

Flexible Fiber Management Solutions

Fiber Optic Splice Closure 2178 Family

More flexibility for your complex fiber optic network.

A full line of closures and accessories designed to protect fiber optic facilities. The Fiber Optic Splice Closure 2178 family has earned its reputation for reliable protection of fiber optic facilities. Now, the 2178 family includes many models and configurations for more flexibility to help meet the complex needs of today's fiber optic networks.

Growing technologies require growing solutions.

You want to build reliable FTTP networks faster and cheaper. The expanded Fiber Optic Splice Closure 2178 family can help you meet these needs for most applications (including aerial, buried, underground, vault and building entrance) and cables (including loose buffer tube, tight buffer tube, central tube, discrete fiber, ribbon fiber, armored or dielectric).

Fiber Optic Splice Closure 2178 Family

Multiple solutions for evolving networks.

The Fiber Optic Splice Closure 2178 family provides multiple real-world solutions with five key aspects:

1

A complete product family

The Fiber Optic Splice Closure 2178 family includes seven distinct models – XSB, XLB, S, SL, LS, LL and XL – in flame-retardant and non-flame-retardant versions with flexibility built-in for growing networks.

4

Flexible environment applications

The Fiber Optic Splice Closure 2178 family can be effectively used in nearly any application including aerial (pole and strand) mount, central office vault, manhole, pedestal, and handhole. It can also accommodate most splicing methods (mechanical and fusion) as well as in-line and butt-splicing configurations.

2

Future-ready solutions

The 2178 family has scalability and flexibility, allowing you to expand the system based on splicing capacity and the number of cable entry ports. It also allows you to defer your investment until it is required.

5

Network flexibility

We design a variety of sizes, materials (flame-retardant and non-flame-retardant) and configuration options so that our fiber optic splice closures can be used in almost every segment of the network. A single product family meets a range of needs.

3

Easily re-enterable designs

A reusable gasket makes re-entry easy, while bolted halves provide greater security. With the 2178 family, you can re-enter, reconfigure, and add or remove cables in most outside plant and inside plant environments.

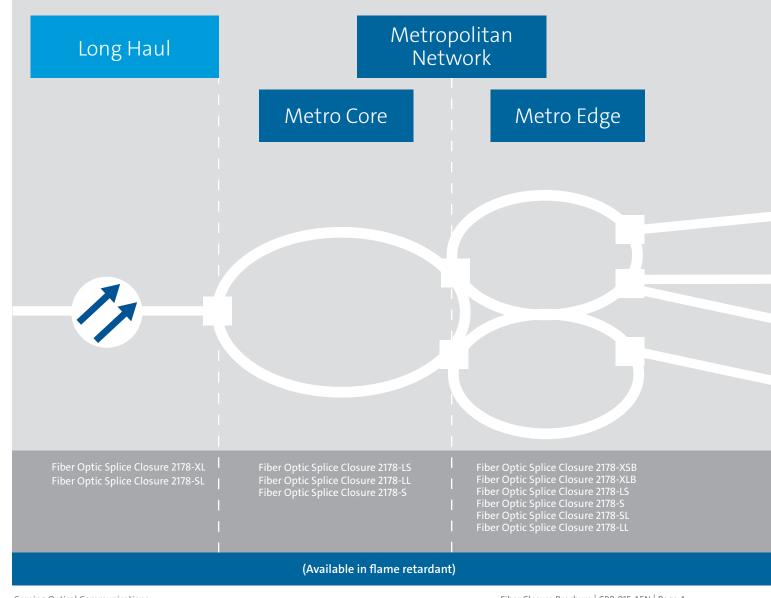


Fully Assembled Fiber Optic Splice Closure 2178-S with Two LBT Cables

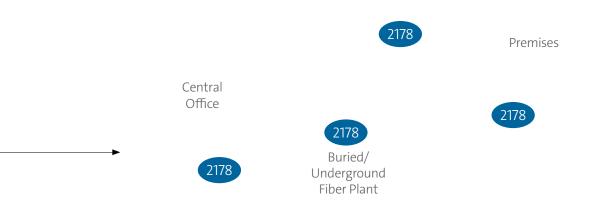


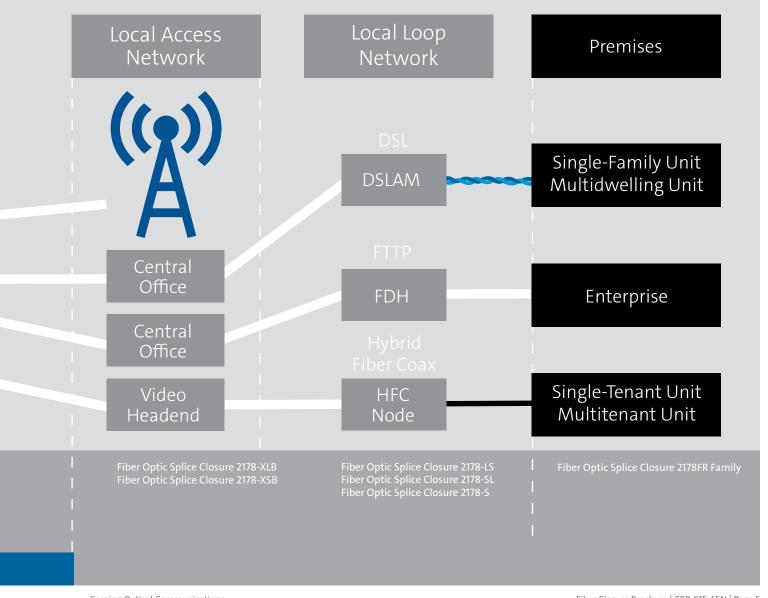
Fiber Optic Splice Closure 2178 Family

A flexible solution for different applications



Aerial Fiber Plant





More advantages with a complete solution

Flexibility that can save you time and money.

The Fiber Optic Splice Closure 2178 family provides excellent system flexibility for both existing and new fiber deployments. Products in the 2178 family are industry proven. The flexible design and common accessories allow you to maintain a reduced inventory, which can save time and money.

Smart design makes your job easier.

All 2178 closures are designed to be easy to install, easy to use, and easy to re-enter. The reusable gasket helps make re-entry as easy as any other system with almost no training necessary.

The 2178 family accommodates most splicing configurations (in-line or butt).



4- and 6-Port Grommets for Fiber Optic Splice Closure 2178 Series

Features to meet network demands.

The closures accommodate cables of varying sizes and provide flexibility to add ports with the cable addition kit. The Cable Addition Kits 2181-XL, 2181-XB, and 4- and 6-port grommets make system expansion even easier. A flexible tray system allows positionable or fixed splice inserts. Technicians can re-enter and swap out splice holders, and mix and match splice types (fusion and mechanical). The same tray can be used for discrete or mass splicing.

All of these features combine to give you an enhanced ability to offer optimum bandwidth for triple play services of voice, data, and video.

Fiber Optic Splice Closure 2178 Family

Features and Benefits	
Full range of sizes	Fits your specific application
No special tools required (standard torque wrench)	Easy installation and re-entry
Constructed of a highly chemical-resistant material	Can be deployed in most applications: buried, underground, and aerial
Gasket seals	Reusable for easy re-entry
Unique strength-member clamp assembly	Prevents cable sheath movement with temperature changes
Spacious fiber management areas	All closures provide separate areas for routing, protecting, and expressing buffer tubes and ribbon fibers
Flexible drop or cable addition	Multiport grommets provide entry for drops or cables
Flame-retardant materials	All 2178 closures are available in a flame-retardant model, giving you even more application choices Flame-Retardant Material: UL-94V-0

Reliable protection for your application

The Fiber Optic Splice Closure 2178 family provides secure protection for a broad range of fiber cables. The 2178 family is engineered to meet common needs and field conditions, with different sizes to accommodate varying splice counts, ideal for wide varieties of applications.



Fiber Optic Splice Closure 2178-XSB. Available in flame-retardant.



Fiber Optic Splice Closure 2178-XLB. Available in flame-retardant.



Fiber Optic Splice Closure 2178-S. Available in flameretardant.



Fiber Optic Splice Closure 2178-SL. Available in flameretardant.



Fiber Optic Splice Closure 2178-LS. Available in flame-retardant.



Fiber Optic Splice Closure 2178-LL. Available in flameretardant.



Fiber Optic Splice Closure 2178-XL. Available in flameretardant.

Grow as you go with multiple entry port configurations

Fiber Optic Splice Closure 2178

Size	Splice	Cable Entry	Maximum Splice	Splice	Maximum Cable Entry Ports			
(L x W x H)	Configuration	Ports	Capacity	Application	Main	Branch		
2178-XSB (14.6 x 10.1 x 4.6 in) (369.8 x 256.5 x 117.3 mm)	Butt	3 Butt	48 Single Fusion 288 Mass Fusion	Butt	2 Butt	1 Butt		
2178-XSB with one 2181-XB (14.6 x 10.1 x 6.73 in)	-	-	-	Butt	2 Butt	4 Butt		
2178-XLB (14.6 x 10.1 x 5.8 in) (369.8 x 256.5 x 147 mm)	Butt	3 Butt	96 Single Fusion 432 Mass Fusion	Butt	2 Butt	1 Butt		
2178-XLB with one 2181-XB (14.6 x 10.1 x 7.93 in)	_	_	-	Butt	2 Butt	4 Butt		
2178-S (21.9 × 8.5 × 4.7 in) (556.3 × 215.9 × 119.4 mm)	In-line Butt	4 In-line 2 Butt	96 Single Fusion 288 Mass Fusion	Butt or In-line	2 Butt, 2 In-line	0 Butt, 2 In-line		
2178-S with one 2181-LS (21.9 x 8.5 x 6.2 in)	_	_	_	Butt or In-line	2 Butt, 2 In-line	2 Butt, 6 In-line		
2178-S with two 2181-LS (21.9 x 8.5 x 7.7 in)	_	_	_	Butt or In-line	2 Butt, 2 In-line	4 Butt, 10 In-line		
2178-S with three 2181-LS (21.9 x 8.5 x 9.2 in)	-	_	-	Butt or In-line	2 Butt, 2 In-line	4 Butt, 10 In-line		
2178-SL (21.9 x 8.5 x 8.0 in) (556.3 x 215.9 x 203.2 mm)	In-line Butt	4 In-line 2 Butt	96 Single Fusion 288 Mass Fusion	Butt or In-line	2 Butt, 2 In-line	0 Butt, 2 In-line		
2178-SL with one 2181-LS (21.9 x 8.5 x 9.5 in)	_	_	_	Butt or In-line	2 Butt, 2 In-line	2 Butt, 6 In-line		
2178-SL with two 2181-LS (21.9 x 8.5 x 11.0 in)	-	-	-	Butt or In-line	2 Butt, 2 In-line	4 Butt, 10 In-line		

	Size	Splice	Cable	Maximum	Splice	Maximum Cable Entry Ports			
	(L×W×H)	Configuration	Entry Ports	Splice Capacity	Application	Main	Branch		
	2178-SL with three 2181-LS (21.9 x 8.5 x 12.5 in)	-	-	_	Butt or In-line	2 Butt, 2 In-line	6 Butt, 14 In-line		
	2178-LS (21.9 x 8.5 x 8.0 in) (556.3 x 215.9 x 203.2 mm)	In-line Butt	4 In-line 2 Butt	288 Single Fusion 864 Mass Fusion	Butt or In-line	2 Butt, 2 In-line	6 Butt, 14 In-line		
	2178-LS with one 2181-LS (21.9 x 8.5 x 9.5 in)	-	-	-	Butt or In-line	2 Butt, 2 In-line	2 Butt, 6 In-line		
	2178-LS with two 2181-LS (21.9 x 8.5 x 11.0 in)	-	_	_	Butt or In-line	2 Butt, 2 In-line	4 Butt, 10 In-line		
	2178-LS with three 2181-LS (21.9 x 8.5 x 12.5 in)	-	-	-	Butt or In-line	2 Butt, 4 In-line	6 Butt, 14 In-line		
	2178-LL (21.9 x 8.5 x 11.3 in) (556.3 x 215.9 x 287.0 mm)	In-line Butt	4 In-line 2 Butt	288 Single Fusion 864 Mass Fusion	Butt or In-line	2 Butt, 2 In-line	0 Butt, 2 In-line		
	2178-LL with one 2181-LS (21.9 x 8.5 x 12.8 in)	-	-	-	Butt or In-line	2 Butt, 2 In-line	2 Butt, 6 In-line		
	2178-LL with two 2181-LS (21.9 x 8.5 x 14.3 in)	-	_	-	Butt or In-line	2 Butt, 2 In-line	4 Butt, 10 In-line		
	2178-LL with three 2181-LS (21.9 x 8.5 x 15.8 in)	-	-	-	Butt or In-line	2 Butt, 4 In-line	6 Butt, 14 In-line		
	2178-XL (27.0 x 13.3 x 11.0 in) (660.4 x 337.8 x 279.4 mm)	In-line Butt	8 In-line 4 Butt	576 Single Fusion 1728 Mass Fusion	Butt or In-line	2 Butt, 2 In-line	2 Butt, 6 In-line		
ponios	2178-xl with one 2181-XL (27.0 x 13.3 x 14.25 in)	-	_	-	Butt or In-line	2 Butt, 2 In-line	6 Butt, 14 In-line		

Flexible fiber management

One of the greatest advantages of the Fiber Optic Splice Closure 2178 family is flexibility. With seven different closures, several tray choices, and expansion kits, there are more configuration choices than ever.

	Product Number	Description	Splices Accommodated	Splice Capacity Per Tray	2178 Closure
SITE N	2522*	Stackable hinged tray, fiber entry/exit at any corner of the tray, fixed splice holders	Single Fusion (3.0 x 60 mm) Single Mechanical (Fibrlok*) Mass Fusion	24 12 120	S, LS, LL, SL
* 11 %	2522-24-SF	Stackable hinged tray, fiber entry/exit at any corner of the tray, fixed splice holders	Single Fusion (3.0 x 60 mm)	24	S, LS, LL, SL
10 PK 11	2523*	Stackable hinged tray, fiber entry/exit at any corner of the tray, fixed splice holders	Single Fusion (3.0 x 60 mm) Single Mechanical (Fibrlok) Mass Fusion	48 24 144	S, LS, LL, SL, XL
1011	2523-48-SF	Stackable hinged tray, fiber entry/exit at any corner of the tray, fixed splice holders	Single Fusion (3.0 x 60 mm)	48	S, LS, LL, SL, XL
	2524*	Stackable, hinged tray lid, side entry, fixed splice holders	Single Fusion (3.0 x 60 mm) Single Mechanical (Fibrlok)	24 24	S, LS, LL, SL, XL
	2524-FT	Stackable, hinged tray lid, side entry, fixed splice holders	Single Fusion (3.0 x 60 mm)	24	S, LS, LL, SL, XL
1000	2527	Stackable, fiber entry/exit both ends of tray, positionable splice holders	Single Fusion (3.0 x 60 mm) Single Mechanical (Fibrlok) Mass Fusion	24 12 144	S, LS, LL, SL, XL
****	2527-48-SF	Stackable, fiber entry/exit both ends of tray, positionable splice holders	Single Fusion (3.0 x 60 mm)	48	S, LS, LL, SL, XL
	2532	Stackable, fiber entry/exit both ends of tray, positionable splice holders	Single Fusion (3.0 x 60 mm) Single Mechanical (Fibrlok) Mass Fusion	24 12 144	XLB XSB
I	2539-12-SF	Hinged, fixed spliced holders	Single Fusion (2.4 x 60 mm)	12	XLB XSB
	2540-12-SF/36-MF	Hinged, fixed spliced holders	Single Fusion (2.4 x 60 mm) Single Mechanical (Fibrlok) Mass Fusion	12 12 36	XLB XSB
10 ·	2543	Stackable, fiber entry/ exit both ends of tray, positionable splice holders	Single Fusion (3.0 x 60 mm) Single Mechanical (Fibrlok) Mass Fusion	24 12 144	S, LS, LL, SL, XL
	2543-D	Stackable, fiber entry/ exit both ends of tray, positionable splice hold- ers, 2 layers of splices	Single Fusion (3.0 x 60 mm) Single Mechanical (Fibrlok) Mass Fusion	96 48 288	S, LS, LL, SL, XL

^{*} Requires additional kit



Select the right combination for your specific application

As the chart below demonstrates, we provide several options for configuring the products you need today, with room to grow tomorrow. Follow the example to the right to find the components for your particular application.

Specifications — Fiber Optic Splice Closure 2178

		Cable Entry F	orts per Splicing	Configuration		
Product Configuration	0	Butt	Ir	ı-line		
· · · · · · · · · · · · · · · · · · ·	Main	Branch	Main	Branch	Size	
2178-S or SL	2	0	2	2	1.0 in	
2178-S or SL with one 2181-LS	2	0	2	2	1.0 in	
2178-S or SL w/ one 2181-LS	2	2 2	2	6	1.0 in	
2178-S or SL with two 2181-LS	2	0	2	2	1.0 in	
2178-S or SL with two 2181-LS	2	2	2	6	1.0 in	
2178-S or SL with two 2181-LS	2	4	2	10	1.0 in	
2178-S or SL with three 2181-LS	2	2	2	6	1.0 in	
2178-S or SL with three 2181-LS	2	4	2	10	1.0 in	
2178-S or SL with three 2181-LS	2	6	2	14	1.0 in	
2178-LS	2	0	2	2	1.0 in	
2178-LS with one 2181-LS	2	2	2	6	1.0 in	
2178-LS with two 2181-LS	2	4	2	10	1.0 in	
2178-LS with two 2181-LS	2	2	2	6	1.0 in	
2178-LS with three 2181-LS	2	4	2	10	1.0 in	
2178-LS with three 2181-LS	2	6	2	14	1.0 in	
2178-LL	2	0	2	2	1.0 in	
2178-LL with one 2181-LS	2	2	2	6	1.0 in	
2178-LL with two 2181-LS	2	4	2	10	1.0 in	
2178-LL with two 2181-LS	2	2	2	6	1.0 in	
2178-LL with three 2181-LS	2	4	2	10	1.0 in	
2178-LL with three 2181-LS	2	6	2	14	1.0 in	
2178-XSB	2	1	-	-	1-1.4 in 2-1.0 in	
2178 XSB with one 2181 XB	4	2	-	-	2-1.4 in 4-1.0 in	
2178 XLB	2	1	-	-	1-1.4 in 2-1.0 in	
2178 XLB with one 2181	4	2	-	-	2-1.4 in 4-1.0 in	
2178-XL	2	2	2	6	4-1.4 in 4-1.0 in	
2178-XL with one 2181-XL	2	6	2	14	8-1.4 in 8-1.0 in	
2178-XL with one 2181-XL	2	2	2	4	4-1.4 in 4-1.0 in	

How to use chart:

- 1. Select your splice configuration
- 2. Determine # of branch ports
- 3. Choose type of tray (p. 14)
- 4. Select appropriate splice capacity

Configuration Example — If your application requires:

- 1 Butt splice configuration
- Fixed-position splice holder

2 branch ports

4 96 single fusion splices

Then you would need the Fiber Optic Splice Closure 2178-S with one Cable Addition Kit 2181 and Splice Tray 2523.

									Splic	е Сара	acity p	er S	plice	Tray	/										
	25	27			2522		3	2523		25	24		2532		2539-	12-Sf	2540	-12-S Mf	f/36-		2543			2543-D	
Trays	SF 24	SF 48	MF 144	Trays	SF 24	MF 144	Trays	SF 48	MF 144	Trays	SF 24	Trays	SF 24	MF 144	Trays	SF 12	Trays	SF 12	MF 36	Trays	SF 24	MF 144	Trays	SF 96	MF 288
2	48	96	288	2	48	288	2	96	288	2	48	-	-	-	-	-	-	-	-	2	48	288	1	96	288
5	120	240	720	5	120	720	4	192	576	4	96	-	-	-	-	-	-	-	-	5	120	720	2	192	576
2	48	96	288	2	48	288	2	96	288	2	48	-	-	-	-	-	-	-	-	2	48	288	1	96	288
8	192	384	864	8	192	864	6	288	864	6	144	-	-	-	-	-	-	-	-	8	192	864	4	384	1152
5	120	240	720	5	120	720	4	192	576	4	96	-	-	-	-	-	-	-	-	5	120	720	2	192	576
2	48	96	288	2	48	288	2	96	288	2	48	-	-	-	-	-	-	-	-	2	48	288	1	96	288
8	120	384	864	8	192	864	6	288	864	6	144	-	-	-	-	-	-	-	-	8	192	864	4	384	1152
5	120	240	720	5	120	720	5	240	720	5	120	-	-	-	-	-	-	-	-	5	120	720	2	192	576
2	48	96	288	2	48	288	2	96	288	2	48	-	-	-	-	-	-	-	-	2	48	288	1	96	288
7	168	336	864	6	144	864	6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864	3	288	864
7	168	336	864	6	144	864	6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864	3	288	864
7	168	336	864	6	144	864	6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864	3	288	864
10	240	480	864	9	216	864	9	432	864	9	216	-	-	-	-	-	-	-	-	10	240	864	5	480	1440
10	240	480	864	9	216	864	9	432	864	9	216	-	-	-	-	-	-	-	-	10	240	864	5	480	1440
7	168	336	864	6	144	864	6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864	3	288	864
7	168	336	864	6	144	864	6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864	3	288	864
7	168	336	864	6	144	864	6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864	3	288	864
7	168	336	864	6	144	864	6	288	720	6	144	-	-	-	-	-	-	-	-	7	168	864	3	288	864
10	240	480	864	9	216	864	9	432	864	9	216	-	-	-	-	-	-	-	-	10	240	864	5	480	1440
10	240	480	864	9	216	864	9	432	864	9	216	-	-	-	-	-	-	-	-	10	240	864	5	480	1440
7	168	336	864	6	144	864	6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864	3	288	864
-	-	-	-	-	-	-	-	-	-	-	-	2	48	288	6	72	4	48	144	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	2	48	288	6	72	4	48	144	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	4	96	432	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	4	96	432	-	-	-	-	-	-	-	-	-	-	-
12	288	576	1728	12	288	1728	12	576	1728	12	288	-	-	-	-	-	-	-	-	12	288	1728	6	576	1728
12	288	576	1728	12	288	1728	12	576	1728	12	288	-	-	-	-	-	-	-	-	12	288	1728	6	576	1728
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	528	3168	12	1152	3456

	Splice Trays	
	Part Number/ Packaging Information	Description
	80-6102-8138-0 Package: 50 each Minimum Order: 50 each	Fiber Optic Splice Sleeve, $3.0 \times 60 \text{ mm}$ Transparent plastic tube and stainless steel rod designed to help prevent stress and protect fusion fiber optic splices in field and factory operations. (2170)
	80-6111-4669-9 Package: 50 each Minimum Order: 50 each	Fiber Optic Splice Sleeve, $2.4 \times 60 \text{ mm}$ Transparent plastic tube and stainless steel rod designed to help prevent stress and protect fusion fiber optic splices in field and factory operations. (2171)
E & LLV	80-6109-3259-4 Package: 10 kits Minimum Order: 10 kits	Cable Fan-Out Kit Transitions cable buffer tubes or single tube to fiber tube. (2519)
Sp.	80-6109-3260-2 Package: 10 kits Minimum Order: 10 kits	Cable Fan-Out Expander Kit Transitions one fiber tube to two fiber tubes. (2519-X)
	80-6108-5927-6 Package: 50 each Minimum Order: 50 each	Fiber Transition Tubing, 1 ft Protects 12 single or four 12-fiber ribbons between trays; cut in one-foot lengths. (2520)
	80-6108-6110-8 Package: 24 each Minimum Order: 24 each	Fiber Transition Tubing, 3 ft Protects 12 single or four 12-fiber ribbons between trays; cut in three-foot lengths. (2520-3FT)
	80-6113-2636-6 Package: 1 each Minimum Order: 1 each	Fiber Transition Tubing, 100 ft Protects 12 single or four 12-fiber ribbons between trays; cut in 100-foot lengths. (2520-100FT)
	80-6113-2634-1 Package: 6 each Minimum Order: 6 each	Fiber Transition Tubing Kit for loose buffer tube The Fiber Transition Tubing Kit 2518 is a 2 mm fiber transition tube kit for loose buffer tube cables. It is used to transition the fibers from the splice closure slack storage area to the splice tray. (2518)
	80-6108-5926-8 Package: 12 packages Minimum Order: 12 packages	Fusion Splice Insert, 2 Pack Holds 12 single fusion splices in each insert, used in Fiber Splice Organizer Trays 2538/2522/2523 3.0 x 60 mm single fusion heat-shrink sleeve required (Fiber Optic Splice Sleeve 2170 or equivalent). (2521-F)
	80-6108-5926-8 Package: 12 packages Minimum Order: 12 packages	Fibrlok® Splice Insert, 2 Pack Holds six Fibrlok or mass fusion splices in each insert, used in 2538/2522/2523 trays. Accommodates single ceramic rod 12-fiber mass fusion sleeves or double ceramic rod 4- to 6-fiber mass fusion sleeves. (2521-FL)
	80-6113-3204-2 Package: 24 each Minimum Order: 24 each	12RF Mass Fusion Splice Insert, Adhesive Back Adhesive backed splice insert that holds six Fibrlok Splices or Mass Fusion Splices, used in 2532 and 2543 trays. Accommodates single ceramic rod 12-fiber mass sleeves or double ceramic rod 4- to 6-fiber mass fusion sleeves. (2521-R-12RF-MF-A)
	80-6113-3202-6 Package: 24 each Minimum Order: 24 each	2.4 mm Single Fusion Splice Insert, Adhesive Back Adhesive backed splice insert that holds twelve single fusion splices in each insert, used in 2532 and 2543 trays. 2.4 x 60 mm single fusion heat shrink sleeve required (Fiber Optic Splice Sleeve 2171 or equivalent). (2521-R-2.4MM-SF-A)

	Splice Trays (continued)	
	Product Number/ Packaging Information	Description
	80-6113-3203-4 Package: 24 each Minimum Order: 24 each	3.0 mm Single Fusion Splice Insert, Adhesive Back Adhesive backed splice insert that holds twelve single fusion splices in each insert, used in Fiber Splice Organizer Tray 2532 and 2543. 3.0 x 60 mm single fusion heat-shrink sleeve required (Fiber Optic Splice Sleeve 2170 or equivalent). (2521-R-3.0MM-SF-A)
	80-6108-5924-3 Package: 12 pkgs. Minimum Order: 12 packages	Fibrlok® Multifiber Splice Insert, 2 Pack Holds four multifiber splices in each insert, used in Fiber Splice Organizer Tray 2522/2523. (2521-MF)
	80-6108-5928-4 Package: 12 pkgs. Minimum Order: 12 packages	Ribbon Fusion Splice Insert, 2 Pack Holds five ribbon fusion splices in each insert, used in 2522/2523 trays. Accommodates double ceramic rod 8- to 12-fiber mass fusion sleeves. (2521-RF)
	80-6113-2632-5 Package: 24 pkgs. Minimum Order: 24 packages	Single Fusion Splice Insert with Adhesive, 2 Pack Holds 12 single fusion splices in each insert, used in Fiber Splice Organizer Trays 2527/2532. 3.0 x 60 mm single fusion heat-shrink sleeve required (2170 sleeve or equivalent). (2521-F-A)
	80-6113-2604-4 Package: 24 pkgs. Minimum Order: 24 packages	Ribbon Fusion Splice Insert with Adhesive, 2 Pack Holds six Fibrlok or mass fusion splices in each insert, used in Fiber Splice Organizer Tray 2527/2522. Accommodates single ceramic rod 12-fiber mass fusion sleeves or double ceramic rod 4- to 6-fiber mass fusion sleeves. (2521-FL-A)
A PARTIE S	80-6108-5990-4 Package: 2 each Minimum Order: 2 each	Small Fiber Splice Organizer Tray Holds two 2521 family splice inserts.* The 2522 tray stores and protects single and mass, mechanical, and fusion splices. The 2521 family splice inserts are easily added to secure splices into the trays. Fibers are routed into the trays using Transition Tubing 2520 that zips over the fibers. (2522) *Splice inserts must be ordered separately.
	80-6113-1655-7 Package: 2 each Minimum Order: 2 each	Small Fiber Splice Organizer Tray, 24SF Holds 24 single fusion splices. 3.0 x 60 mm single fusion heat-shrink sleeve required (2170 or equivalent). (2522-24-SF)
A PACIFIC STATE OF THE PACIFIC	80-6108-5991-2 Package: 2 each Minimum Order: 2 each	Large Fiber Splice Organizer Tray Holds four 2521 family splice inserts.* The 2523 tray stores and protects discrete and mass, mechanical, and fusion splices. The Fiber Splice Organizer Tray 2521 inserts are easily added to secure splices into the trays. Fibers are routed into the trays using Fiber Transition Tubing 2520 that zips over the fibers. (2523) *Splice inserts must be ordered separately.
1111	80-6113-1651-6 Package: 2 each Minimum Order: 2 each	Large Fiber Splice Organizer Tray, 48SF Holds 48 single fusion splices. 3.0 x 60 mm single fusion heat shrink sleeve required (2170 sleeve or equivalent). (2523-48-SF)

	Splice Trays (continued)	
	Product Number/ Packaging Information	Description
	80-6106-1688-2 Package: 2 each Minimum Order: 2 each	Fibrlok® Splice Organizer Tray Holds 24 Fibrlok Splices and eight buffer tubes. The Fibrlok Splice Organizer Tray 2524 holds 24 Fibrlok splices. The 2524 tray can be adapted for fusion splice storage using the 2524F tray insert. Buffer tubes are secured with channel snaps so that cable ties are not required. The fibers all enter the tray in one corner, eliminating the need for figure 8's in the fiber. An important design feature of these stackable trays is the snap-on hinge cover on each tray. Individual trays may be accessed without disassembly of the trays above or below — and without kinking buffer tubes. (2524)
	78-8070-2884-6 Package: 24 each Minimum Order: 24 each	Fusion Splice Insert Adapts the 2524 tray for fusion splices. 3.0 x 60 mm single fusion heat-shrink sleeve required (Fiber Optic Splice Sleeve 2170 or equivalent). (2524-F)
	80-6106-1687-4 Package: 2 each Minimum Order: 2 each	Fusion Splice Organizer Tray Holds 24 single fusion splices. Holds up to 24 fusion splices. Buffer tubes are secured with channel snaps so that cable ties are not required. The fibers all enter the tray in one corner eliminating the need for figure 8's in the fiber. An important design feature of these stackable trays is the snap-on hinge cover on each tray. Individual trays may be accessed without disassembly of the trays above or below — and without kinking buffer tubes. 3.0 x 60 mm single fusion heat-shrink sleeve required (2170 sleeve or equivalent). (2524-FT)
	80-6106-1688-2 Package: 2 each Minimum Order: 2 each	Multifiber Splice Organizer Tray Holds three Fibrlok Multifiber and four single Fibrlok splices. (2524-MF)
44	80-6111-7558-1 Package: 2 each Minimum Order: 2 each	Fiber Splice Organizer Tray The Fiber Splice Organizer Tray 2527 accommodates up to 24 single fusion or 144 mass splices and has entry from all corners. It maintains the minimum bend radius of fiber. The tray has a clear cover and splice holders included. 3.0 x 60 mm single fusion heat-shrink sleeve required (2170 sleeve or equivalent). (2527)
E	80-6113-2587-1 Package: 2 each Minimum Order: 2 each	Fiber Splice Organizer Tray The 2527 tray accommodates up to 48 single fusion splices and has entry from all corners. It maintains the minimum bend radius of fiber. The tray has a clear cover and splice holders included. 3.0 x 60 mm single fusion heat-shrink sleeve required. (2527-48-SF)
	80-6113-0480-1 Package: 2 each Minimum Order: 2 each	Fiber Splice Organizer Tray Tray is stackable and accommodates 24 single and 72 mass fusion splices. 3.0 x 60 mm single fusion heat-shrink sleeve required (Fiber Optic Splice Sleeve 2170 or equivalent). (2532)
	80-6113-1715-9 Package: 2 each Minimum Order: 2 each	Fiber Optic Splice Tray with 12 Single Fusion Splices Hinged tray that accommodates 12 single fusion splices. Only for 2178-XSB closures. 2.4 x 60 mm single fusion heat-shrink sleeves required (2171 sleeve or equivalent). (2539-12-SF)
	80-6113-1716-7 Package: 2 each Minimum Order: 2 each	Fiber Optic Splice Tray with 12 Single/36 Mass Fusion Hinged tray that accommodates up to 12 single fusion and 36 mass fusion splices. Only for 2178-XSB closures. 2.4 x 60 mm single fusion heat-shrink sleeves required (2171 sleeve or equivalent). (2540-12-SF/36-MF)
	80-6113-3199-4 Package: 2 each Minimum Order: 2 each	Fiber Optic Splice Tray Tube Entry, 144 Mass Fusion Accommodates up to 144 mass fusion splices and has entry from all corners for standard transition or LBT tubes. (2543-S-144-MF)

	Splice Trays (continued)	
	Product Number/ Packaging Information	Description
	80-6113-3195-2 Package: 2 each Minimum Order: 2 each	Fiber Optic Splice Tray Tube Entry, 24SF 2.4 mm Accommodates up to 24 single fusion splices and has entry from all corners. The single fusion splice inserts accommodate the Fiber Optic Splice Sleeve 2171 or equivalent 2.4 x 60 mm heat-shrink sleeve. (2543-S-24-SF-2.4MM)
222	80-6113-3196-0 Package: 2 each Minimum Order: 2 each	Fiber Optic Splice Tray Tube Entry, 24SF 3.0 mm Accommodates up to 24 single fusion splices and has entry from all corners. The single fusion splice inserts accommodate the Fiber Optic Splice Sleeve 2170 or equivalent 3.0 x 60 mm heat-shrink sleeve. (2543-S-24-SF-3.0MM)
	80-6113-3198-6 Package: 2 each Minimum Order: 2 each	Fiber Optic Splice Tray 2520 Tube Entry, 144 MF Accommodates 144 mass fusion splices. Fibers are routed into the trays using Fiber Transition Tubing 2520-6RF that zips over the fibers. The tray has entry from all corners. (2543-T-144-MF)
	80-6113-3197-8 Package: 2 each Minimum Order: 2 each	Fiber Optic Splice Tray 2520 Tube Entry 24SF 3 mm/144 MF Accommodates 24 single fusion (3.0 x 60 mm) or 144 mass fusion splices. Fibers are routed into the trays using 2520-6RF tubing that zips over the fibers on one end of the tray. Standard transition tube or LBT securing is available on the other end of the tray. (2543-U-24SF-3MM/144MF)
000	80-6113-3088-9 Package: 1 each Minimum Order: 1 each	1x32 PLC 2527 Splitter Tray Input Splicing Fiber Optic Organizer Tray 2527 with one 1x32 PLC Splitter, SM discrete 250 μm input/output fibers, with 12-splice holder. (2527-1X32PLC-01-SF2-AA)

	Expansion	
	Product Number/ Packaging Information	Description
<u>a</u>	80-6108-6076-1 Package: 100 each Minimum Order: 100 each	Strength Member Clamp for fiber cable Clamps strength member to cable sheath for 2178-L/S closures. (2172)
0	80-6109-3321-2 Package: 10 kits Minimum Order: 10 kits	Gasket Kit for 2178-L/S Family Replaceable gasket kit. (2178-LS/GSKT)
	80-6114-8670-7 Package: 1 each Minimum Order: 1 each	Fiber Closure 2178 XLB Top XLB Closure Top (2178-XLB-TOP)
275275 20070 10070	80-6113-1460-2 Package: 5 each Minimum Order: 5 each	Cable Branch Port Kit for 2178-XSB and XLB Single cable entry for 1.4 in cable entry port. (2178-XSB-1.4B)
***************************************	80-6113-1459-4 Package: 5 each Minimum Order: 5 each	4-Port Grommet Compatible with most flat drop cable available. For use with all 2178 models. For use with 1.0 in ports. (2178-4PGA)
	80-6113-1458-6 Package: 5 each Minimum Order: 5 each	6-Port Grommet Compatible with most flat drop cable available. For use only with the 2178-XSB, 2178-XLB, and 2178-XL closures. For use with 1.4 in ports. (2178-6PGA)
	80-6114-8677-2 Package: 1 kit Minimum Order: 1 kit	Double Adapter Bolt Kit Contains bolts for installation of two Cable Addition Kits 2181-LS or 2181-LS/FR. (2181-B)
	80-6114-8678-0 Package: 1 kit Minimum Order: 1 kit	Triple Adapter Bolt Kit Contains bolts for installation of three, 2181-LS or 2181-LS/FR cable addition kits. (2181-C)
8	80-6114-8679-8 Package: 1 each Minimum Order: 1 each	Cable Addition Kit Contains gasket and materials for installing additional cables. For use with 2178-L/S family closures. (2181-LS)
6	80-6110-1285-9 Package: 1 each Minimum Order: 1 each	Cable Addition Kit, Flame Retardant Contains gasket and materials for installing additional cables and is flame retardant. For use with 2178-L/S fire retardant closures. (2181-LS/FR)
	80-6114-8685-5 Package: 1 each Minimum Order: 1 each	Cable Addition Kit for 2178-XL Contains gasket and materials for installing additional cables. For use with 2178-XL closure. (2181-XL/CAK)
	80-6113-2682-0 Package: 1 each Minimum ORDER: 1 each	Cable Addition Kit for 2178-XL Contains gasket and materials for installing additional cables. For use with 2178-XL/FR flame-retardant closure. (2181-XL/FR-CAK)
	80-6114-8684-8 Package: 1 each Minimum Order: 1 each	Cable Addition Kit for 2178-XB Contains gasket and materials for installing additional cables. For use with 2178-XSB and -XLB closures. (2181-XB)
	80-6113-3386-7 Package: 1 each Minimum Order: 1 each	Cable Addition Kit for 2178-XSB/FR & 2178-XLB/FR Cable addition kit for the 2178-XLB/FR and 2178-XSB/FR closures. Allows for the addition of 3 cable ports. Contains three cable entry hardware kits. (2181-XB/FR)

	Expansion (continued)	
	Product Number/ Packaging Information	Description
O Property	80-6113-2761-2 Package: 10 each Minimum Order: 10 each	Cable Strain Relief Bracket Contains materials for installing additional cables. For use with 2178-L/S family of closures. (2178-LS-CSB-SMC-BRKT)
0	80-6113-2711-7 Package: 5 each Minimum Order: 5 each	Cable Grommet for Corning RPX Cable To be used in the 2178 1.0 in cable entry port. (2178-1.0-PORT-CRPX)
	80-6113-2944-4 Package: 2 each Minimum Order: 2 each	Flame-Retardant 3-Port 0.52 in Grommet This grommet can only be used with the 2178-XSB/FR, 2178-XLB/FR and 2178-XL/FR closures. For use with 1.4 in port only. (2178-XL/XSB-FR-3PG-0.52)
	80-6113-2186-2 Package: 2 each Minimum Order: 2 each	Flame-Retardant 2-Port 0.60 in Grommet This grommet can only be used with the 2178-XSB/FR, 2178-XLB/FR and 2178-XL/FR closures. For use with 1.4 in port only. (2178-XL/XSB-FR-2PG-0.60)

	Grounding	
	Product Number/ Packaging Information	Description
4400	80-6109-3322-0 Package: 5 each Minimum Order: 5 each	External Ground Isolation Kit Provides a means to ground each cable shield with waterproof isolation. The 2178-EGI housing can be used with any 2178 closure utilizing the 1.0 in port. Contents: two 2178-EGI housing assemblies and caps, two ground wire assemblies, two O-rings, two bolts and two 4460-D/FO shield bond connectors. (2178-EGI)
	80-6100-9615-0 Package: 1 each Minimum Order: 1 each	Bond Braid With 6 in eyelets. (25T-BBE6)
No. 18	80-6108-4444-3 Package: 100 each Minimum Order: 100 each	Scotchlok Shield Bond Connector Assembly Provides grounding and strength member clamp for armored fiber cables. (4460-D/FO)

	Mounting Hardware					
	Product Number/ Packaging Information	Description				
	80-6107-6137-3 Package: 1 kit Minimum Order: 1 kit	Universal Aerial Hanger Bracket Kit Hardware for aerial installation of the 2178-LS family splice closures (S, SL, LS, LL). The kit also accommodates the 2178 splice closure with one or two Cable Addition Kits 2181. Contents: four nylon stop nuts, two corner inserts with studs, two universal hanger bracket assemblies. (2183-UHB)				
W	80-6113-1769-6 Package: 10 kits Minimum Order: 10 kits	Adjustable Aerial Hanger Bracket Kit Adjustable aerial hanger bracket kit for the 2178-XSB, 2178-XLB, 2178-S, 2178-LS, and 2178-SL closures. (2184)				
	80-6113-2559-0 Package: 10 kits Minimum Order: 10 kits	Aerial Offset Hanger Bracket Kit Lightlinker Aerial Offset Hanger Bracket 2184-LL is designed to work with the Fiber Splice Closure System LL Series and the Fiber Optic Splice Closure 2178-XL. (2184-LL)				
	80-6107-5610-0 Package: 1 kit Minimum Order: 1 kit	Aerial Hanger Bracket Kit Contains hardware for aerial installation with hinged cover. For 2178-L/S family splice closures (S, SL, LS, LL). The kit also accommodates the 2178 splice closure with one or two 2181 cable addition kits. It provides additional hardware to attach the splice closure cover to its base. Contents: six corner inserts, 12 nuts, two flexible hinges, two "L" brackets, two bonding/hanger brackets and two bolts with washers. (2197)				
17/2	80-6108-6077-9 Package: 1 kit Minimum Order: 1 kit	Wall Mount Bracket For use with 2178-XSB, 2178-XLB, 2178-S, 2178-SL, 2178-LS and XL fiber closures. (2198)				
1	80-6109-3320-4 Package: 1 kit Minimum Order: 1 kit	Wall Mount Bracket For use with 2178-S, LS and LL fiber closures. (2199)				
"	80-6113-1470-1 Package (lbs.): 10 sets (4.00) Minimum Order: 10 sets	Aerial Offset Hanger Bracket, 4.0 in For overlashing application. (AC-HB4)				
200	80-6113-3047-5 Package: 2 each Minimum Order: 2 each	OPGW Cable Bracket For use with 2178-S and 2178-LS fiber closures. (2178-S/LS-OPGW)				

	General					
	Product Number/ Packaging Information	Description				
	80-6113-3110-1 Package: 10 each Minimum Order: 1 pack	Plastic Threaded Inserts Threaded inserts for the 2178-XSB, XLB, XL splice closures. (2178-XB/XL-T-INSERT-G)				
	80-6113-2093-0 Package: 10 each Minimum Order: 1 pack	Stainless Steel Threaded Inserts Threaded inserts for the 2178-S, SL, LS and LL splice closures. (2178-L/S-T-INSERT)				
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	80-6113-3111-9 Package: 10 each Minimum Order: 1 pack	Plastic Threaded Inserts Inserts for 2178-S, SL, LS, LL splice closures. (2178-L/S-T-INSERT-G)				
A.	80-6113-2094-8 Package: 10 each Minimum Order: 1 pack	Cable Addition Replacement Bolts Bolts used with a single Cable Addition Kit 2181-LS. (2178-L/S-375-BOLTS)				
Market B.	80-6113-2095-5 Package: 10 each Minimum Order: 1 pack	Standard Closure Bolts Bolts for the 2178-S, LS, LL, XSB, XLB and XL splice closures. (2178-L/S-248-BOLTS)				
	80-6105-8223-3 Package: 10 kits Minimum Order: 10 kits	Cable Cleaning Kit Provides all the necessary materials for cleaning the filling compound from filled copper and fiber optic cables in an easy-to-transport kit. (4415)				
The state of the s	80-6105-8080-7 Package: 1 kit Minimum Order: 1 kit	Reflective Lettering System Kit Each kit contains 25 each A-Z, 0-9, blank and dash characters packaged in a clear, 36-compartment box, including an application tool. (5005-KIT)				
Common of the Co	80-6113-2187-0 Package: 1 each Minimum Order: 1 kit	Tool Kit with Torque Wrench Kit includes sockets, extension and torque wrench. (2178-2T-LL-CLTK)				

Fiber Optic Splice Closure 2178 Configurations

Features	2178-XSB	2178-XLB	2178-5	2178-54	2178-56	
Cable Entry Ports & Size						
In-line	0	0	4	8	12	
Butt	3	3	2	4	6	
Size - Inches (mm)	2-1.0 in (25 mm) 1-1.4 in (35 mm)	2-1.0 in (25 mm) 1-1.4 in (35 mm)	1.0 in (25 mm)	1.0 in (25 mm)	1.0 in (25 mm)	
Splice Capacity (maximum) And Tray Information	n					
Single Fusion	72	96	96	96	96	
Mass Fusion	288	432	288	288	288	
Trays *Most Popular	2532* 2539 2540	2532* 2539 2540	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	
Bonding & Grounding						
# of Ground Lugs	0, 2, 3 or 6	0, 2, 3 or 6	0, 2, or 4			
Dimensions (inches)						
Length	14.6 in (370 mm)	14.6 in (370 mm)	21.9 in (556 mm)	21.9 in (556 mm)	21.9 in (556 mm)	
Width	10.1 in (257 mm)	10.1 in (257 mm)	8.5 in (216 mm)	8.5 in (216 mm)	8.5 in (216 mm)	
Height	4.6 in (117 mm)	5.8 in (147 mm)	4.7 in (119 mm)	6.2 in (158 mm)	7.7 in (196 mm)	
Key Accessories						
Cable Port Or Splice Capacity Expansion	2181-XB	2181-XB	2181-LS 2181-B 2181-C	2181-LS 2181-B 2181-C	2181-LS 2181-C	
Grommets	2178-4PGA 2178-6PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-6PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	
Mounting Hardware						
Aerial Strand Mount	2184	2184	2183, 2184, or 2197			
Manhole	2198	2198	2198			
Handhole	2198	2198	2198			
Aerial Pole Mount	2198	2198	2198			
Wall Mount	2198	2198	2198 or 2199			
Flame/Fire Retardant Solution (UL Listed*)						
PRODUCT	2178-XSB/FR* 2181-XB/FR*	2178-XLB/FR* 2181-XB/FR*	2178-S/FR* 2181-LS/FR*	2178-S4/FR 2181-LS/FR*	2178-S6/FR 2181-LS/FR*	

Note: The deeper base of the 2178-SL and 2178-LL closures provides for additional slack storage for buffer tubes and ribbons. The 2181 Cable Addition Kits can be used to increase splice capacity or port capacity. Maximum splice capacity varies per the splice tray selected for each closure.

2178-SL	2178-LS	2178-LS4	2178-LS6	2178-LL	2178-LL4	2178-XL
4	4	8	12	4	8	8
2	2	4	6	2	4	4
1.0 in (25 mm)	4 - 1.0 in (25 mm) 4 - 1.4 in (35 mm)					
						_
96	288	288	288	288	288	1152
288	864	864	864	864	864	3456
2522* 2523 2524 2527 2543 2543-D	2522* 2523 2524 2527 2543 2543-D	2522* 2523 2524 2527 2543 2543-D	2522* 2523 2524 2527 2543 2543-D	2522* 2523 2524 2527 2543 2543-D	2522* 2523 2524 2527 2543 2543-D	2522* 2523 2527 2543 2543-D
0, 2, or 4	0, 2, or 4			0, 2, or 4, 8		0, 4, or 8
21.9 in (556 mm)	1.9 in (556 mm)	27.0 in (660 mm)				
8.5 in (216 mm)	13.3 in (337 mm)					
8.0 in (203 mm)	8.0 in (203 mm)	9.5 in (241 mm)	11.0 in (279 mm)	11.3 in (287 mm)	12.8 in (325 mm)	11.0 in (279 mm)
2181-LS 2181-B 2181-C	2181-LS 2181-B 2181-C	2181-LS 2181-B 2181-C	2181-LS 2181-C	2181-LS 2181-B 2181-C	2181-LS 2181-B 2181-C	2181-XL/CAK
2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CPRX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX		2178-4PGA 2178-6PGA 2178-1.0-PORT-CRPX
2183, 2184, or 2197	2183, 2184, or 2197			2183 or 2197		2184-LL
2198	2198			2198		2198
2198	2198			2198		2198
2198	2198			2198		2198
2198 or 2199	2199			2199		2198
N/A	2178-LS/FR* 2181-LS/FR*	2178-LS4/FR 2181-LS/FR*	2178-LS6/FR 2181-LS/FR*	2178-LL/FR* 2181-LS/FR*	2178-LL4/FR 2181-LS/FR*	2178-XL/FR* 2178-XL/CAK-FR

