

RICH Wiring

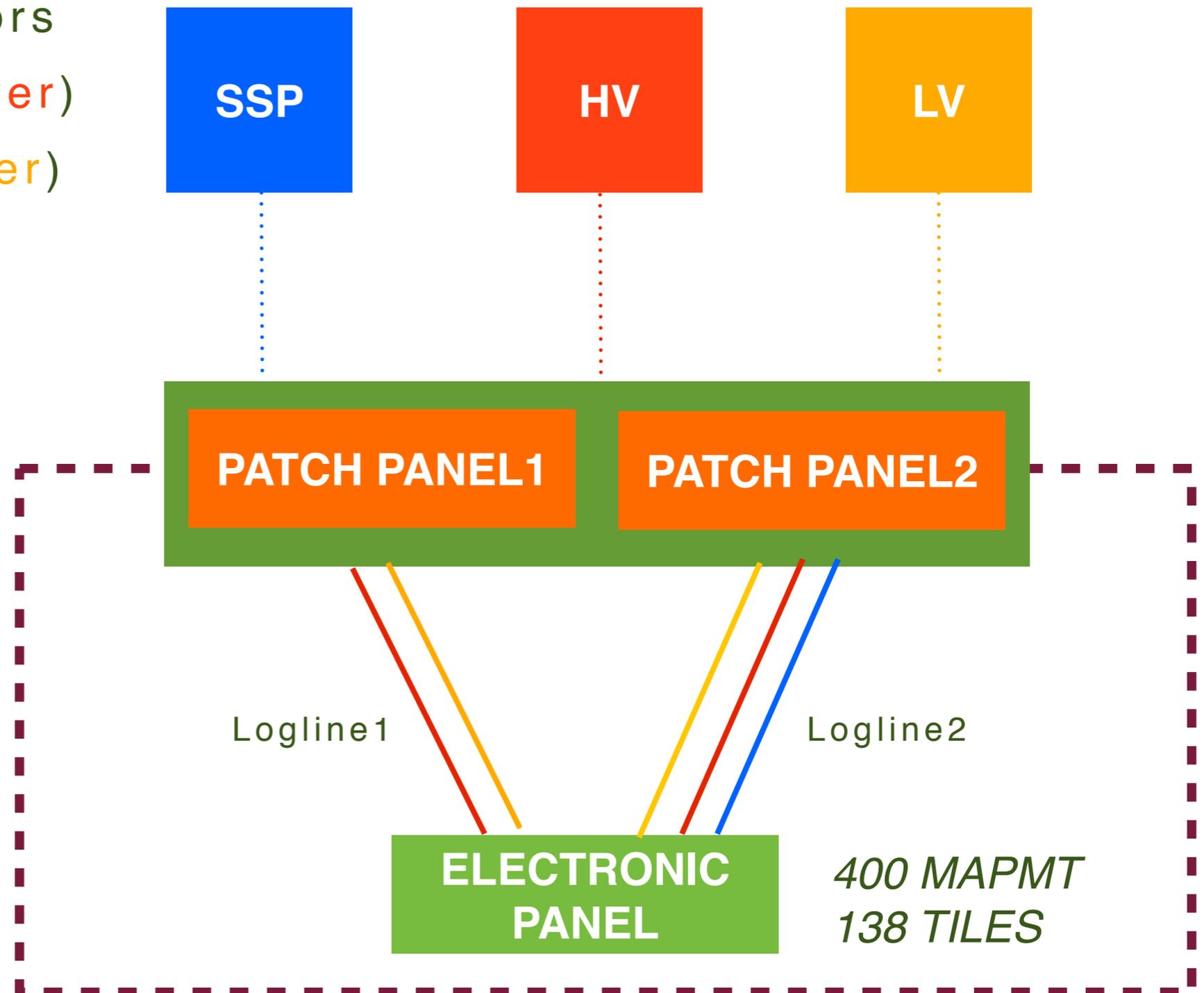
M.Turisini

RICH Phone Meeting, 2015 January 16th

Intro

Cables and Connectors

- **H**igh **V**oltage (**power**)
- **L**ow **V**oltage (**power**)
- **O**ptical (**data**)



NOTE:
in next slides the text
underlined is a web link

RICH MODULE
WIRING CONCEPT

High Voltage

Cable: RG58

Board Header: SAMTEC IPL1

Patch Panel Header: SHV

Diameter: 5 mm²

Number: 138

Note: each cable feeds 1 tile (2 or 3 MAPMT)



Low Voltage

Cable: AlphaWire 58124

Board Header: Molex

Patch Panel Header: **to be defined**

Diameter: 4 mm²

Number: 70 (assuming multicore 2)

Note: each cable feeds 2 tiles



Optical Fiber

Cable: MTP-LC Fiber Optical 12 Strand, 50/125 um, OM3

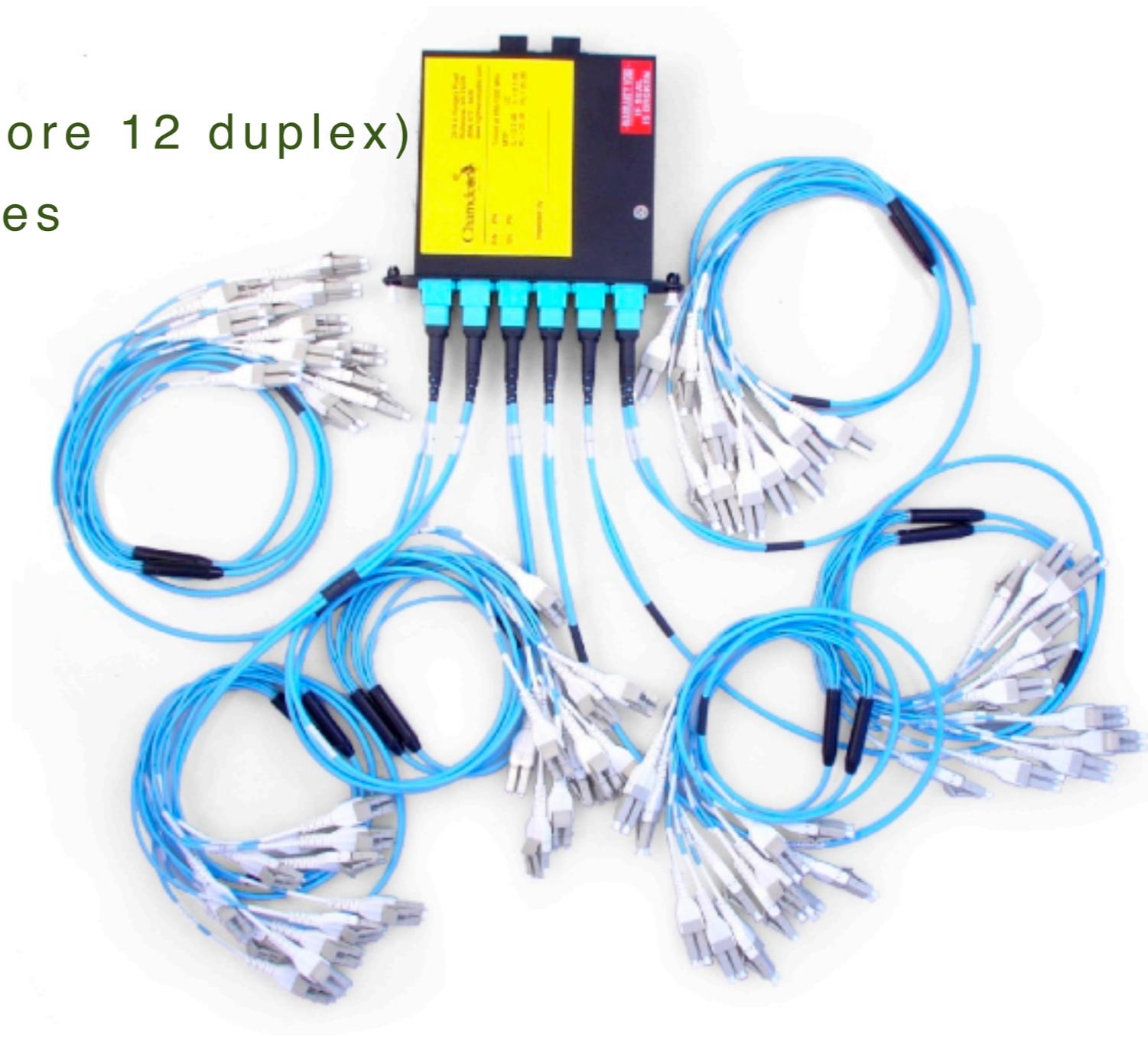
Board Header: LC Duplex

Patch Panel Header: MTP

Diameter: 4.5 x 7.4 mm²

Number: 12 (assuming multicore 12 duplex)

Note: each cable feeds 12 tiles



Two Loglines

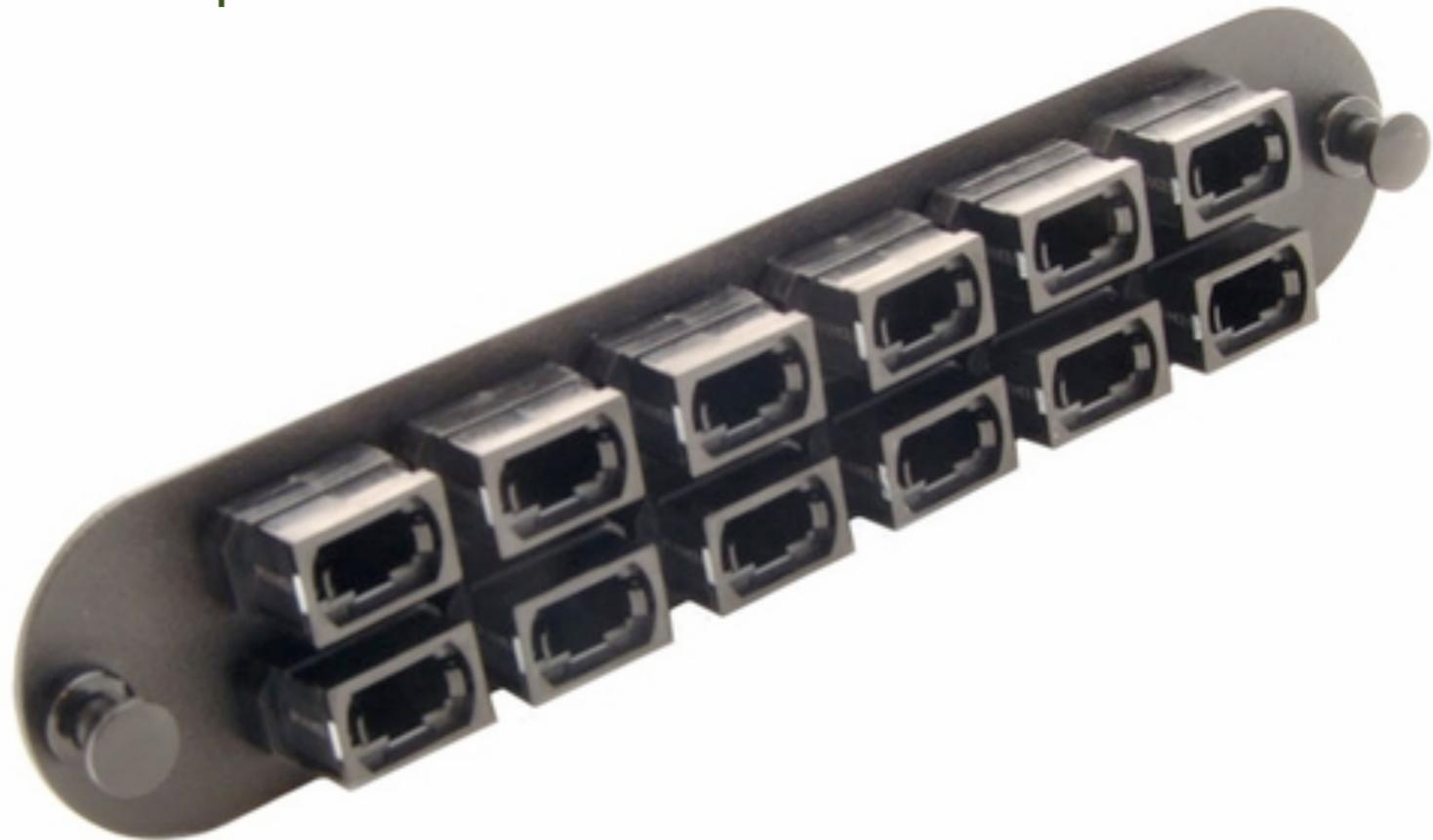
HV	5mm x 5mm x 138	=	3450 mm ²	
LV	4mm x 4mm x 70	=	1120 mm ²	~5000 mm²
OPTIVAL	4.5mm x 7.4mm x 12	=	400 mm ²	

Minimum logline area = 25 cm²

Cables should be fastened to the framework to reduce weight

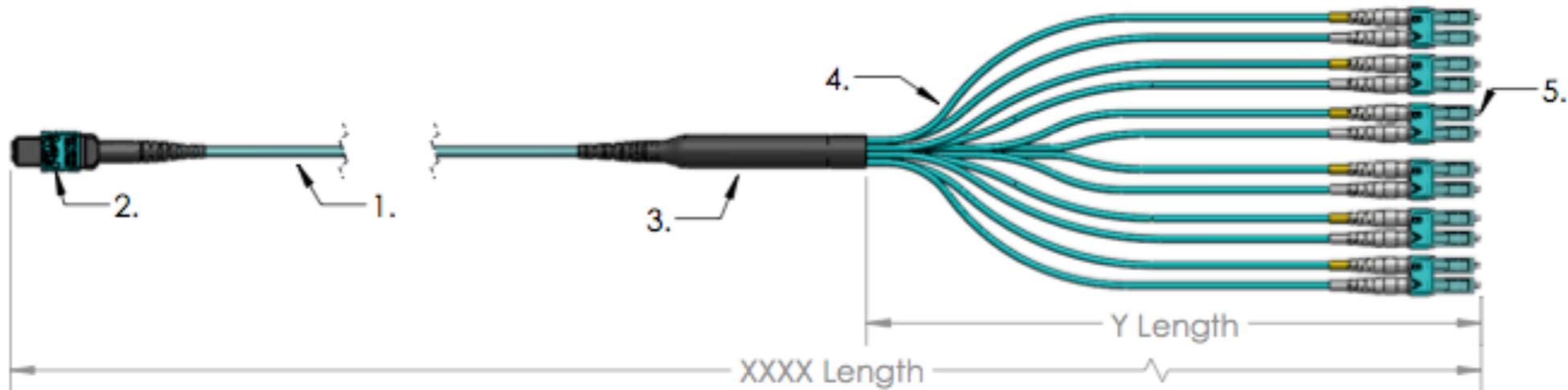
Patch Panel

HV	SHV panel mount
LV	to be defined
OPTICAL	MTP panel adapter

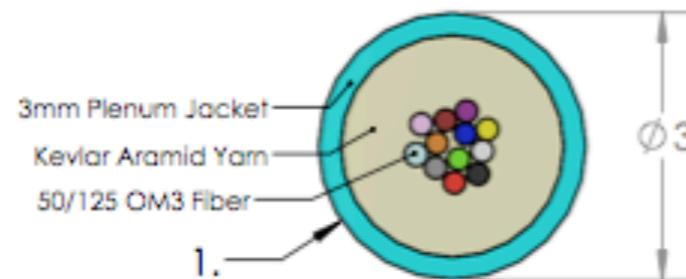
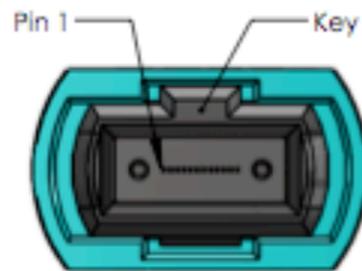


Backup slides

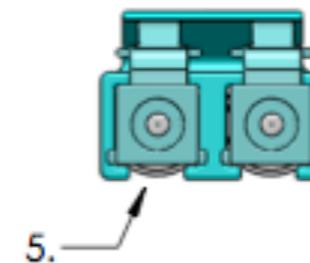
Optical Fiber: MTP-LC Cables details



Side A



Pin	Color	Pin
1	Blue	2
2	Orange	1
3	Green	4
4	Brown	3
5	Slate	6
6	White	5
7	Red	8
8	Black	7
9	Yellow	10
10	Violet	9
11	Rose	12
12	Aqua	11



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	SP012L30100B-BIF	AFL Microcore, 12 Strand, OFNP, Multimode 50/125 10Gig OM3	XXX
2	819B/MTF-12MM7-02	MTP, Round Female Housing, Multimode, 12 Fiber Ferrule	2
3	LW-FAN-Body-Syringe	TDS Fanout Body	1
4	FO0FDX2NRA-FM	DX Zipcord/2.0mm Tubing, Aqua	Y
5	931-251-2XX	Senko LC Unibody MM 127um Premium Connector w/ Boot and Duplex Clip	12

Cable Description: 12 Fiber MultiMode 50/125, 10 Gig, (1 ea) MTP 12 /PC (Female) - (6 ea) LC /PC (Duplex), Flipped Polarity, XXXX Length, Plenum Jacket, Y Length Breakout

Length	Part Number
20 Feet	VFHP-012P0IN0020-X-F
20 Meters	VFHP-012P0IN0020M-X-F

General Characteristics of SP012L30100B-BIF	
Type	Multimode 50/125um OM3
Wavelength	850/1300
Operating Temperature	-0°C to +70°C
Installation Tension	50lbs (222 N)
Long term Tension	17 lbs (76N)
Installation Bend Radius	1.8 in (4.5 cm)
Long Term Bend Radius	1.2 in (3.0 cm)

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DRAWN	R. Jones	1/23/14
CHECKED	J. Taylor	1/23/14
ENG APPR.	R. Jones	1/23/14
MFG APPR.	J. Wolf	1/23/14
G.A.	J. Taylor	1/23/14

DIMENSIONS ARE IN METERS
TOLERANCES: +0.30M -0.0M
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL
FINISH

DO NOT SCALE DRAWING

Customer:

Cables Plus USA

5608 W. Marshall St.
Richmond, VA 23230

SIZE A	PART NUMBER: VFHP-012P0INXXXX-Y-F	REV 1
SCALE: NOT TO SCALE		SHEET 1 OF 1

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