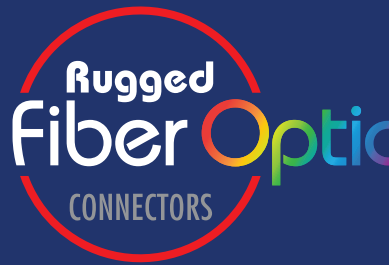
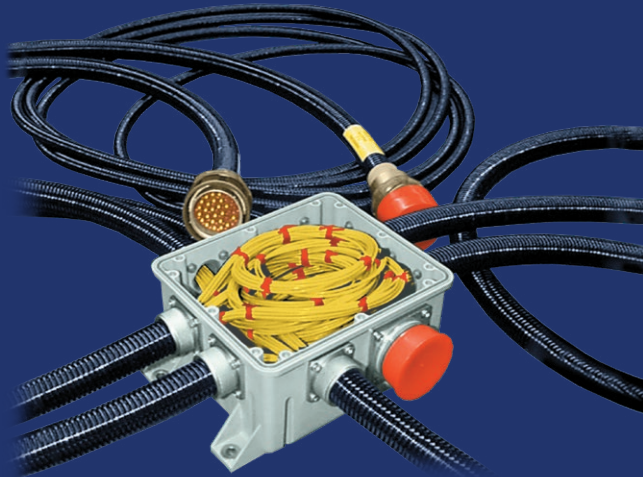


GLENAIR
SIGNATURE
FIBER OPTIC
CONNECTION
SYSTEMS



**Fiber Optic
Junction Boxes:**
complete design
and manufacturing
capability for rugged
metal and lightweight
composite solutions



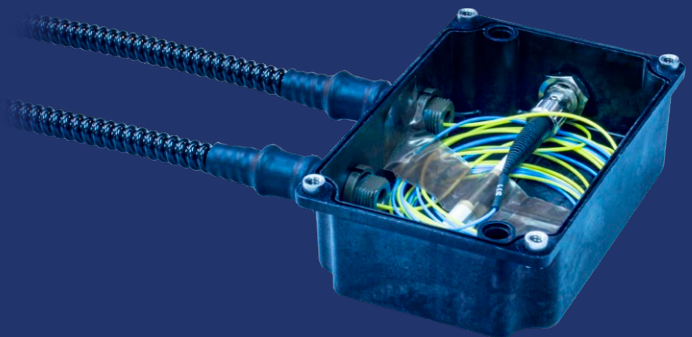
Fiber optic multibranch assembly with flexible conduit wire protection and integrated cable storage bay



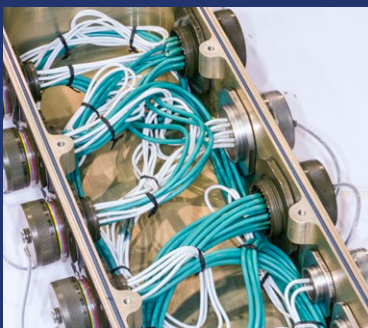
High-speed video fiber optic switch and cable junction box assembly



Hybrid fiber optic / electrical cable junction box with MIL-DTL-38999 Series III type connector interfaces



Weight-saving composite junction box with integrated fiber media service loop



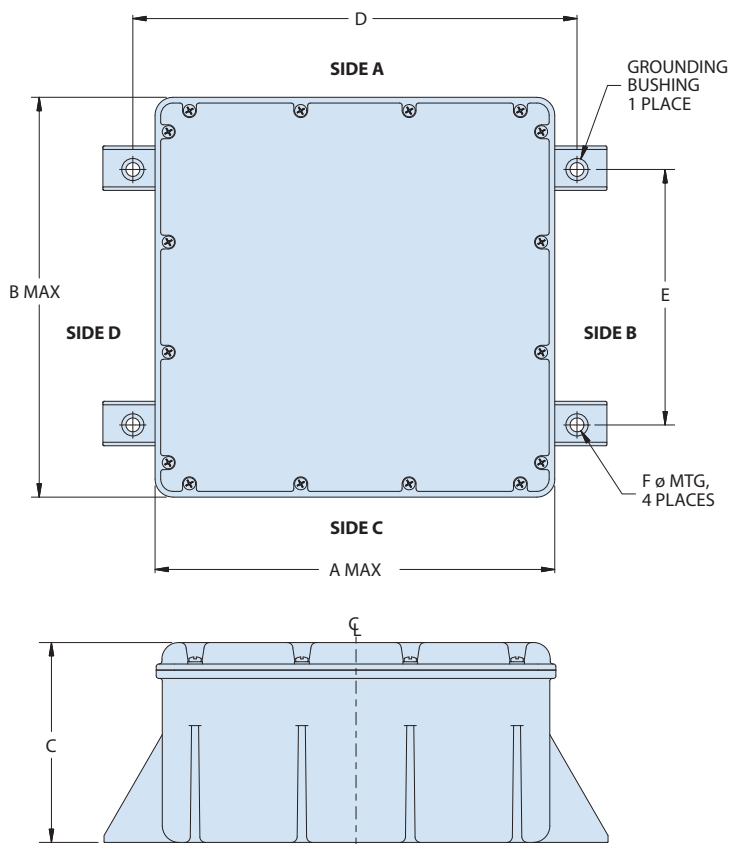
Glenair manufactures and supplies fiber optic junction boxes incorporating backshells, fiber media protection conduit, and electrical and optical connectors in both catalog and Mil-Spec variants. The offering includes turnkey fiber media routing and termination with Glenair signature connectors and termini, supporting high-speed communication system integration for both fiber optic and hybrid optical/electrical architectures.

147-012 Composite Enclosure Assembly

HOW TO ORDER				
Sample Part Number	147-012	XMS	40	00
Series	147-012= Composite Enclosure Assembly			
Material/Finish	XM = Electroless Nickel XO = No Plating, Black Color XZN = Zink Nickel, Color Black XMS = Electroless Nickel, Internal No Plating External			
Junction Box Size	30 = Large Junction Box 40 = Low Profile Medium Box			
Internal Component Option	00 = Basic Box With Base Plate 687-305-* 01 = Basic Box With Base Plate Terminal Blocks & Adapters 02, 03, 04 = Basic Box With Base Plate Terminal Blocks & Adapters			

NOTES

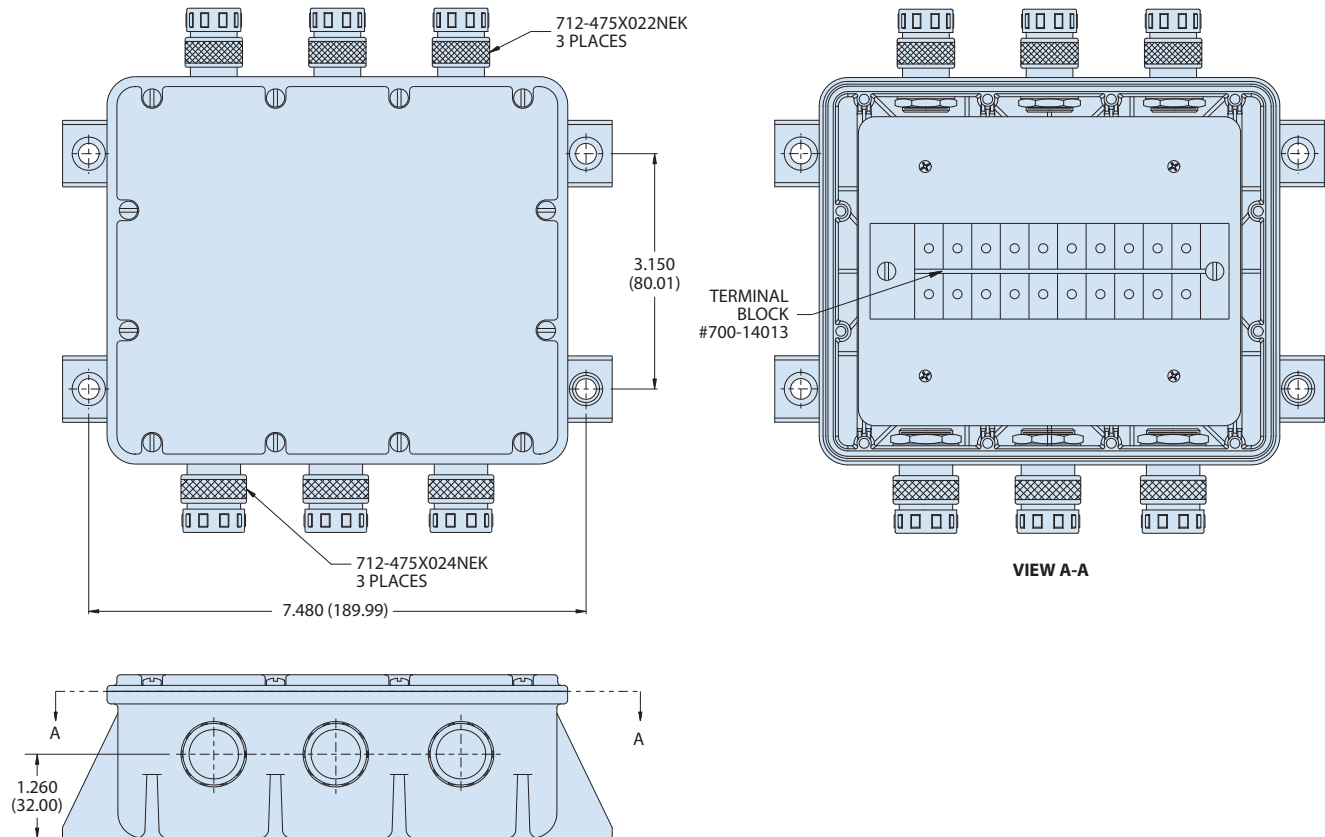
- Assembly identified with manufacturer's name, P/N. Space permitting.
- Connectors terminated with MIL-W-16878 type E gage wire and lugs



FIBER OPTICS

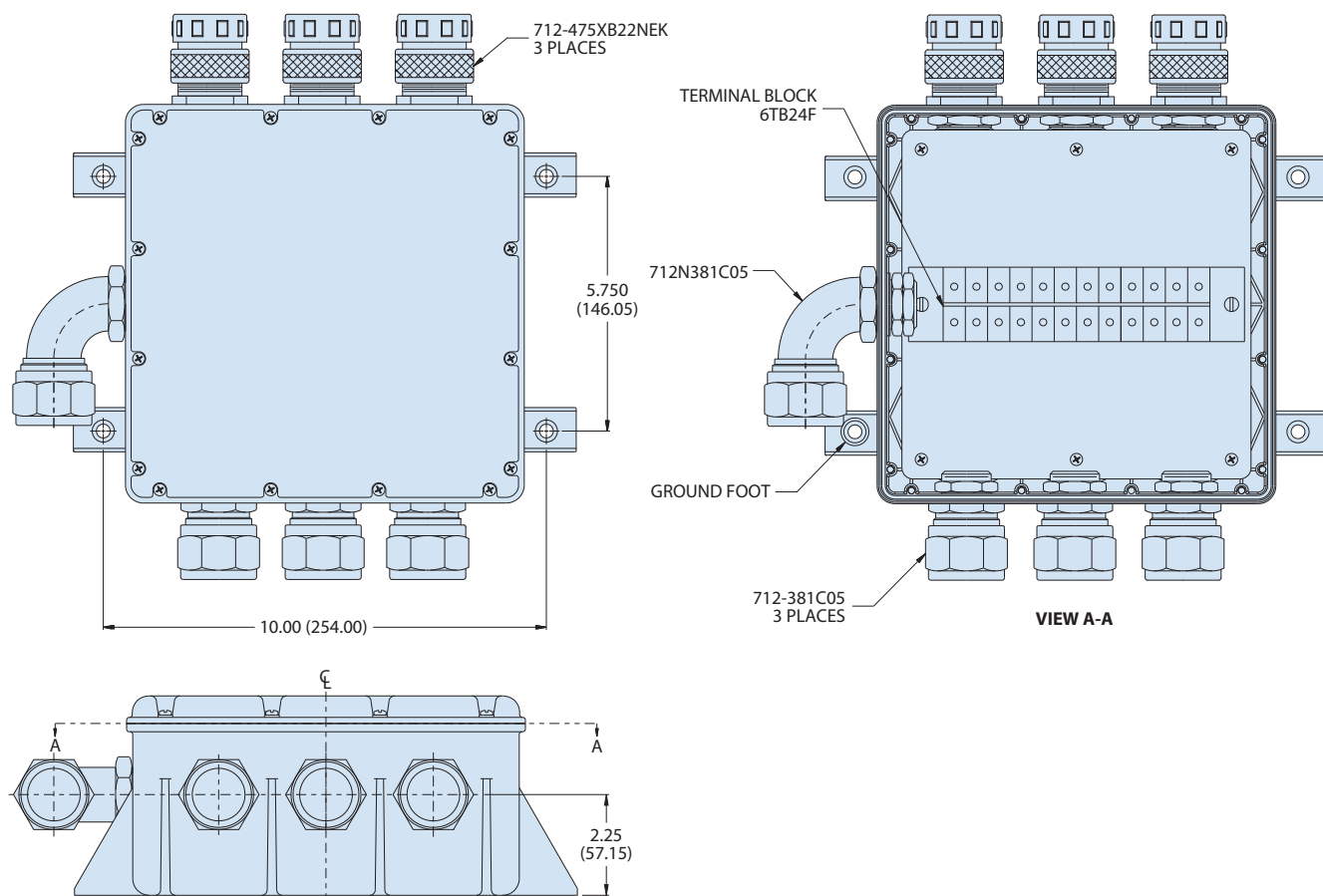
Junction Box Capability

147-012 Composite Enclosure Assembly



DASH #4001 CONFIGURATION (LOW PROFILE BOX)						
Dash No.	A	B	C	D	E	F
4001	6.93 (176.0)	5.83 (148.1)	2.44 (62.0)	7.48 (190.0)	3.45 (89.9)	.312 (7.92)

147-012 Composite Enclosure Assembly



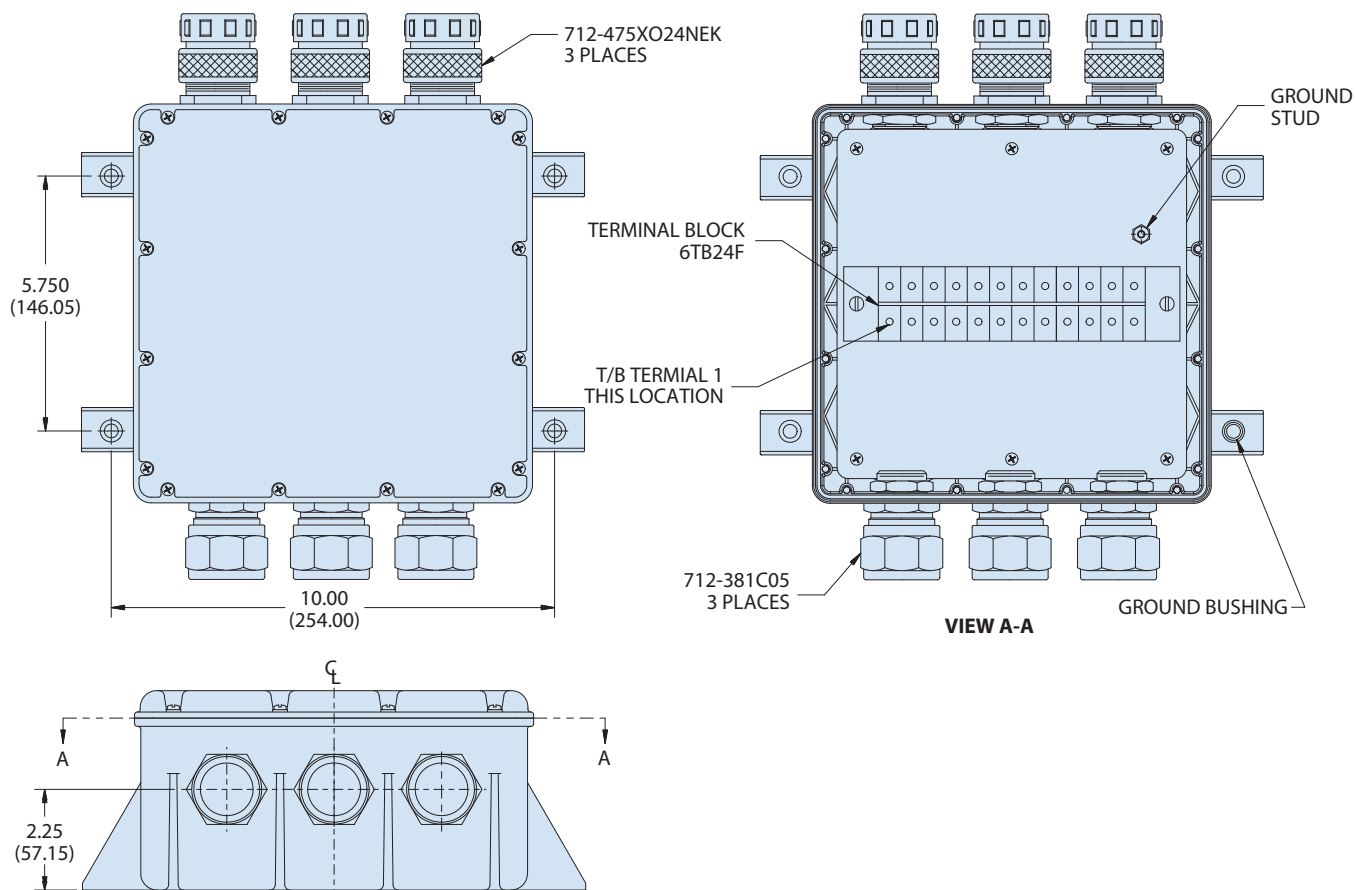
DASH #3001A CONFIGURATION (LARGE JUNCTION BOX)

Dash No.	A	B	C	D	E	F
3001A	9.100 (231.1)	9.100 (231.1)	4.500 (114.3)	10.00 (254.0)	5.750 (146.1)	.312 (7.92)

FIBER OPTICS

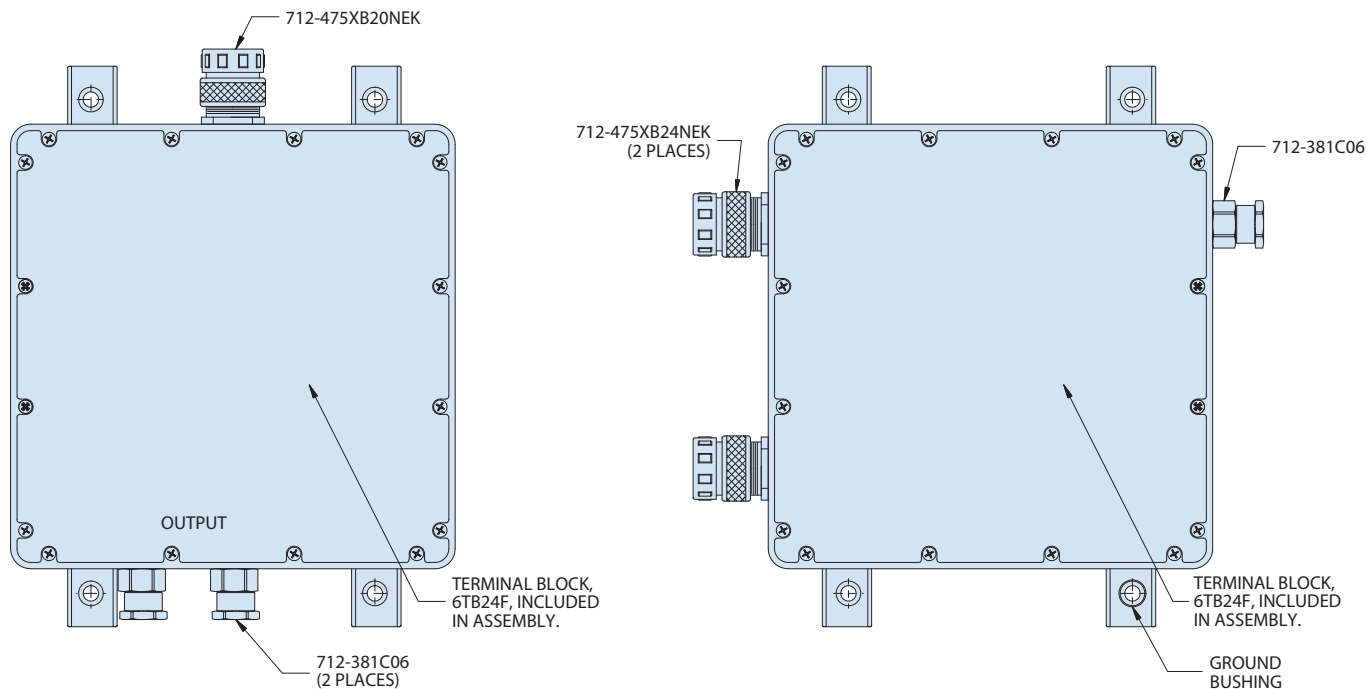
Junction Box Capability

147-012 Composite Enclosure Assembly



DASH #3002 CONFIGURATION (LARGE JUNCTION BOX)						
Dash No.	A	B	C	D	E	F
3002	9.100 (231.1)	9.100 (231.1)	4.500 (114.3)	10.00 (254.0)	5.750 (146.1)	.312 (7.92)

147-012 Composite Enclosure Assembly



DASH #3004 CONFIGURATION (LARGE JUNCTION BOX)						
Dash No.	A	B	C	D	E	F
3004	9.100 (231.1)	9.100 (231.1)	4.500 (114.3)	10.00 (254.0)	5.750 (146.1)	.312 (7.92)

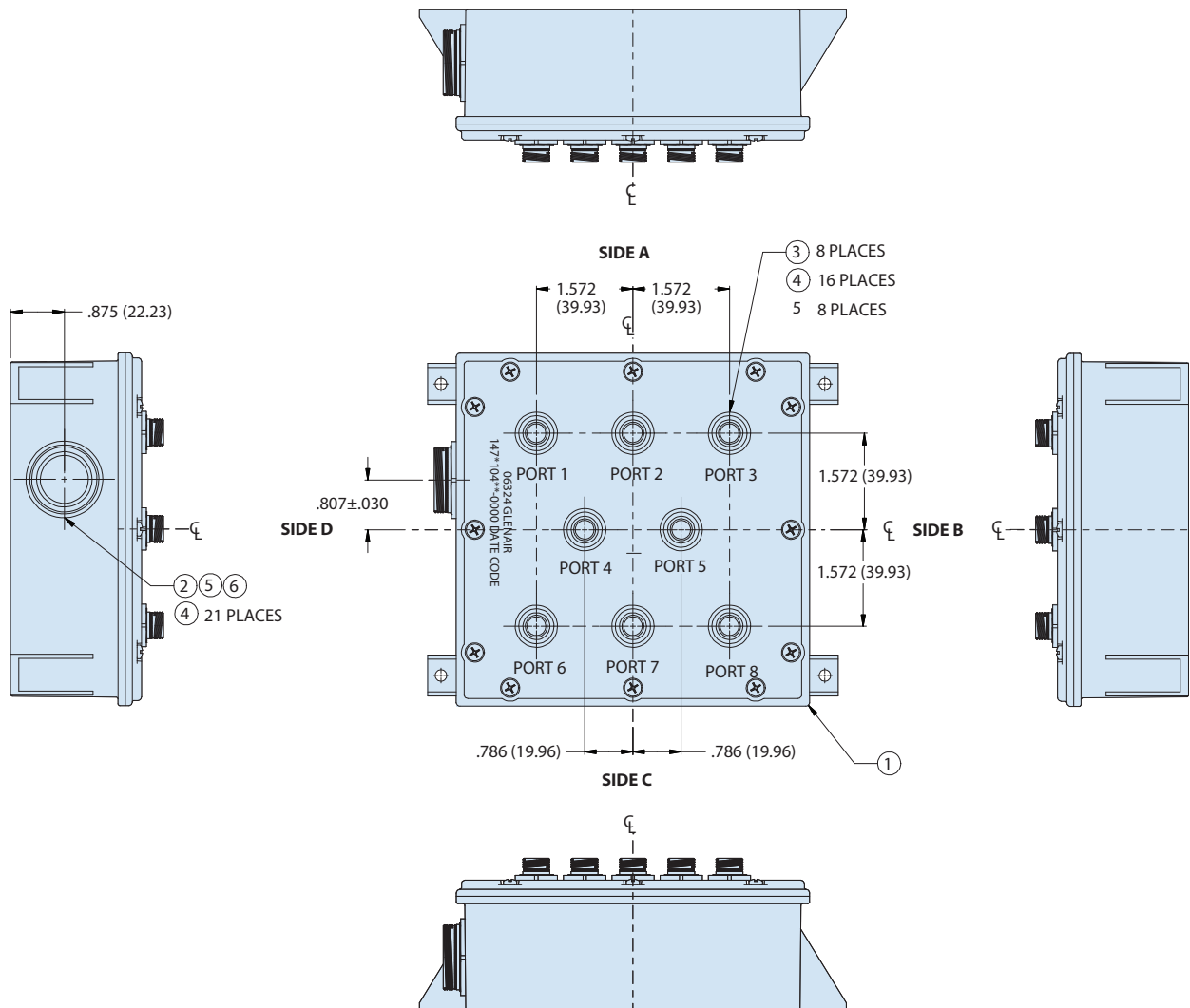
DASH #3003 CONFIGURATION (LARGE JUNCTION BOX)						
Dash No.	A	B	C	D	E	F
3003	9.100 (231.1)	9.100 (231.1)	4.500 (114.3)	10.00 (254.0)	5.750 (146.1)	.312 (7.92)

FIBER OPTICS

Junction Box Capability

147-104-000 EMI/Environmental Composite Enclosure

PARTS LIST			
Item	Qty	Part Number	Description
1	1	140-104XM-0005	Junction Box Assembly
2	1	801-009-07M17-85SA	Connector Receptacle
3	8	801-009-07M7-10SA	Connector Receptacle
4	37	809-155	Sealing Plug
5	9	600-057	Micro-Band
6	A/R	GPS44-1	Cable, 4 Twisted Pair, 24 Awg



FA03246 3 Port Pass-Thru Block Fiber Optic Cable Assembly

NOTES

- **Optical performance:** insertion loss shall be <1.5db when measured @ 1310nm wavelength.
- Connect per connection diagram.

PARTS LIST

Qty	Part Number	Description	Item
A/R	PR1547, Black	Molding Compound	10
1	770-010Y306	Shrink Boot	9
A/R	120-100-1-1-16BK	Convuluted Tubing	8
2	770-005S102	Shrink Boot	7
A/R	SMF-28e+	F/O Cable, 9/125	6
3	TBD	Washer	5
3	G63365-15CMT	Backshell, Glenair	4
32	181-058	Terminus, Dummy	3
16	181-056-1255C	Terminus, Genderless	2
3	180-122MTH7-15-16N	Connector, Recp, Glenair	1

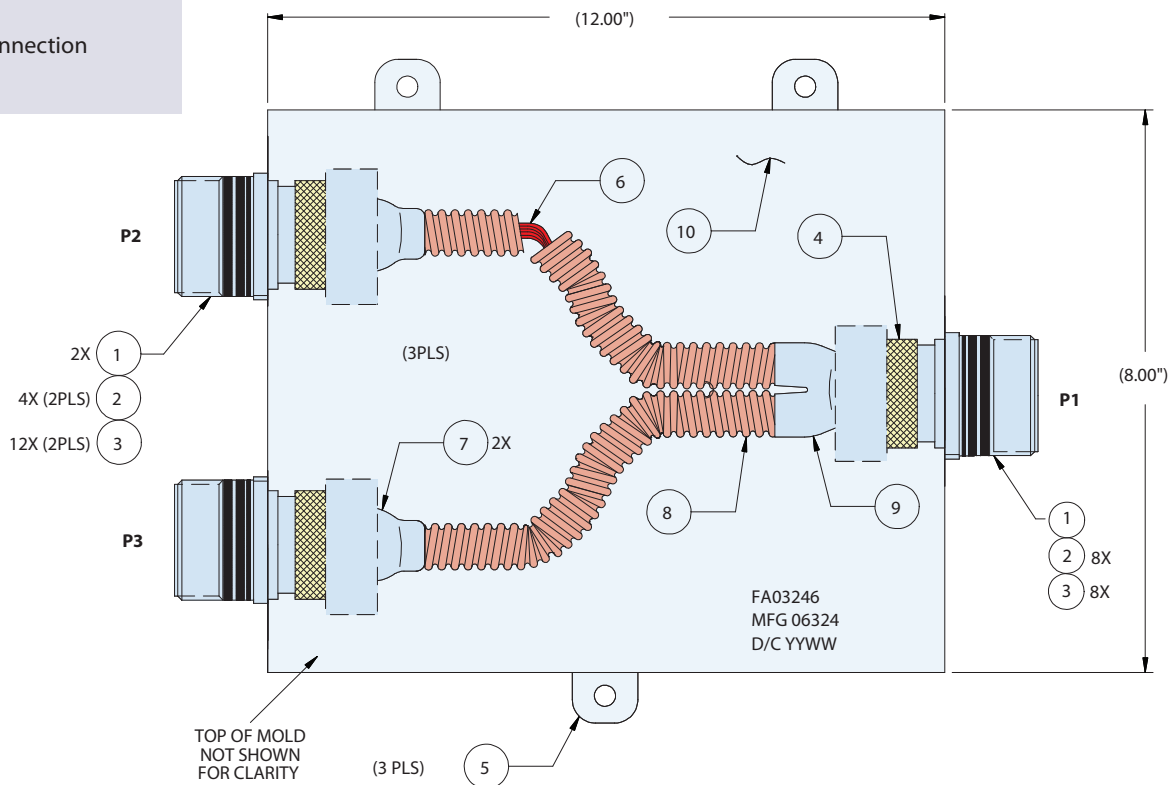


TABLE I

P1 Port	To Controller
P2 Port	To Lighttower
P3 Port	To Lighttower

FIBER OPTICS

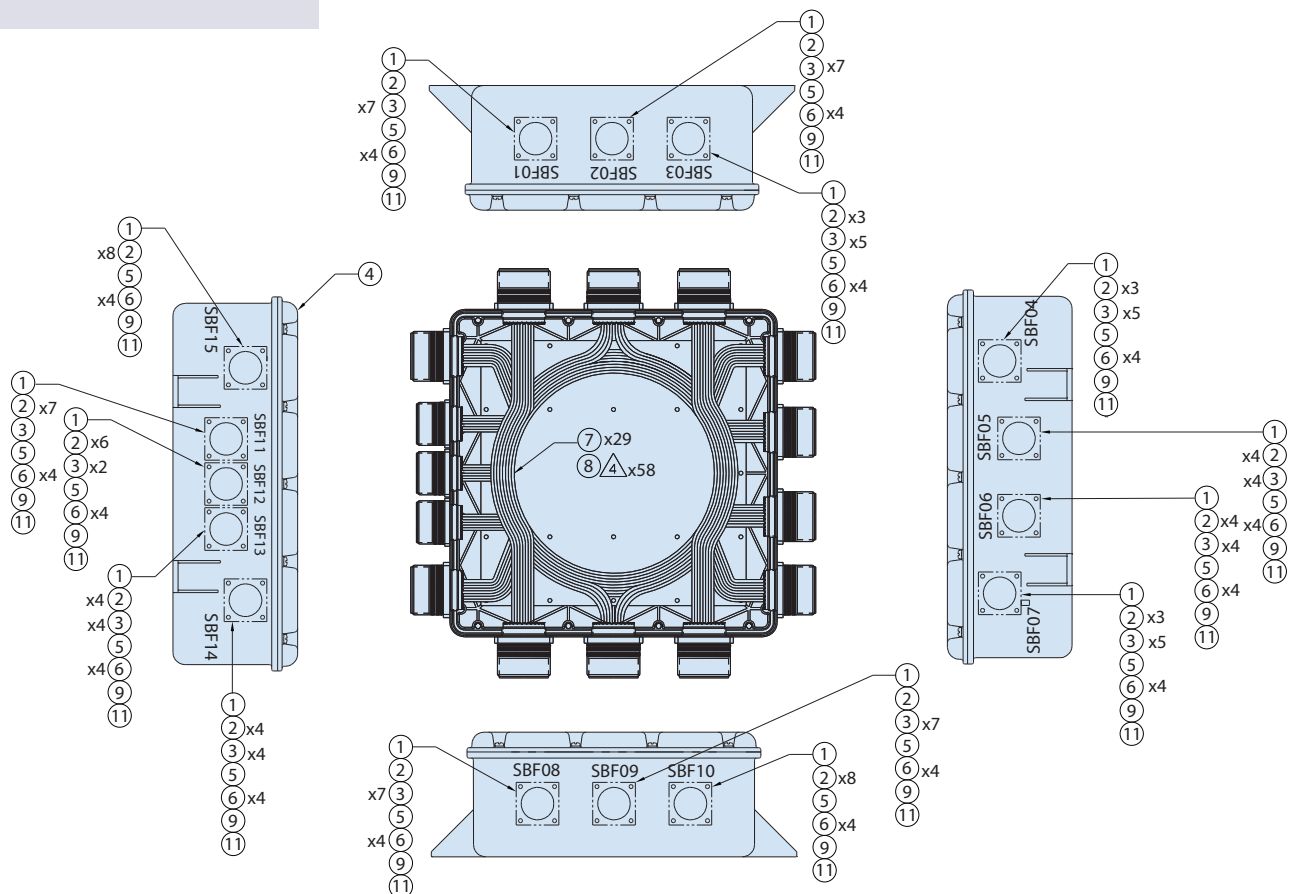
Junction Box Capability

FA10910 Receptacle to Receptacle

NOTES

- **Optical performance:**
insertion loss shall be <1.5db
when measured @ 1310nm
wavelength.
- Connect per connection
diagram.

PARTS LIST			
Qty	Part Number	Description	Item
15	930-001F08	Gasket	9
A/R	M23053/5-XX-0	Shrink Tubing, Black, Size A/R	8
A/R	AE001VSLA5KM	F/O Cable, 9/125un	7
60	MS16995-11	Screws	6
15	M85049/95-18A	Mounting Flange	5
1	140G107XO-0016	Junction Box	4
62	181-048-16	Dummy Terminus, Glenair	3
58	181-001-126S	Terminus, Socket, Glenair	2
15	180-091Z1H7-17-8SN	Connector, Recep, Glenair	1



FO01903 Cable Connection Unit

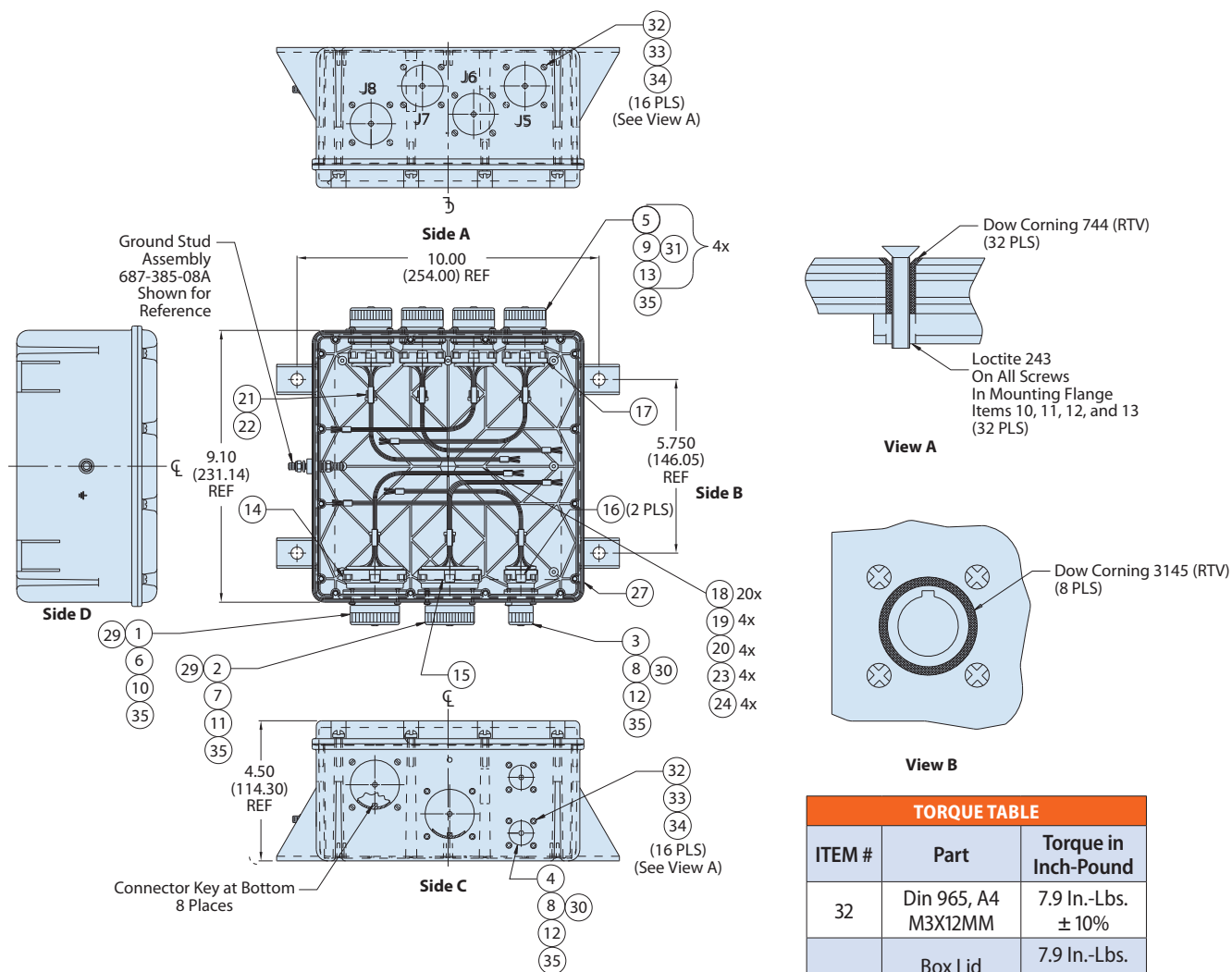
NOTES

- Mark all reference designators as shown on Side A, Side C, and Side D.
- Mark Side B of the box as shown below:
FO01903 REV. (X)
Cage Code 18863
N (XXXX)
- Optical and electrical performance and final inspection: All testing and final inspection shall be performed per AQS-A013-F.
- Unless otherwise specified, all electrical wires are 20 AWG.
Note: J3 and J4 connector will require the wires to be spliced down to a #22.
- Bonding resistance between the ground stud and plating shall not exceed 4.3 milliohms when measured per acceptance test plan AQS-A013-F. Bonding resistance between any connector housing and plating shall not exceed 7.5 milliohms when measured per acceptance test plan AQS-A013-F. No changes shall be made without KDA approval via form BLA-6167.

PARTS LIST			
Qty	Part Number	Description	Item
1	S-3902 or Equivalent	Silica Gel Packet	37
1	S-3949 or Equivalent	ESD Bag	36
A/R	RTV 3145	Sealant	35
A/R	Loctite 243	Thread Sealer	34
A/R	RTV 744 or Dowsil 3145	Sealant	33
32	2709103012 or Equivalent	Din 965, A4, M3X12MM	32
4	930-001B11	Gasket, #21, Conductive	31
2	930-001B04	Gasket, #11, Conductive	30
2	930-001B14	Gasket, #25, Conductive	29
x	Deleted	Deleted	28
1	140G103XMS-0038	Box, Composite	27
x	Deleted	Deleted	26
x	Deleted	Deleted	25
4	FA07856	Subassembly	24
4	FA07849	Subassembly	23
A/R	602-1R, (M46852 TYII)	Silicon Tape, .XXX" x 1.0"	22
8	ACS1	Qwik TY Pad	21
4	FA07848	Subassembly	20
4	FA07847	Subassembly	19
20	FA07846	Subassembly	18
4	450HS030XW21	Strain Relief, J5-J8	17
2	450HS030XW11	Strain Relief, J3-J4	16
1	450HS030XW25	Strain Relief, J2	15
1	450HS030XW25	Strain Relief, J1	14
4	FSM1-210106 (Alt: 487-00922AEAP)	Mounting Flange, J5-J8	13
2	FSM1-110106 (Alt: 487-00912AEAP)	Mounting Flange, J3-J4	12
1	FSM1-250106 (Alt: 487-00925AEAP)	Mounting Flange, J2	11
1	FSM1-250106 (Alt: 487-00925AEAP)	Mounting Flange, J1	10
4	660-050XW21N	Protective Cover, J5-J8	9
2	660-050XO11N	Protective Cover, J3-J4	8
1	660-050XO25N	Protective Cover, J2	7
1	660-050XW25N	Protective Cover, J1	6
4	180-060XWH7-21-16SN	Connector, Recpt. J5-J8	5
1	JVS00A1135SN (Alt: 233-205-00AB11-35SN)	Connector, Recpt. J4	4
1	JVS00A1135PN (Alt: 233-205-00AB11-35PN)	Connector, Recpt. J3	3
1	JVS00A2524PN (Alt: 233-205-00AB25-24PN)	Connector, Recpt. J2	2
1	180-060XWH7-25-29PN	Connector, Recpt. J1	1

FIBER OPTICS Junction Box Capability

F001903 Cable Connection Unit



TORQUE TABLE

ITEM #	Part	Torque in Inch-Pound
32	Din 965, A4 M3X12MM	7.9 In.-Lbs. $\pm 10\%$
	Box Lid	7.9 In.-Lbs. $\pm 10\%$
	Ground Stud	200 In.-Lbs. $\pm 10\%$