



A E R I A L Fiber Distribution Hub

Installation Instructions

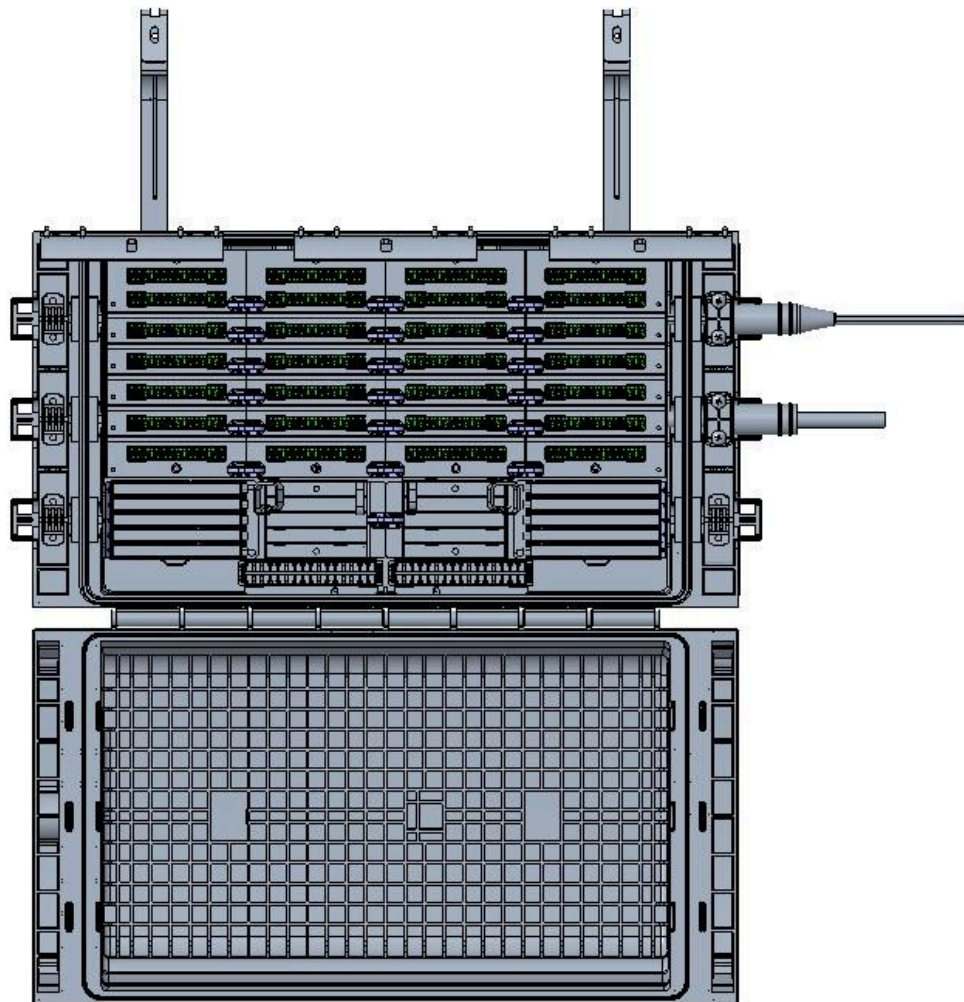




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Product Description/Overview

STL's Aerial FDH (Fiber Distribution Hub) is a critical component in fiber FTTH (Fiber to the Home) PON deployments. It acts as a central point for connecting and distributing fiber optic cables, containing optical splitters. The Aerial FDH facilitates the connection between feeder and distribution cables, enabling the delivery of high-speed internet and other services to homes and businesses. Service connections, reconfigurations and testing in the outside plant network are greatly simplified and faster. Designed for those applications where mounting to the pole is prohibitive and ground mount cabinets are not possible, STL's Aerial FDH uses an offset bracket which mounts directly on the messenger strand allowing the FDH to hang below lashed telecommunications cabling. By attaching to the strand, many permitting restrictions can be avoided as well as gaining increased security vs. traditional ground mount cabinets. The Aerial FDH may be used in both centralized and distributed split architectures.

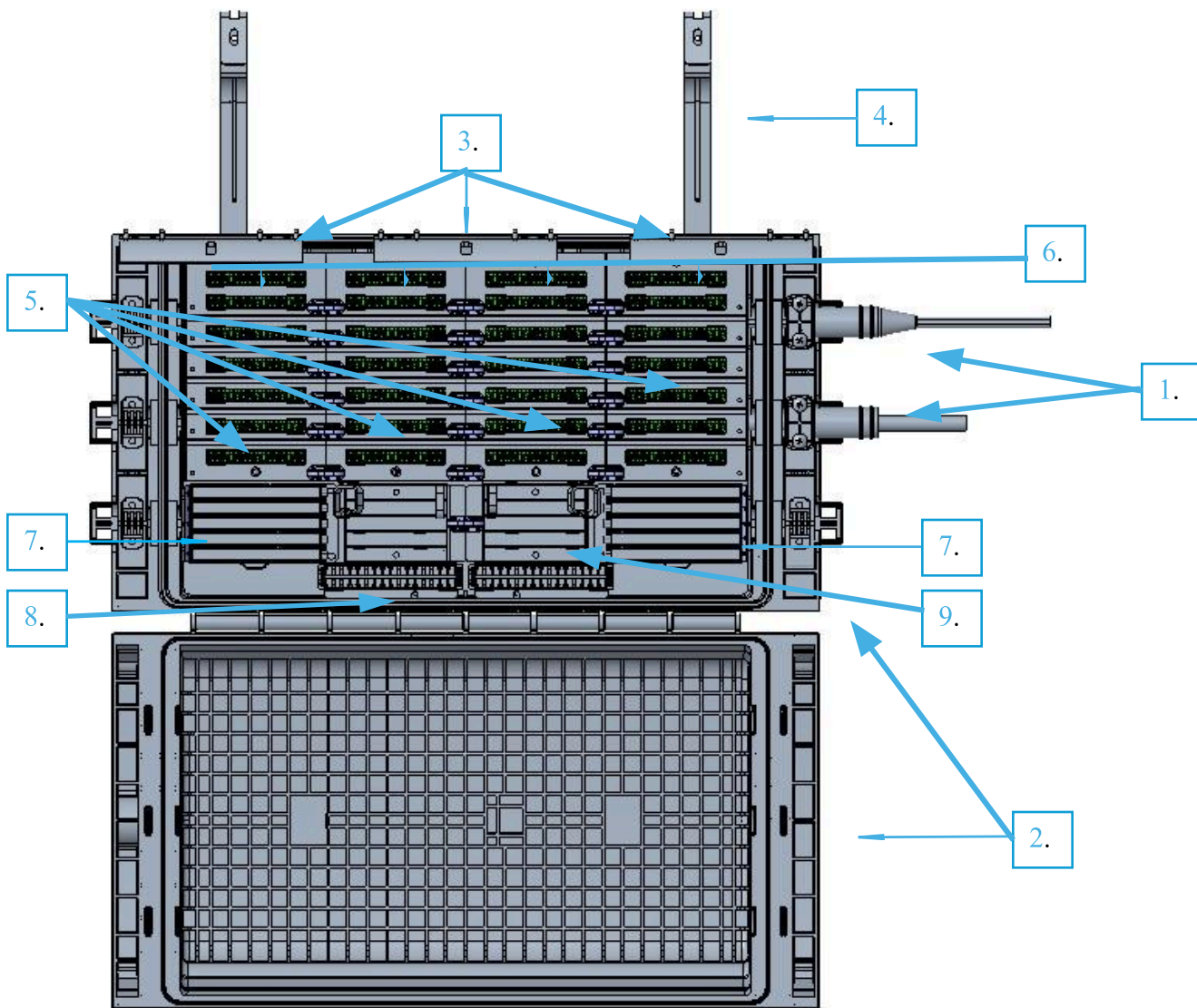
Features:

- Equipped with 100-foot IBR (Intermittently Bonded Ribbon) factory terminated and tested feeder and distribution cables for simplified field installation. 12, 24 or 48 fiber feeder cable options.
- Available in either 144 or 288 output distribution ports.
- 10 splitter slots available.
 - a. 1x16, 1x32 or 1x64 splitters may be used
- Splitters are either factory installed based on customer specifications or installed by customer as needed.
- Intuitive fiber routing paths with bend radius protection.
- Slack storage.
- A2 bend insensitive fiber is used on all splitter tails (1.2mm).
- Integrated parking lot feature for up to 64 fibers.
- Molded IP55 hinged case.
- Dimension – [21" X 11" X 8"] 540 x 288 x 205mm
- LC connections with pull tabs.

Technical Specifications

Dimensions	21" x 11" x 8" (540 x 288 x 205)
Weight	~20lbs (9kg)
Feeder Ports	12-48
Distribution Ports	96-288
Cable Entrances	6
Mounting Options	Aerial, Pedestal
Splitter Slots	10
Connector Types	LC/APC
Cable Types	12-48F IBR Flat, 96-288 IBR Round

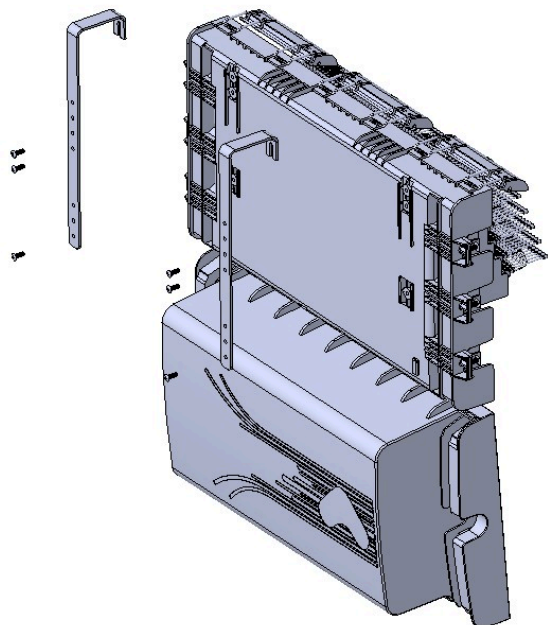
Components



1. Fiber Feeder and Distribution Cables
2. Closure Base and Lid
3. Clasps for Sealing Closure
4. Aerial Strand Mount Bracket
5. FDH Distribution Ports
6. FDH Feeder Ports
7. Splitter Slots
8. Parking Lot
9. Splitter Pigtail Storage

Aerial Strand Mounting

The Aerial FDH is designed for easy installation to the messenger strand. Secure the aerial mount bracket to the back of the base of the closure with 4 provided screws. The brackets have a slotted opening allowing for height adjustment in relation to the strand.



Loosen the outer nut on the bug nut and position on the messenger strand. Secure to the strand by tightening the outer nut with a can wrench or socket wrench.



Feeder and Distribution Cables

Feeder cables are available with either a 12, 24 or 48-fiber IBR (intermittently bonded ribbon) all dielectric fiber optic cable or Loose Buffer Tube (LBT) style cable. The standard length for both the Feeder and Distribution cables is 100-feet and will enter the FDH on the right-hand side as shown in the Components diagram.

Both Feeder and Distribution cables are factory spliced to the Feeder and Distribution ports (see Component layout diagram).

Feeder and Distribution cables are to be spliced in a splice case per industry standard and specific manufacturer guidelines for the splice case being used.

Opening and Closing



STL's Aerial FDH is equipped with 3 latches for securing the lid to the base of the closure.

To open, simply release the latches and allow the lid to swing down gently. Reverse for closing.

Labeling

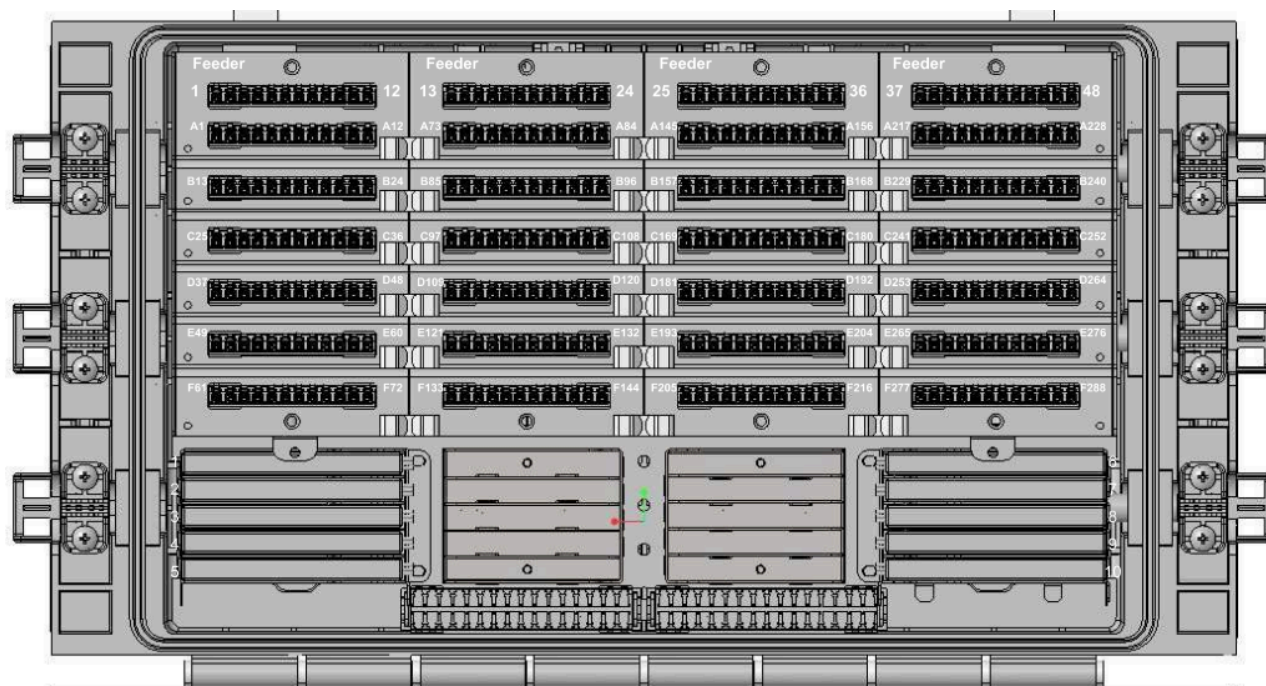


Diagram above shows the FDH as it would hang on the strand.

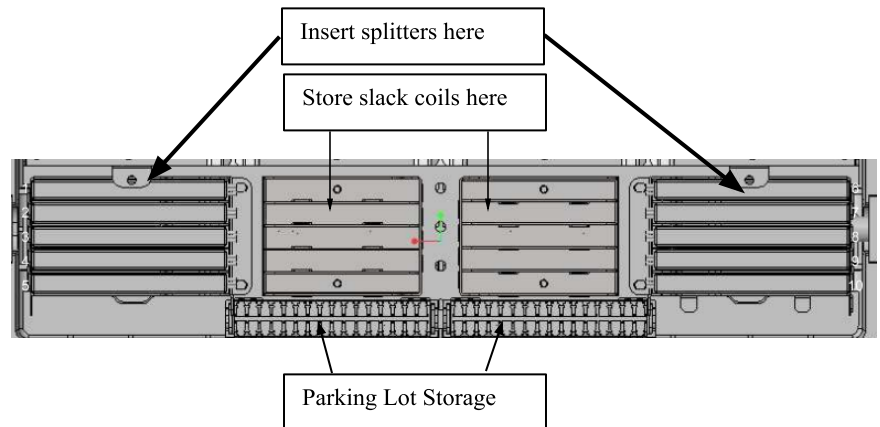
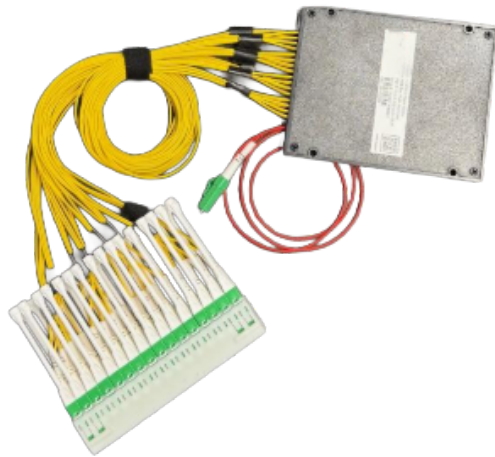
The top row of LC adapters in labeled 1–48 for the Feeder ports. The number of active feeder ports is determined by the Feeder fiber count chosen, 12, 24 or 48.

Below the Feeder ports are the Distribution ports labeled either 1– 144 or 1-288 depending on which version of the Aerial FDH is being deployed.

Splitter slots are found on the bottom left and right of the closure with slots 1-5 on the left and 6-10 on the right. It is recommended to start with the first splitter installed in slot 1.

Splitter Installation

10 splitter slots are available in the Aerial FDH. 1X32 Splitter outputs comprised of 1.2mm cordage come connected to a parking lot for easy storage within the closure. There are parking slots for 2 splitters (1X32). Single red fiber indicates the splitter input. All output fibers are individually labeled. It is recommended to install the first splitter in slot #1, second splitter in slot #6, third splitter in slot #2. Continue populating in this manner working left to right and top to bottom.



Splitter Pigtail Routing

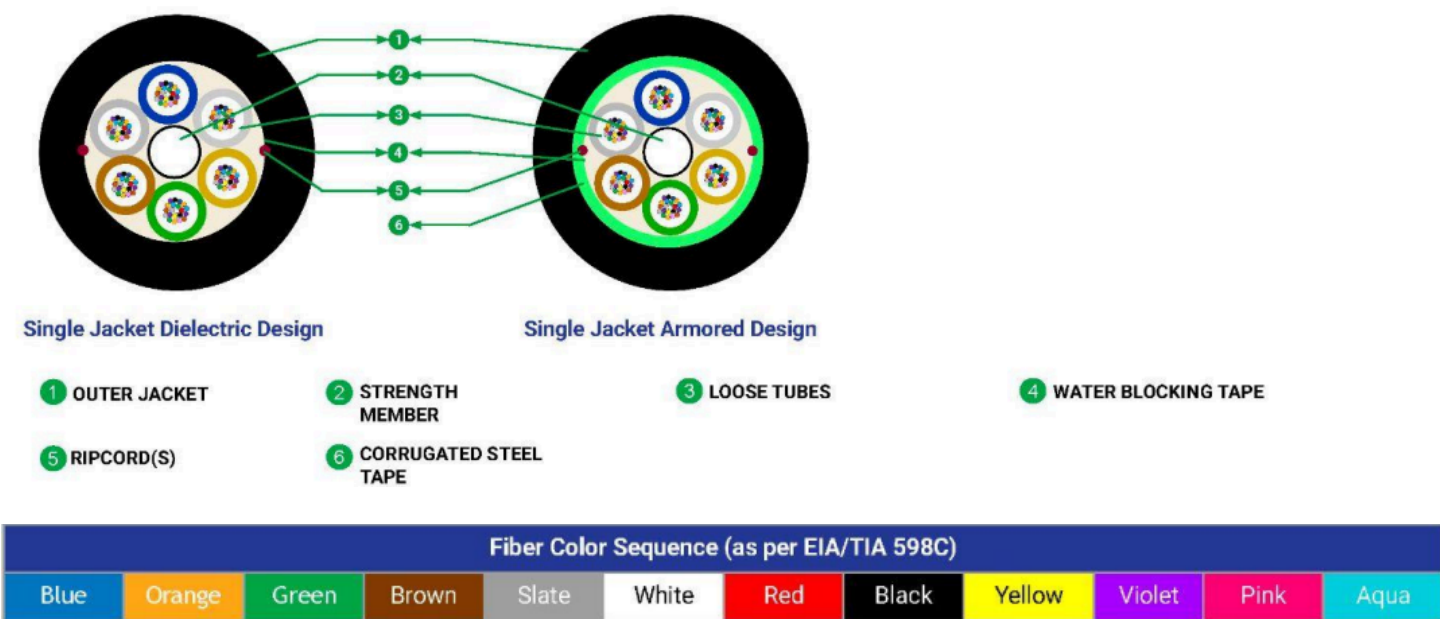


Install splitters starting with the top left slot (#1). Route and connect red input fiber of the splitter to Feeder port #1. Route and connect yellow output fibers from the splitter to Distribution ports as needed with any unused splitter output fibers stored in the Parking Lot. Follow branch and tree method shown in the diagram above utilizing the fiber management rings. Keep excess slack from the splitter output fibers coiled in the slack storage slots. It is recommended to install the first splitter in slot #1, second splitter in slot #6, third splitter in slot #2. Continue populating in this manner working left to right and top to bottom

Splicing

Feeder (12, 24 or 48 fiber) and Distribution (144 or 288 fiber) cables are available in either STL’s RapidTube, which is a standard loose buffer tube type cable or Celesta Intermittently Bonded Ribbon (IBR) fiber cable.

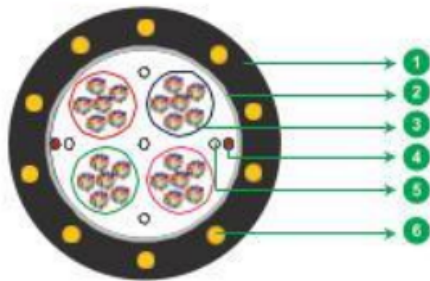
RapidTube
MLT OFC - Duct & Armored



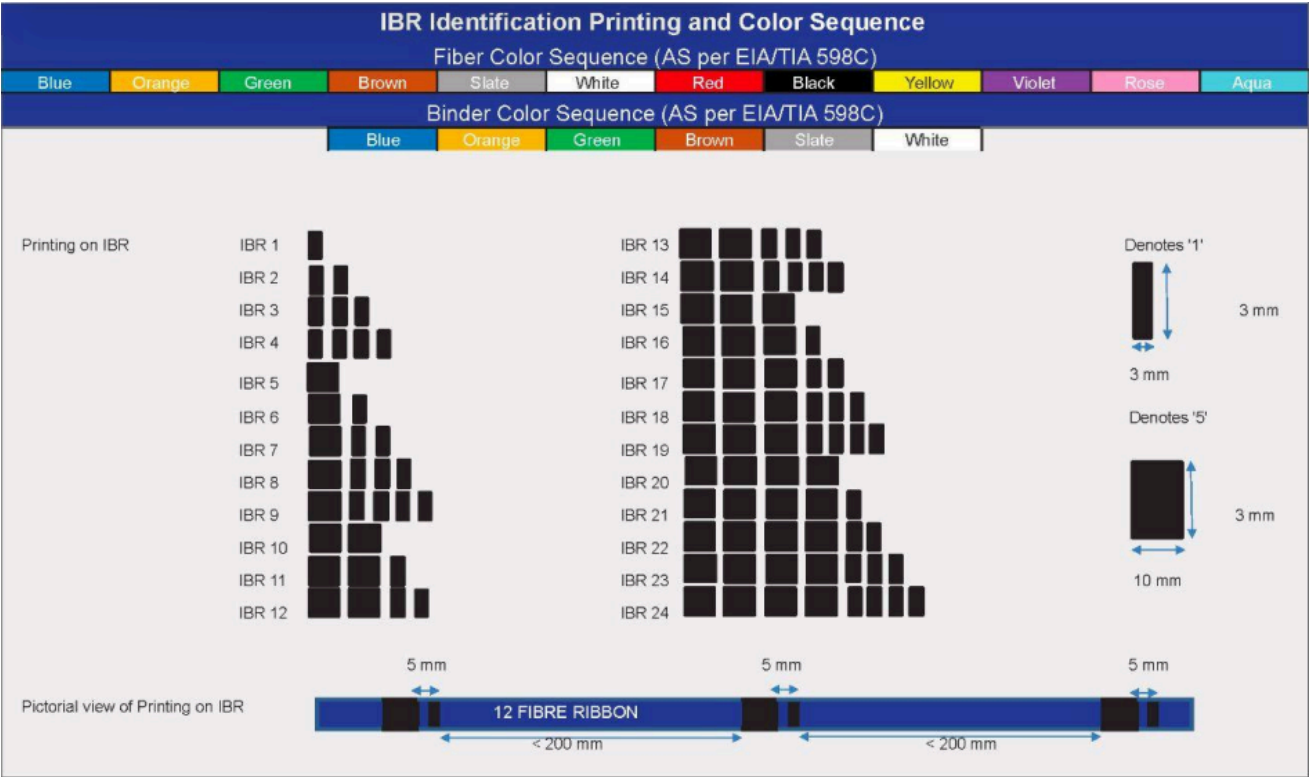
Celesta (IBR)

Intermittently Bonded Ribbon OFC

Single Sheath Duct



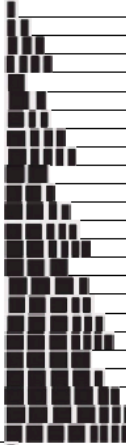
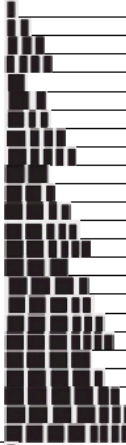
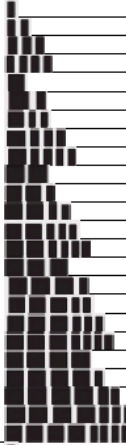
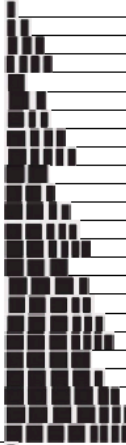
48F-576F



SPLICING TABLE

APPENDIX A

Multi-Loose Tube Cable			Uni-Tube Matrix Ribbon		Multi-tube Matrix Ribbon			IBR Ribbon Cable			
Port Number	Buffer Tube Color	Fiber Color	Ribbon Number	Fiber Color	Buffer Tube Color	Ribbon Number	Fiber Color	Buffer Tube Color	Binder Color	Ribbon Marking	Fiber Color
1	Blue	Blue	1	Blue	Blue	1	Blue	Blue	Blue		Blue
2		Orange		Orange			Orange				Orange
3		Green		Green			Green				Green
4		Brown		Brown			Brown				Brown
5		Slate		Slate			Slate				Slate
6		White		White			White				White
7		Red		Red			Red				Red
8		Black		Black			Black				Black
9		Yellow		Yellow			Yellow				Yellow
10		Violet		Violet			Violet				Violet
11	Orange	Rose	2	Rose		2	Rose				Rose
12		Aqua		Aqua			Aqua				Aqua
13		Blue		Blue			Blue				Blue
14		Orange		Orange			Orange				Orange
15		Green		Green			Green				Green
16		Brown		Brown			Brown				Brown
17		Slate		Slate			Slate				Slate
18		White		White			White				White
19		Red		Red			Red				Red
20		Black		Black			Black				Black
21	Green	Yellow	3	Yellow		3	Yellow		Green		Yellow
22		Violet		Violet			Violet				Violet
23		Rose		Rose			Rose				Rose
24		Aqua		Aqua			Aqua				Aqua
25		Blue		Blue			Blue				Blue
26		Orange		Orange			Orange				Orange
27		Green		Green			Green				Green
28		Brown		Brown			Brown				Brown
29		Slate		Slate			Slate				Slate
30		White		White			White				White
31	Brown	Red	4	Red		4	Red				Red
32		Black		Black			Black				Black
33		Yellow		Yellow			Yellow				Yellow
34		Violet		Violet			Violet				Violet
35		Rose		Rose			Rose				Rose
36		Aqua		Aqua			Aqua				Aqua
37		Blue		Blue			Blue				Blue
38		Orange		Orange			Orange				Orange
39		Green		Green			Green				Green
40		Brown		Brown			Brown				Brown
41		Slate		Slate			Slate				Slate
42		White		White			White				White
43		Red		Red			Red				Red
44		Black		Black			Black				Black
45		Yellow		Yellow			Yellow				Yellow
46		Violet		Violet			Violet				Violet
47		Rose		Rose			Rose				Rose
48		Aqua		Aqua			Aqua				Aqua

Port Number	Buffer Tube Color	Fiber Color		Ribbon Number	Fiber Color		Buffer Tube Color	Ribbon Number	Fiber Color		Buffer Tube Color	Binder Color	Ribbon Marking	Fiber Color				
49	Slate	Blue		5	Blue		Blue	5	Blue		Orange	Blue		Blue				
50		Orange			Orange				Orange					Orange				
51		Green			Green				Green					Green				
52		Brown			Brown				Brown					Brown				
53		Slate			Slate				Slate					Slate				
54		White			White				White					White				
55		Red			Red				Red					Red				
56		Black			Black				Black					Black				
57		Yellow			Yellow				Yellow					Yellow				
58		Violet			Violet				Violet					Violet				
59	Rose		Rose		Rose			Rose										
60	Aqua		Aqua		Aqua			Aqua										
61	White	Blue		6	Blue			6	Blue					Blue	Orange		Blue	
62		Orange			Orange				Orange								Orange	
63		Green			Green				Green								Green	
64		Brown			Brown				Brown								Brown	
65		Slate			Slate				Slate								Slate	
66		White			White				White								White	
67		Red			Red				Red								Red	
68		Black			Black				Black								Black	
69		Yellow			Yellow		Yellow			Yellow								
70		Violet			Violet		Violet			Violet								
71	Rose		Rose		Rose		Rose											
72	Aqua		Aqua		Aqua		Aqua											
73	Red	Blue		7	Blue		7	Blue		Blue		Green					Blue	
74		Orange			Orange			Orange									Orange	
75		Green			Green			Green									Green	
76		Brown			Brown			Brown									Brown	
77		Slate			Slate			Slate									Slate	
78		White			White			White									White	
79		Red			Red			Red									Red	
80		Black			Black			Black									Black	
81		Yellow			Yellow			Yellow							Yellow			
82		Violet			Violet			Violet							Violet			
83	Rose		Rose		Rose		Rose											
84	Aqua		Aqua		Aqua		Aqua											
85	Black	Blue		8	Blue		8	Blue		Orange					Green			Blue
86		Orange			Orange			Orange										Orange
87		Green			Green			Green										Green
88		Brown			Brown			Brown										Brown
89		Slate			Slate			Slate										Slate
90		White			White			White										White
91		Red			Red			Red										Red
92		Black			Black			Black										Black
93		Yellow			Yellow			Yellow				Yellow						
94		Violet			Violet			Violet				Violet						
95	Rose		Rose		Rose		Rose											
96	Aqua		Aqua		Aqua		Aqua											

Port Number	Buffer Tube Color	Fiber Color		Ribbon Number	Fiber Color		Buffer Tube Color	Ribbon Number	Fiber Color		Buffer Tube Color	Binder Color	Ribbon Marking	Fiber Color
97	Yellow	Blue		9	Blue		Orange	9	Blue		Brown	Blue		Blue
98		Orange			Orange				Orange					Orange
99		Green			Green				Green					Green
100		Brown			Brown				Brown					Brown
101		Slate			Slate				Slate					Slate
102		White			White				White					White
103		Red			Red				Red					Red
104		Black			Black				Black					Black
105		Yellow			Yellow				Yellow					Yellow
106		Violet			Violet				Violet					Violet
107	Violet	Rose		10	Rose			10	Rose			Blue		Rose
108		Aqua			Aqua				Aqua					Aqua
109		Blue			Blue				Blue					Blue
110		Orange			Orange				Orange					Orange
111		Green			Green				Green					Green
112		Brown			Brown				Brown					Brown
113		Slate			Slate				Slate					Slate
114		White			White				White					White
115		Red			Red				Red					Red
116		Black			Black				Black					Black
117	Rose	Yellow		11	Yellow			11	Yellow			Green		Yellow
118		Violet			Violet				Violet					Violet
119		Rose			Rose				Rose					Rose
120		Aqua			Aqua				Aqua					Aqua
121		Blue			Blue				Blue					Blue
122		Orange			Orange				Orange					Orange
123		Green			Green				Green					Green
124		Brown			Brown				Brown					Brown
125		Slate			Slate				Slate					Slate
126		White			White				White					White
127	Aqua	Red		12	Red			12	Red					Red
128		Black			Black				Black					Black
129		Yellow			Yellow				Yellow					Yellow
130		Violet			Violet				Violet					Violet
131		Rose			Rose				Rose					Rose
132		Aqua			Aqua				Aqua					Aqua
133		Blue			Blue				Blue					Blue
134		Orange			Orange				Orange					Orange
135		Green			Green				Green					Green
136		Brown			Brown				Brown					Brown
137		Slate			Slate				Slate					Slate
138		White			White				White					White
139		Red			Red				Red					Red
140		Black			Black				Black					Black
141		Yellow			Yellow				Yellow					Yellow
142		Violet			Violet				Violet					Violet
143		Rose			Rose				Rose					Rose
144		Aqua			Aqua				Aqua					Aqua

Port Number	Buffer Tube Color	Fiber Color					Buffer Tube Color	Ribbon Number	Fiber Color			Buffer Tube Color	Binder Color	Ribbon Marking	Fiber Color
145	Blue	Blue					Green	13	Blue			Slate	Blue		Blue
146		Orange							Orange						Orange
147		Green							Green						Green
148		Brown							Brown						Brown
149		Slate							Slate						Slate
150		White							White						White
151		Red							Red						Red
152		Black							Black						Black
153		Yellow							Yellow						Yellow
154		Violet							Violet						Violet
155	Orange	Rose					Green	14	Rose			Slate	Blue		Rose
156		Aqua							Aqua						Aqua
157		Blue							Blue						Blue
158		Orange							Orange						Orange
159		Green							Green						Green
160		Brown							Brown						Brown
161		Slate							Slate						Slate
162		White							White						White
163		Red							Red						Red
164		Black							Black						Black
165	Green	Yellow					Green	15	Yellow			Slate	Green		Yellow
166		Violet							Violet						Violet
167		Rose							Rose						Rose
168		Aqua							Aqua						Aqua
169		Blue							Blue						Blue
170		Orange							Orange						Orange
171		Green							Green						Green
172		Brown							Brown						Brown
173		Slate							Slate						Slate
174		White							White						White
175	Brown	Red					Green	16	Red			Slate	Green		Red
176		Black							Black						Black
177		Yellow							Yellow						Yellow
178		Violet							Violet						Violet
179		Rose							Rose						Rose
180		Aqua							Aqua						Aqua
181		Blue							Blue						Blue
182		Orange							Orange						Orange
183		Green							Green						Green
184		Brown							Brown						Brown
185		Slate							Slate						Slate
186		White							White						White
187		Red							Red						Red
188		Black							Black						Black
189		Yellow							Yellow						Yellow
190		Violet							Violet						Violet
191		Rose							Rose						Rose
192		Aqua							Aqua						Aqua

Port Number	Buffer Tube Color	Fiber Color					Buffer Tube Color	Ribbon Number	Fiber Color		Buffer Tube Color	Binder Color	Ribbon Marking	Fiber Color	
193	Slate	Blue					Green	17	Blue		White	Blue		Blue	
194		Orange							Orange					Orange	
195		Green							Green					Green	
196		Brown							Brown					Brown	
197		Slate							Slate					Slate	
198		White							White					White	
199		Red							Red					Red	
200		Black							Black					Black	
201		Yellow							Yellow					Yellow	
202		Violet							Violet					Violet	
203	Rose					Rose		Rose							
204	Aqua					Aqua		Aqua							
205	White	Blue					Green	18	Blue		White	Blue		Blue	
206		Orange							Orange					Orange	
207		Green							Green					Green	
208		Brown							Brown					Brown	
209		Slate							Slate					Slate	
210		White							White					White	
211		Red							Red					Red	
212		Black							Black					Black	
213		Yellow							Yellow					Yellow	
214		Violet							Violet					Violet	
215	Rose					Rose		Rose							
216	Aqua					Aqua		Aqua							
217	Red	Blue					Brown	19	Blue		White		Blue		
218		Orange							Orange				Orange		
219		Green							Green				Green		
220		Brown							Brown				Brown		
221		Slate							Slate				Slate		
222		White							White				White		
223		Red							Red				Red		
224		Black							Black				Black		
225		Yellow							Yellow				Yellow		
226		Violet							Violet				Violet		
227	Rose					Rose		Rose							
228	Aqua					Aqua		Aqua							
229	Black	Blue					Brown	20	Blue		White		Green		Blue
230		Orange							Orange						Orange
231		Green							Green						Green
232		Brown							Brown						Brown
233		Slate							Slate						Slate
234		White							White						White
235		Red							Red						Red
236		Black							Black						Black
237		Yellow							Yellow						Yellow
238		Violet							Violet						Violet
239	Rose					Rose				Rose					
240	Aqua					Aqua				Aqua					

Port Number	Buffer Tube Color	Fiber Color					Buffer Tube Color	Ribbon Number	Fiber Color		Buffer Tube Color	Binder Color	Ribbon Marking	Fiber Color
241	Yellow	Blue					Brown	21	Blue		Red	Blue		Blue
242		Orange							Orange					Orange
243		Green							Green					Green
244		Brown							Brown					Brown
245		Slate							Slate					Slate
246		White							White					White
247		Red							Red					Red
248		Black							Black					Black
249		Yellow							Yellow					Yellow
250		Violet							Violet					Violet
251	Rose					Rose			Rose					
252	Aqua					Aqua			Aqua					
253	Blue					Blue			Blue					
254	Orange					Orange			Orange					
255	Green					Green			Green					
256	Brown					Brown			Brown					
257	Slate					Slate			Slate					
258	White					White			White					
259	Red					Red			Red					
260	Black					Black			Black					
261	Yellow					Yellow			Yellow					
262	Violet					Violet			Violet					
263	Rose					Rose			Rose					
264	Aqua					Aqua			Aqua					
265	Blue					Blue			Blue					
266	Orange					Orange			Orange					
267	Green					Green			Green					
268	Brown					Brown			Brown					
269	Slate					Slate			Slate					
270	White					White			White					
271	Red					Red		Red						
272	Black					Black		Black						
273	Yellow					Yellow		Yellow						
274	Violet					Violet		Violet						
275	Rose					Rose		Rose						
276	Aqua					Aqua		Aqua						
277	Blue					Blue		Blue						
278	Orange					Orange		Orange						
279	Green					Green		Green						
280	Brown					Brown		Brown						
281	Slate					Slate		Slate						
282	White					White		White						
283	Red					Red		Red						
284	Black					Black		Black						
285	Yellow					Yellow		Yellow						
286	Violet					Violet		Violet						
287	Rose					Rose		Rose						
288	Aqua					Aqua		Aqua						