

 **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	-0E		-1	-2	-3	-4		
-4	15	15	13	11		999	999	999	999		
-5	11	11	10	8		100	100	50	100		
-6	11	11	10	8		100	100	50	100		
-7	14	14	12	10		300	300	300	300		
-8	12	12	10	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

ECUO-X12-XX-XXX-0-X-1-X-XX

TYPE
-T12: x12 TX
-R12: x12 RX

DATA RATE
-14: 14 Gbps
-16: 16.1 Gbps

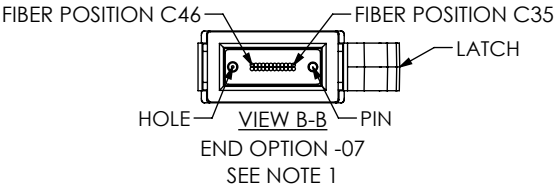
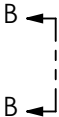
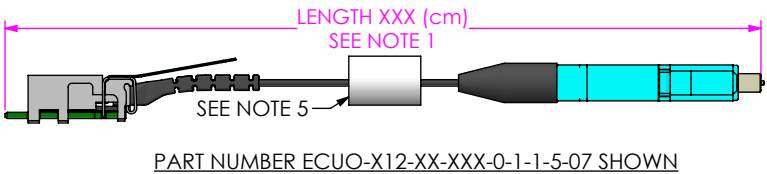
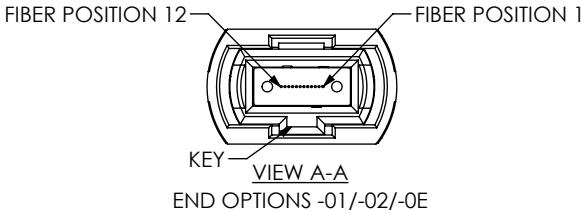
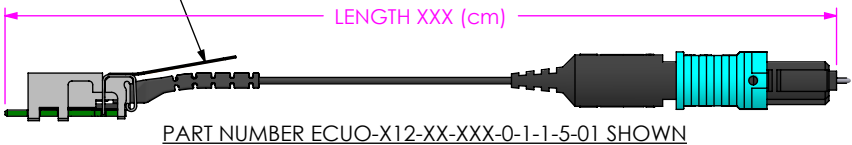
ASSEMBLY LENGTH
-XXX: LENGTH (cm) SEE TABLES 1, 2

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

END OPTION
-01: MTP® MALE
-02: MTP® FEMALE
-07: MXC® INTERNAL PLUG
-0E: 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

ORANGE TAB INDICATES T12
BLUE TAB INDICATES R12



- 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 CONNECTOR 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

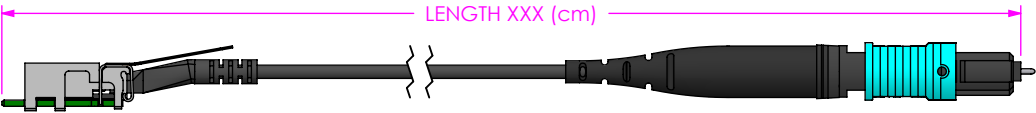
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520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY

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

BY: AARON B. 03/10/2020 SHEET 1 OF 8



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



PART NUMBER ECUO-X12-XX-XXX-0-1-1-8-01 SHOWN



PART NUMBER ECUO-X12-XX-XXX-0-1-1-7-02 SHOWN



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



PART NUMBER ECUO-X12-XX-XXX-0-1-1-7-07 SHOWN



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

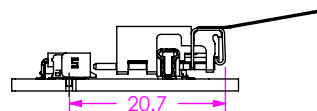
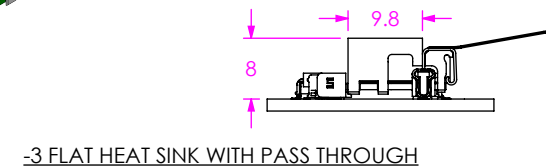
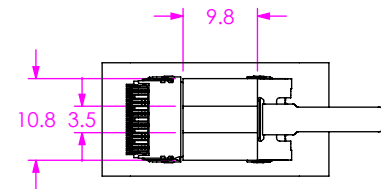
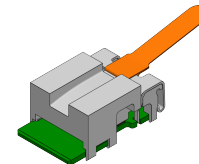
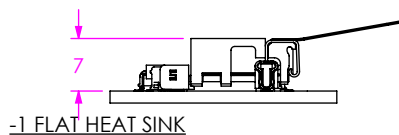
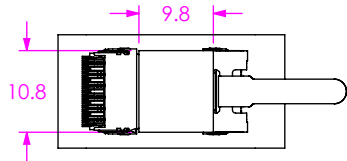
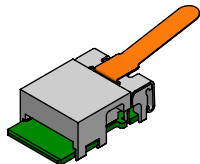


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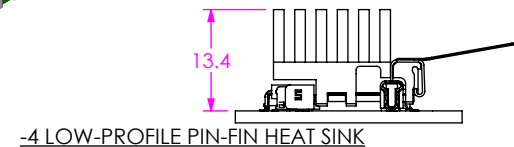
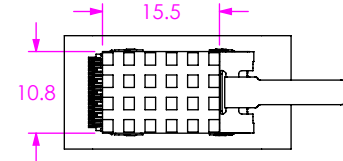
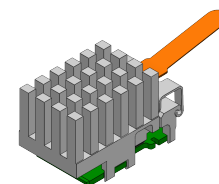
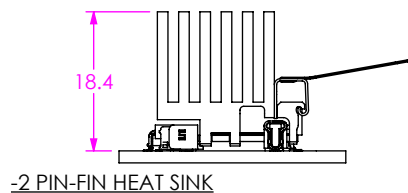
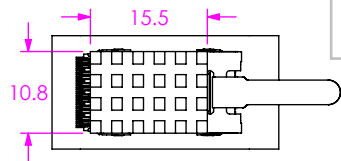
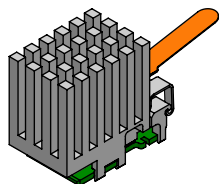


PART NUMBER ECUO-X12-XX-XXX-0-1-1-8-0E SHOWN

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DO NOT SCALE DRAWING	 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-X12-XX-XXX-0-X-1-X-XX
SHEET SCALE: 1:1	BY: AARON B. 03/10/2020 SHEET 2 OF 8



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



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SHEET SCALE: 1:1

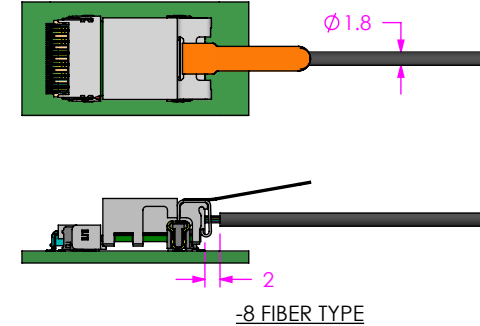
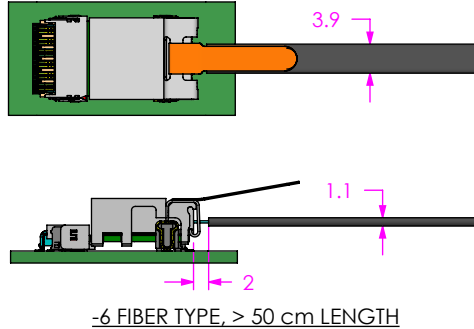
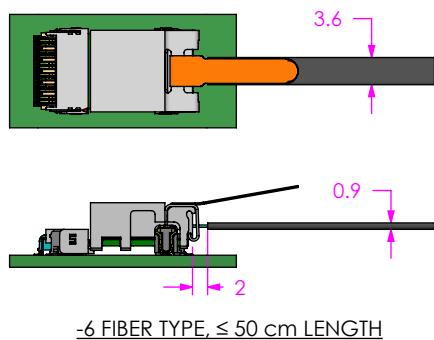
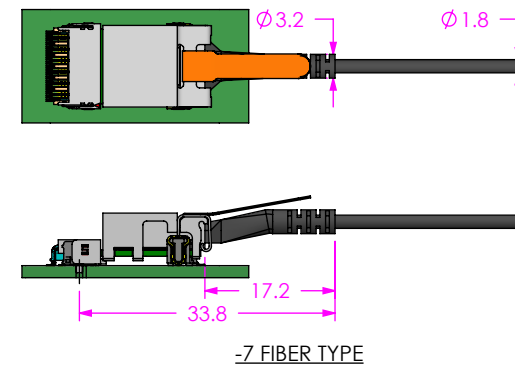
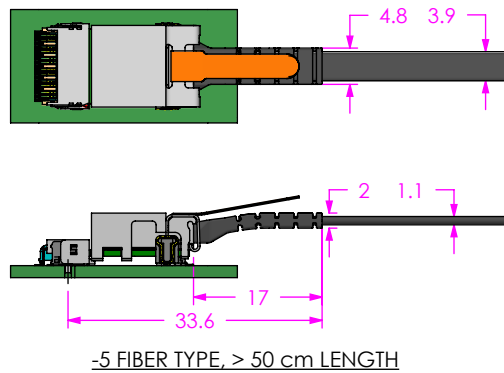
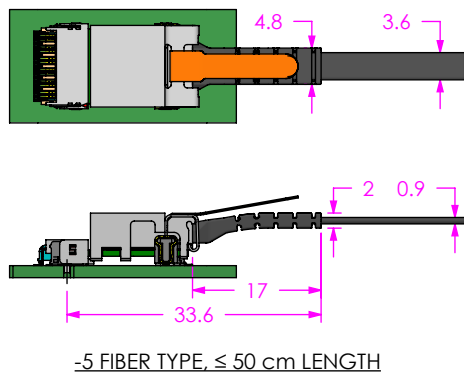
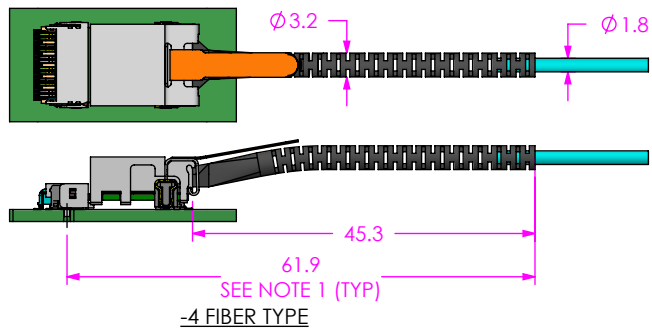
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PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail info@SAMTEC.com code 55322

DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY

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

BY: AARON B. 03/10/2020 SHEET 3 OF 8



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

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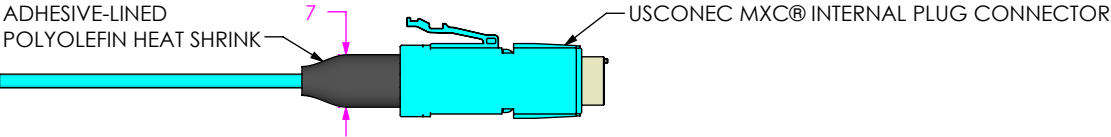
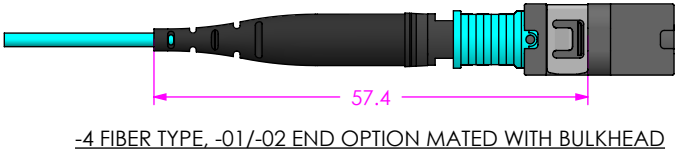
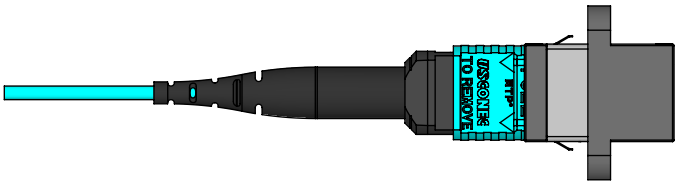
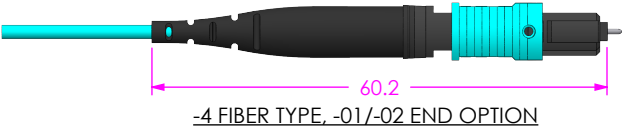
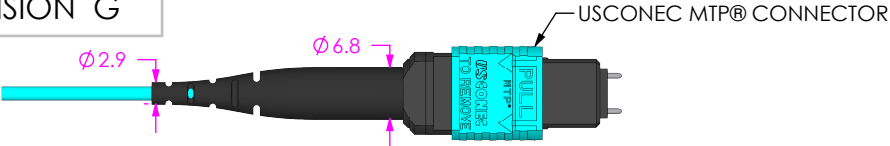
SHEET SCALE: 1:1

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e-Mail info@SAMTEC.com code 55322

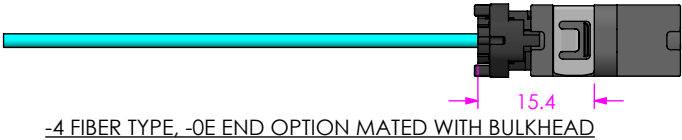
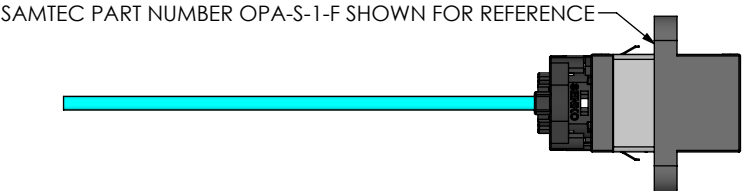
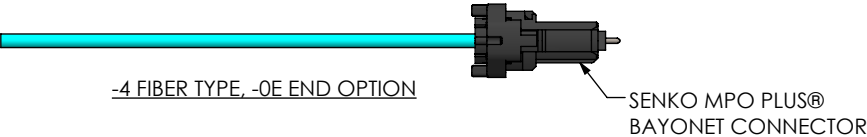
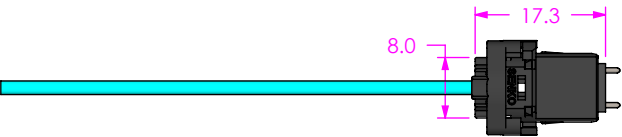
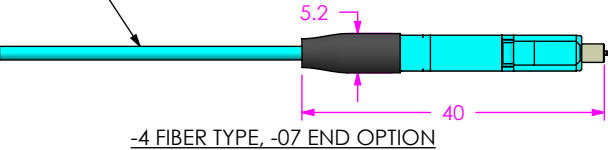
DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY

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

BY: AARON B. 03/10/2020 SHEET 4 OF 8



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



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

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SHEET SCALE: 1:1

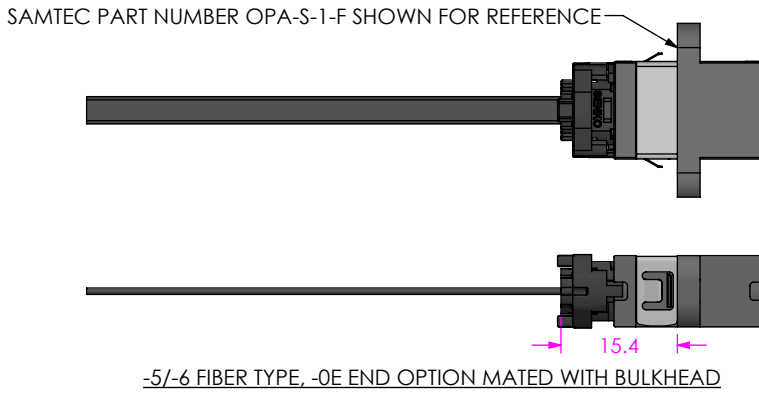
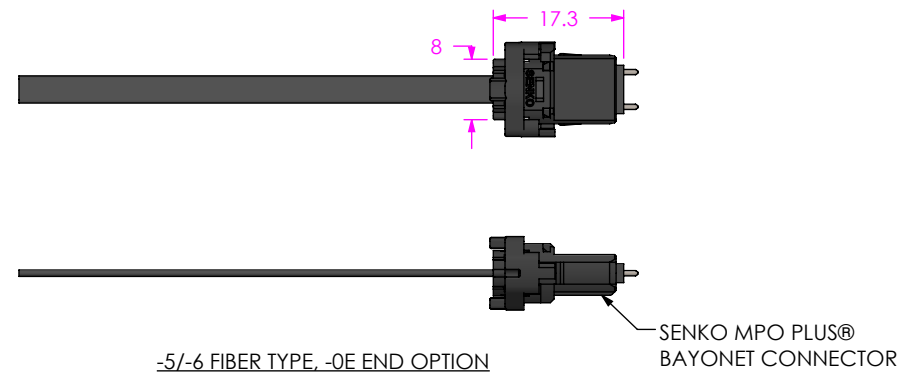
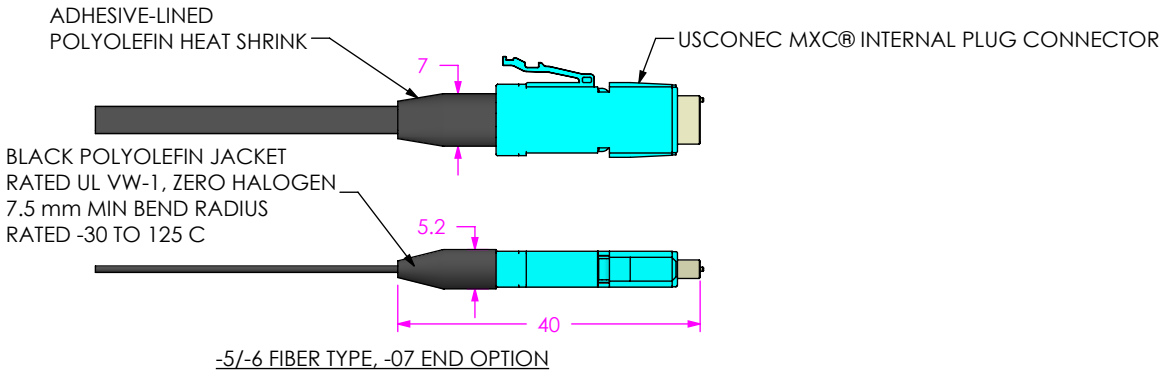
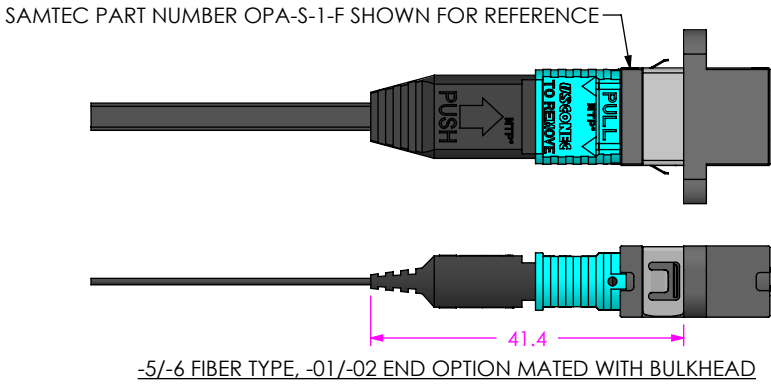
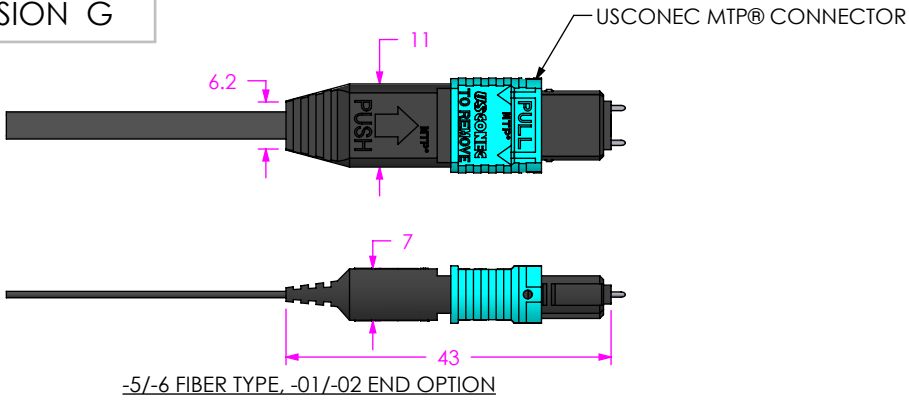
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520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail info@SAMTEC.com code 55322

DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY

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

BY: AARON B. 03/10/2020 SHEET 5 OF 8



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

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SHEET SCALE: 1:1

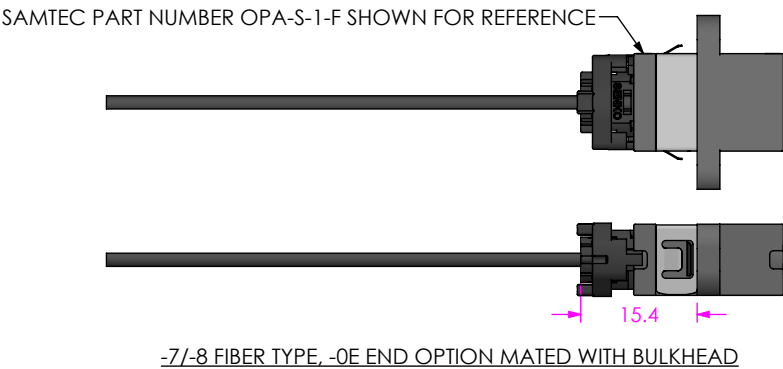
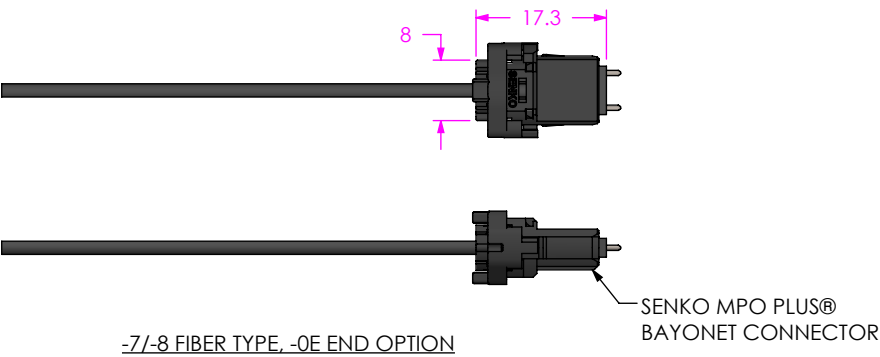
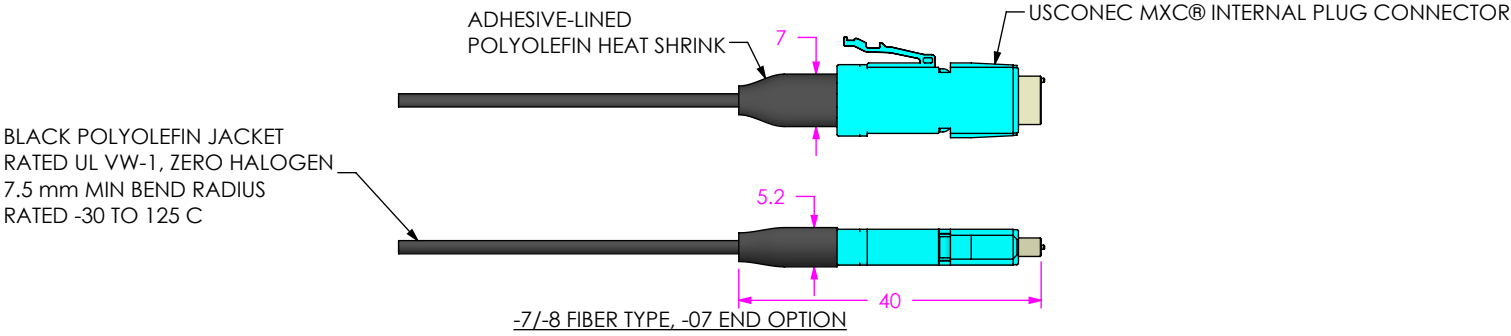
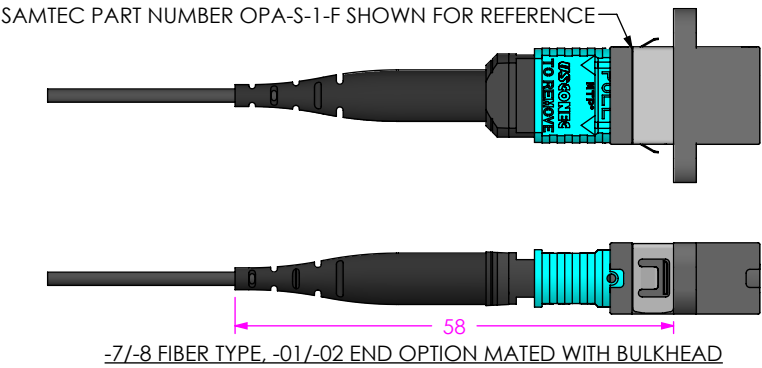
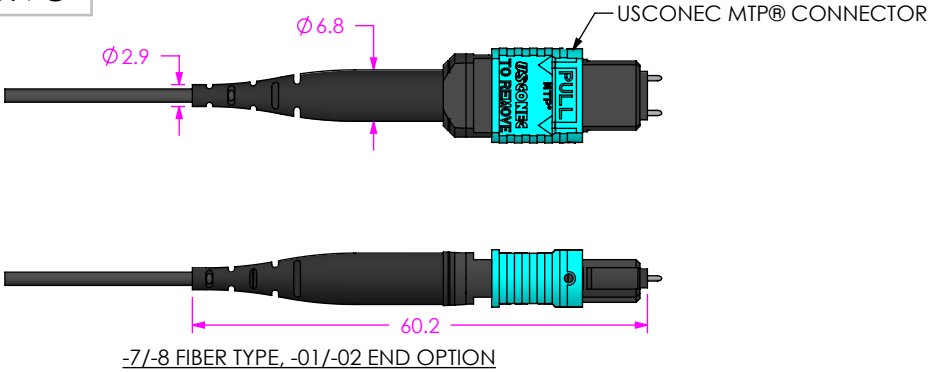
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DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY

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

BY: AARON B. 03/10/2020 SHEET 6 OF 8



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

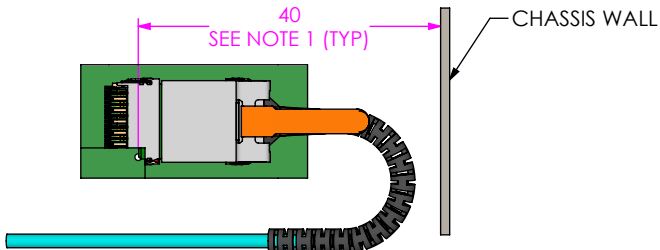
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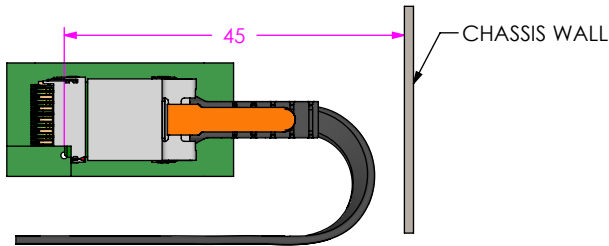
DO NOT SCALE DRAWING

DESCRIPTION:
OPTICAL FIREFLY ASSEMBLY
DWG. NO.
ECUO-X12-XX-XXX-0-X-1-X-XX
BY: AARON B. 03/10/2020 SHEET 7 OF 8

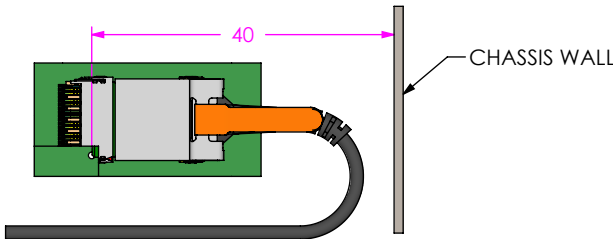
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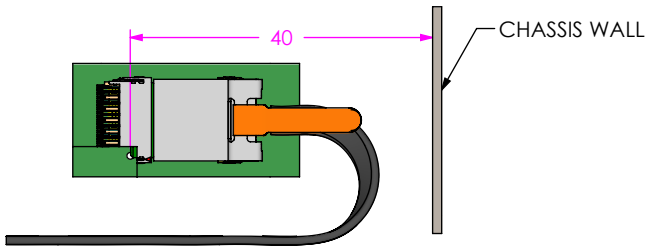
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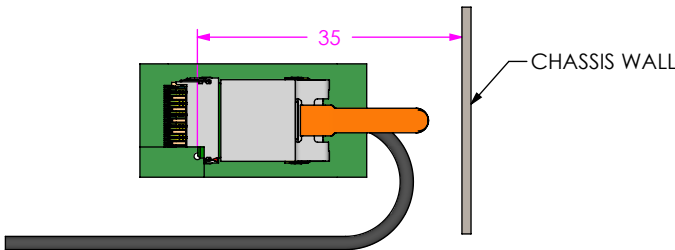
-5 FIBER TYPE RECOMMENDED CABLE ESCAPE CLEARANCE



-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: .000010 REF GOLD REMAINDER: .000200 REF TIN	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-X12-XX-XXX-0-X-1-X-XX BY: AARON B. 03/10/2020 SHEET 8 OF 8