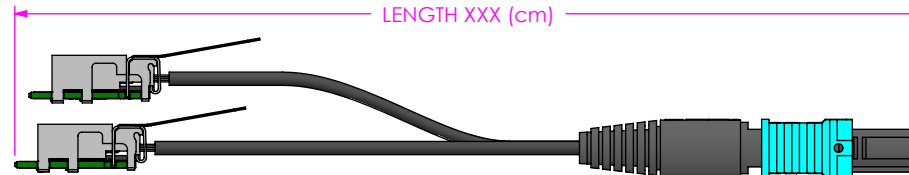
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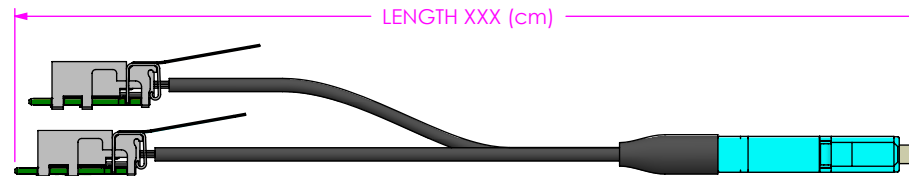
BY: AARON B. 07/21/2020 SHEET 3 OF 10



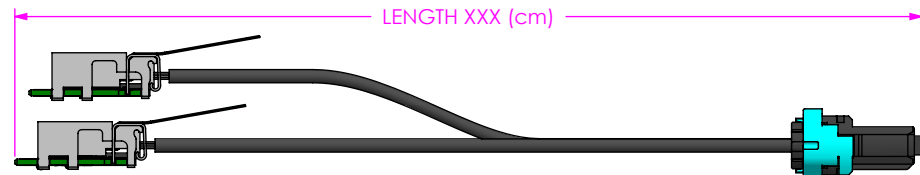
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PART NUMBER ECUO-Y12-XX-XXX-0-1-1-8-22 SHOWN

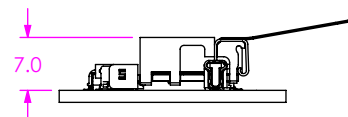
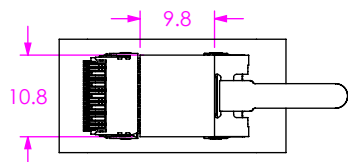
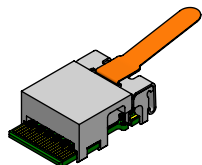


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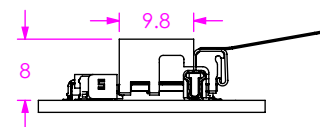
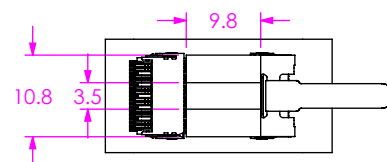
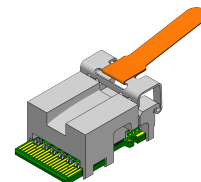


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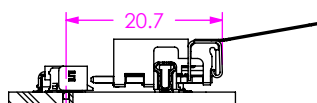
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DO NOT SCALE DRAWING SHEET SCALE: 1:1	DESCRIPTION: OPTICAL FIREFLY ASSEMBLY DWG. NO. ECUO-Y12-XX-XXX-0-X-1-X-XX BY: AARON B. 07/21/2020 SHEET 4 OF 10



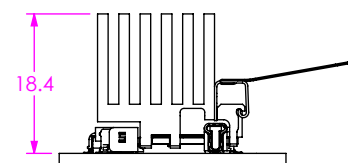
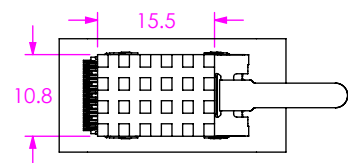
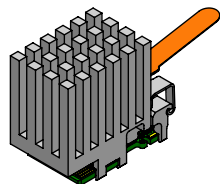
-1 FLAT HEAT SINK



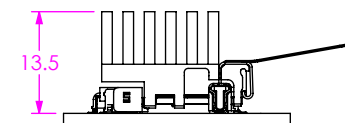
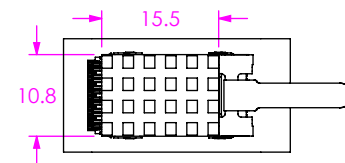
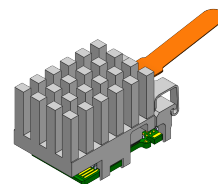
-3 FLAT HEAT SINK WITH PASS THROUGH



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

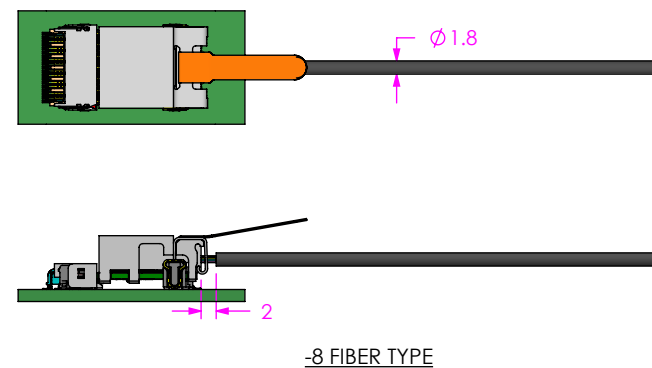
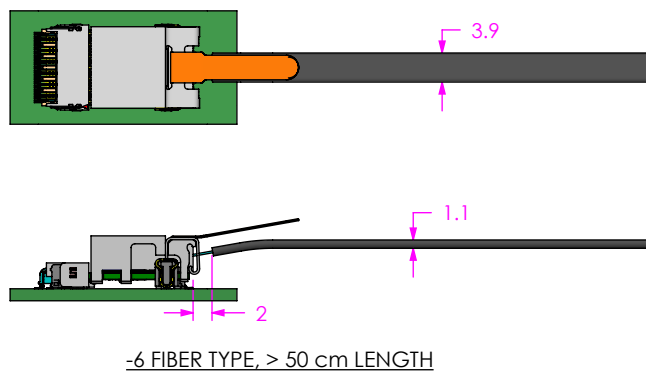
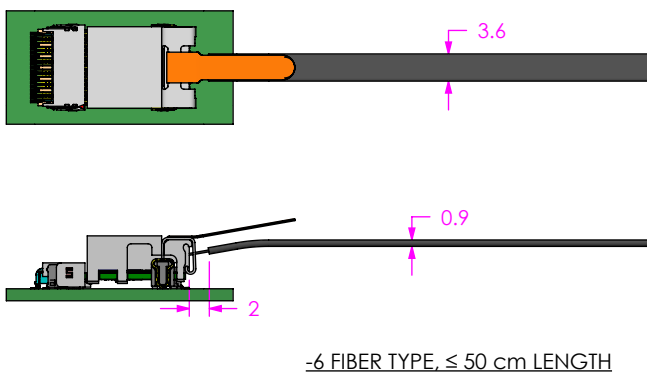
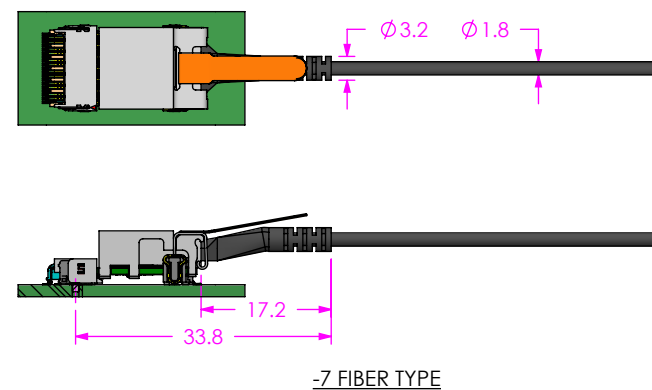
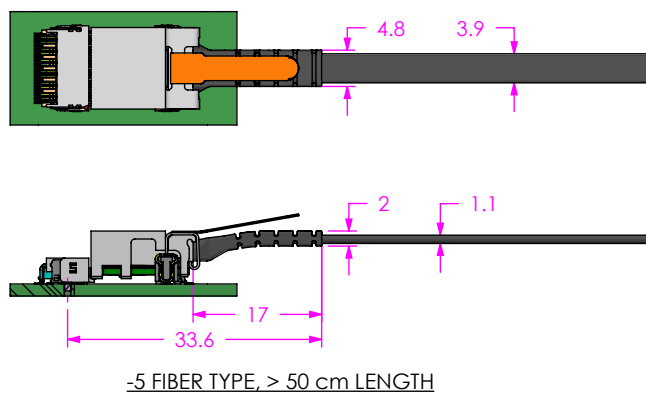
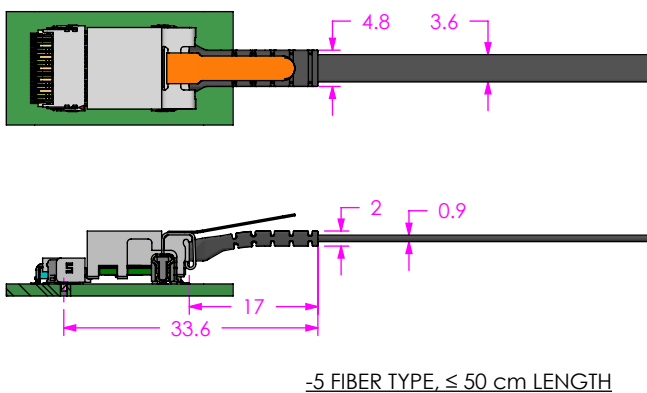
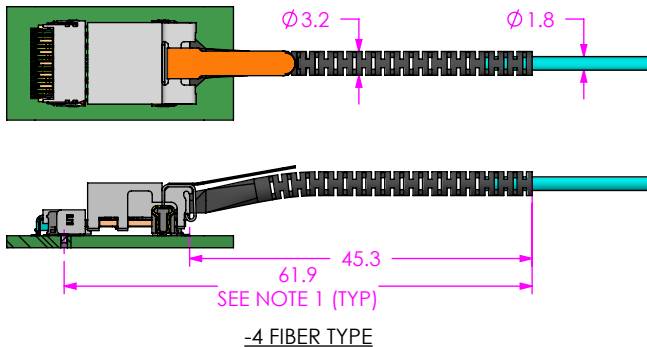
samtec

520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY

DWG. NO.
ECUO-Y12-XX-XXX-0-X-1-X-XX

BY: AARON B. 07/21/2020 SHEET 5 OF 10



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

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SHEET SCALE: 1:1

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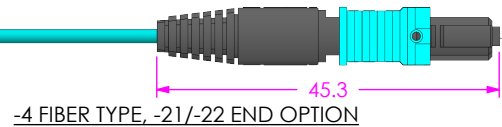
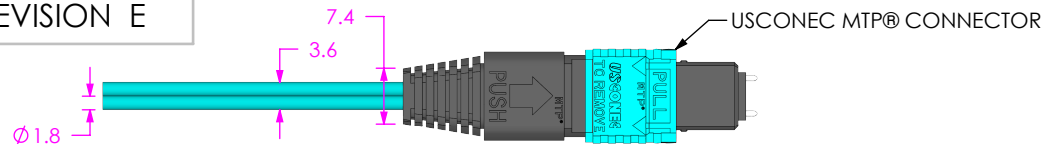
520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail info@SAMTEC.com code 55322

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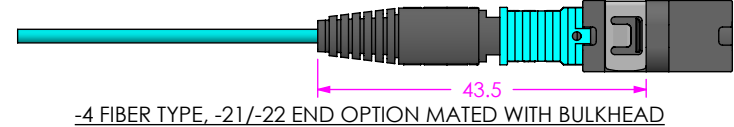
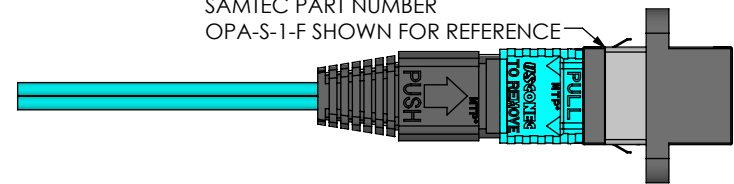
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ECUO-Y12-XX-XXX-0-X-1-X-XX

BY: AARON B. 07/21/2020 SHEET 6 OF 10

REVISION E

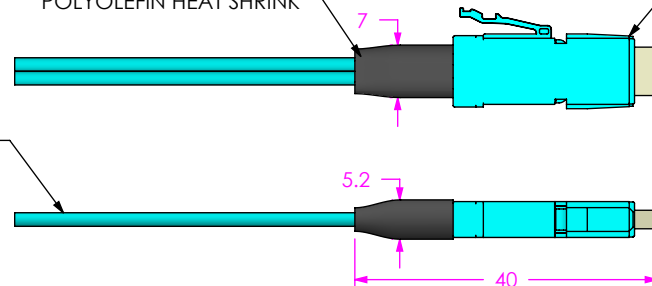


SAMTEC PART NUMBER
OPA-S-1-F SHOWN FOR REFERENCE



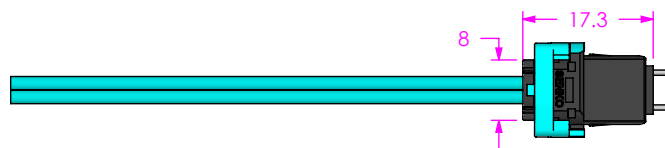
ADHESIVE-LINED
POLYOLEFIN HEAT SHRINK

USCONEC MXC® INTERNAL PLUG CONNECTOR



PVC-BASED AQUA LOOSE TUBE JACKET
RATED OFNG-LS
7.5 mm MIN BEND RADIUS
RATED 0 TO 70 C

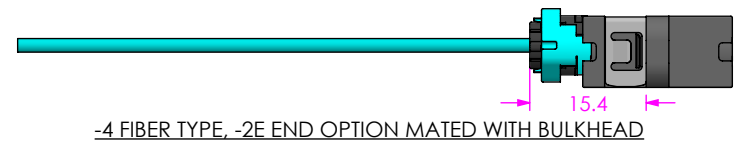
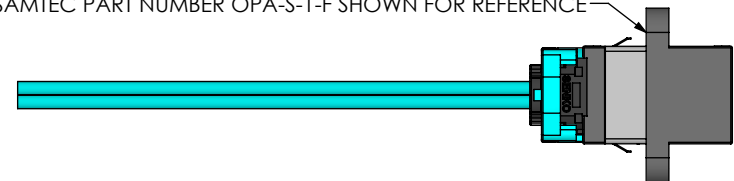
-4 FIBER TYPE, -27 END OPTION



-4 FIBER TYPE, -2E END OPTION

SENKO MPO PLUS®
BAYONET CONNECTOR

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



NOTES:
1. DUST CAPS/PLUGS NOT SHOWN FOR CLARITY

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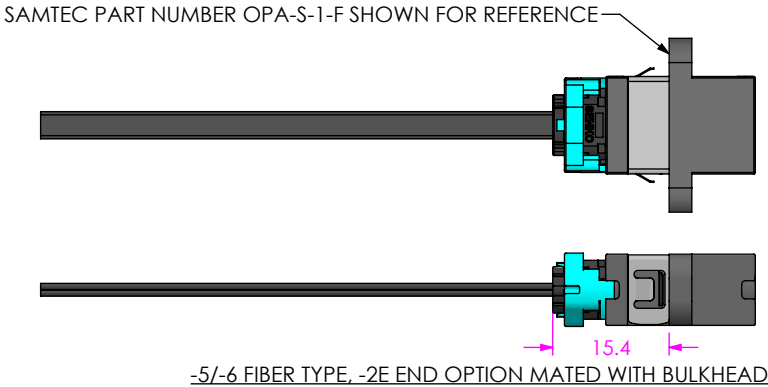
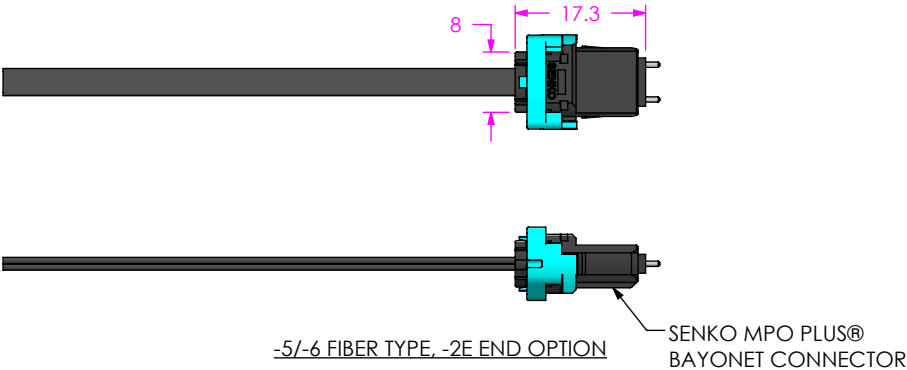
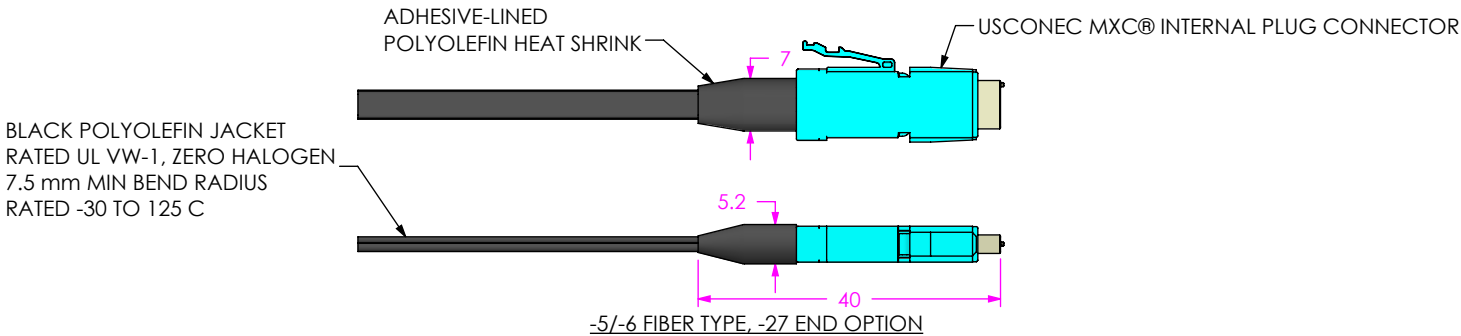
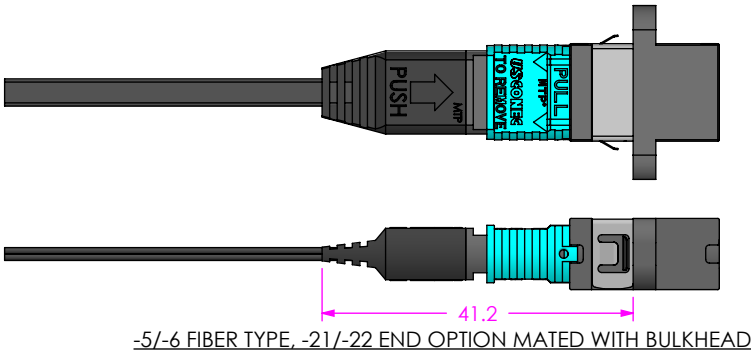
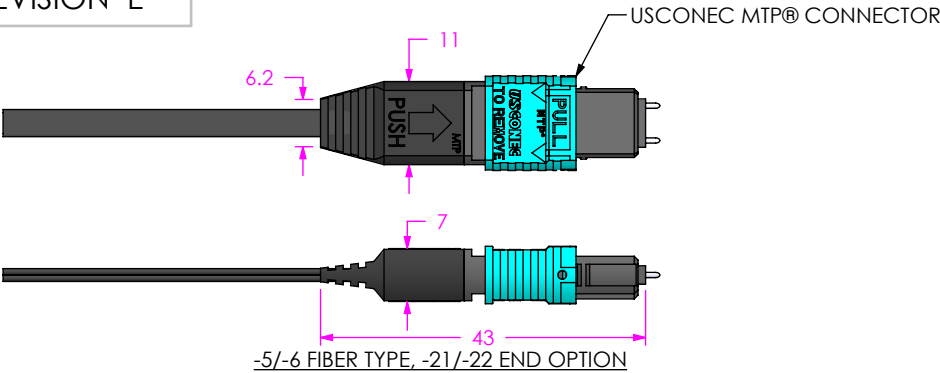
samtec

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PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail info@SAMTEC.com code 55322

DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY

DWG. NO.
ECUO-Y12-XX-XXX-0-X-1-X-XX

BY: AARON B. 07/21/2020 SHEET 7 OF 10



NOTES:
1. DUST CAPS/PLUGS NOT SHOWN FOR CLARITY

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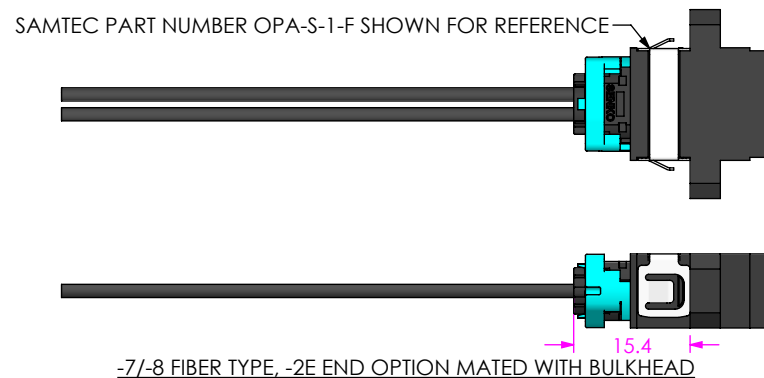
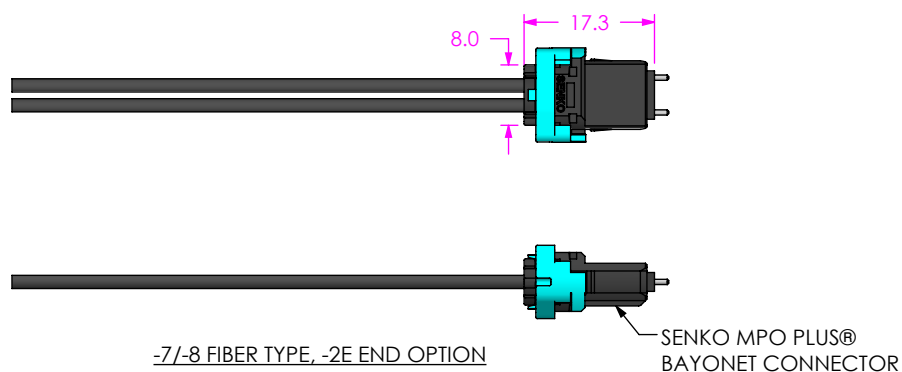
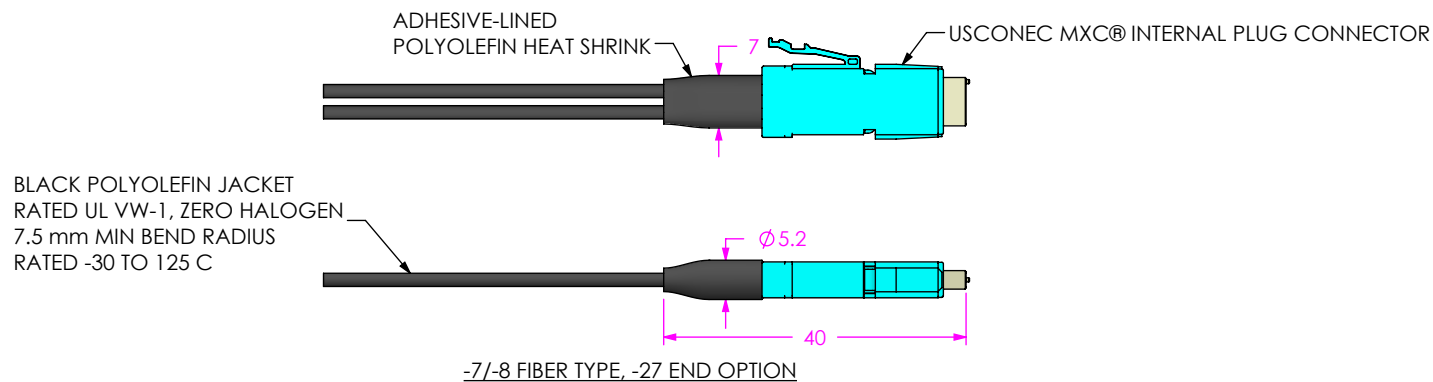
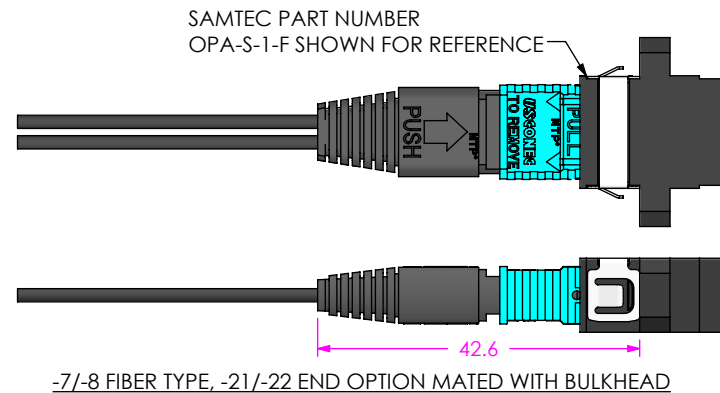
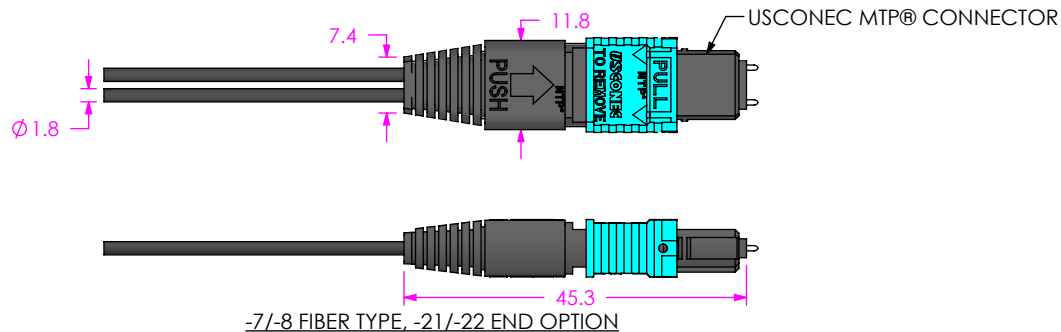
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PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail info@SAMTEC.com code 55322

SHEET SCALE: 1:1

DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY

DWG. NO.
ECUO-Y12-XX-XXX-0-X-1-X-XX

BY: AARON B. 07/21/2020 SHEET 8 OF 10



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DO NOT SCALE DRAWING

SHEET SCALE: 1:1

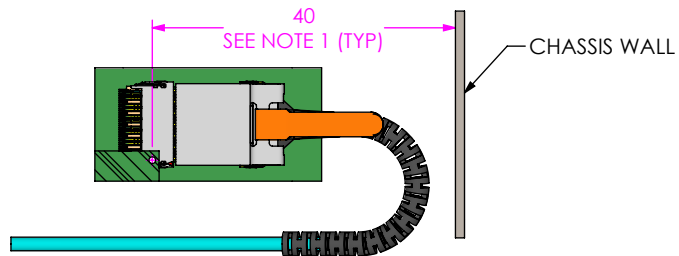
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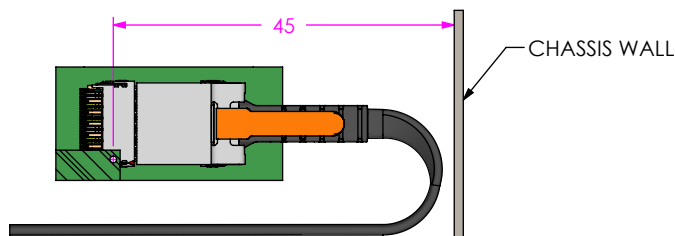
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OPTICAL FIREFLY ASSEMBLY

DWG. NO.
ECUO-Y12-XX-XXX-0-X-1-X-XX

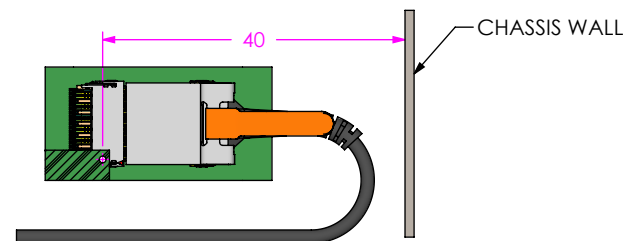
BY: AARON B. 07/21/2020 SHEET 9 OF 10



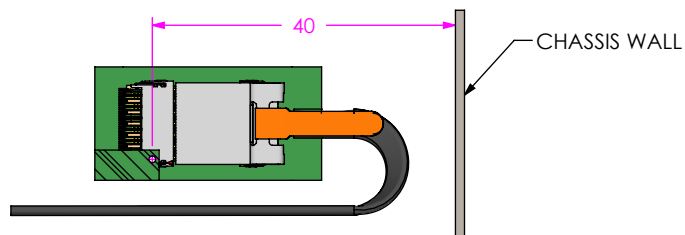
-4 FIBER TYPE RECOMMENDED CABLE ESCAPE CLEARANCE



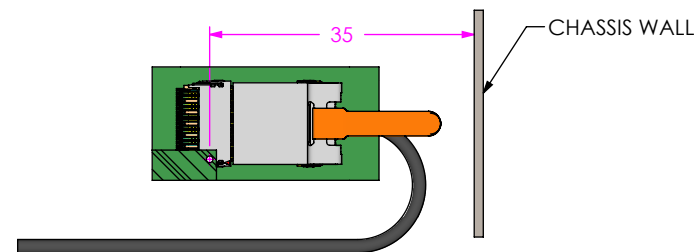
-5 FIBER TYPE RECOMMENDED CABLE ESCAPE CLEARANCE



-7 FIBER TYPE RECOMMENDED CABLE ESCAPE CLEARANCE



-6 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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DO NOT SCALE DRAWING SHEET SCALE: 1:1
INSULATOR:
CONTACT OR TERMINAL:
SHIELD: PHOS BRONZE
PLATING:
CONTACT AREA: .00010 REF GOLD
REMAINDER: .000200 REF TIN

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DESCRIPTION: OPTICAL FIREFLY ASSEMBLY

DWG. NO. ECUO-Y12-XX-XXX-0-X-1-X-XX

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