

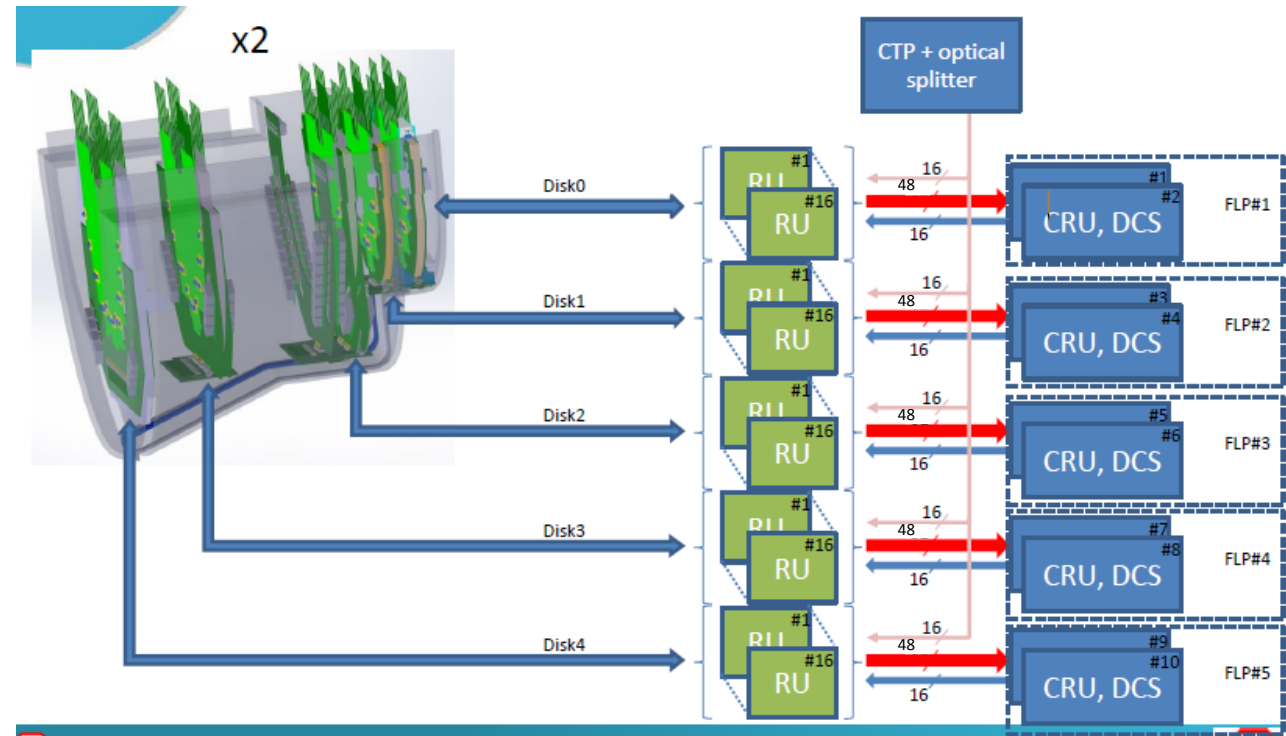
MFT fibers for Run 3&4

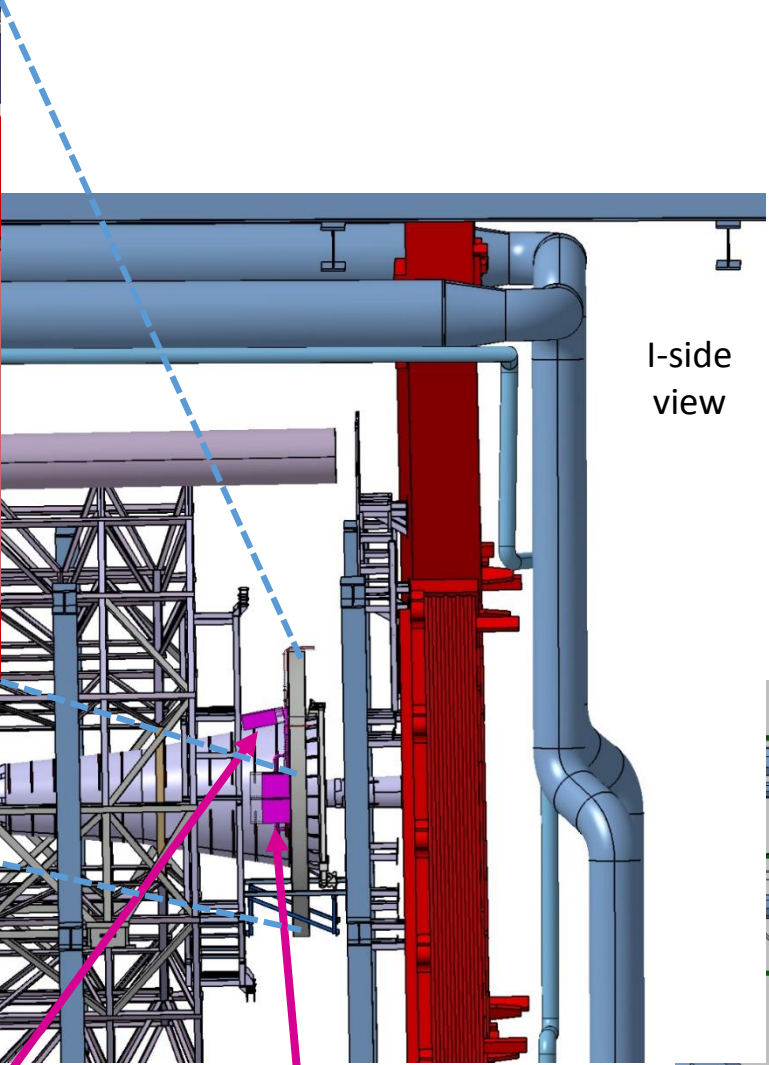
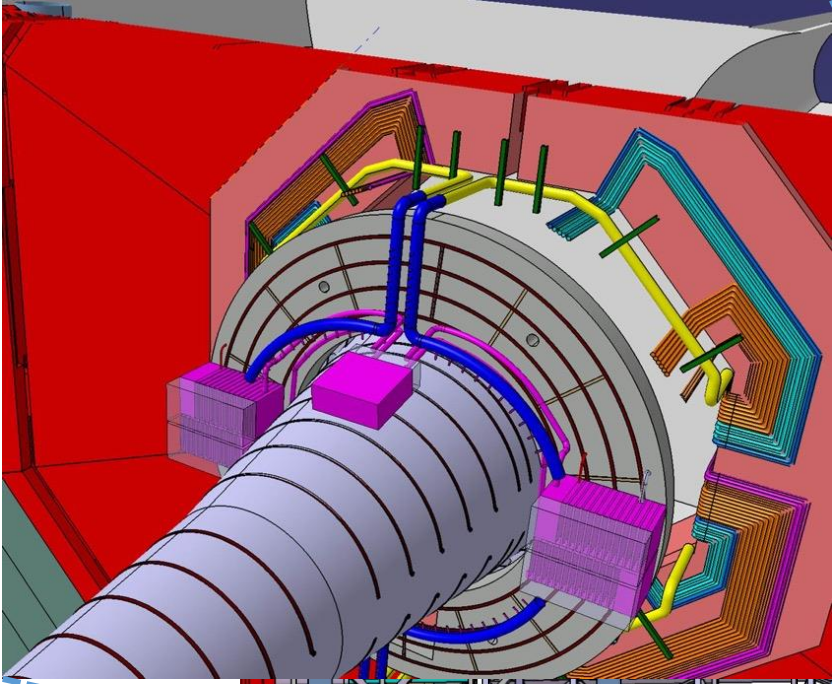
By Giuseppe Simonetti

ALICE-DAQ, O2-Project WG17

	Total Disk0 (Both sides)	Total Disk1 (Both sides)	Total Disk2 (Both sides)	Total Disk3 (Both sides)	Total Disk4 (Both sides)	Total MFT
Nbr RU	16	16	16	16	16	80
Nbr of dataLink to CRU	48	48	48	48	48	240
Nbr of Control link from CRU	16	16	16	16	16	80
Nbr of CTP trigger link	16	16	16	16	16	80

MFT



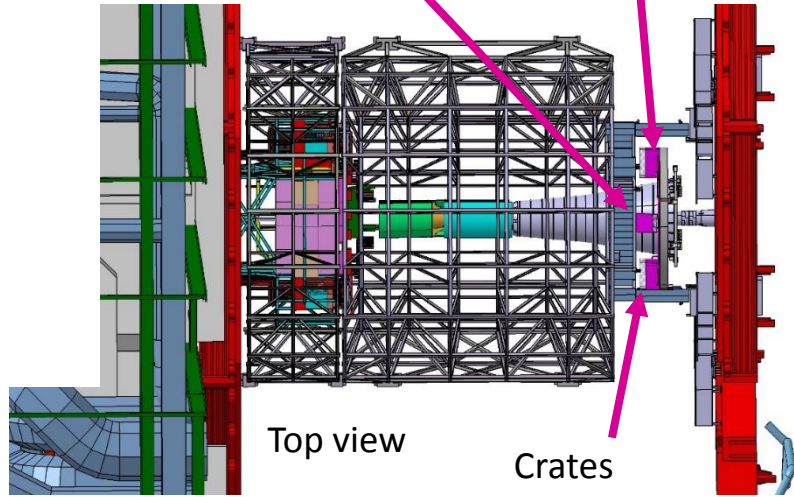


I-side view

C-side Absorber (MFT)

2x1U 19" Subrack

Crates O-side



Top view

Crates I-side

Fiber 2x1U subrack (C118A/B)

RU/trigger crates

Use 2x 1U 19" subracks (C118A, C118B)

DAQ/Ctrl/Trg Trunk cables in the PIT:

O-side path (70x144+7x48):

ITS-I (4x144), ITS-O (4x144)

TPC (52x144)-TOF (3x48) C-side

MFT (4x144) Absorber

TOF-A (2x48)

MCH (6x144)-MID (2x48) O-side

I-side path (68x144+9x48):

TRD (10x144) + CTP (3x48 + 1x48 SM)

TPC (52x144) A-side

TOF (1x48) A-side

MCH (6x144) I-side

MID (2x48) I-side

FIT (3x48)

GBTx/GPON cables:

In L3 (conventional cable):

MFT (1x24 LC-GBTx)

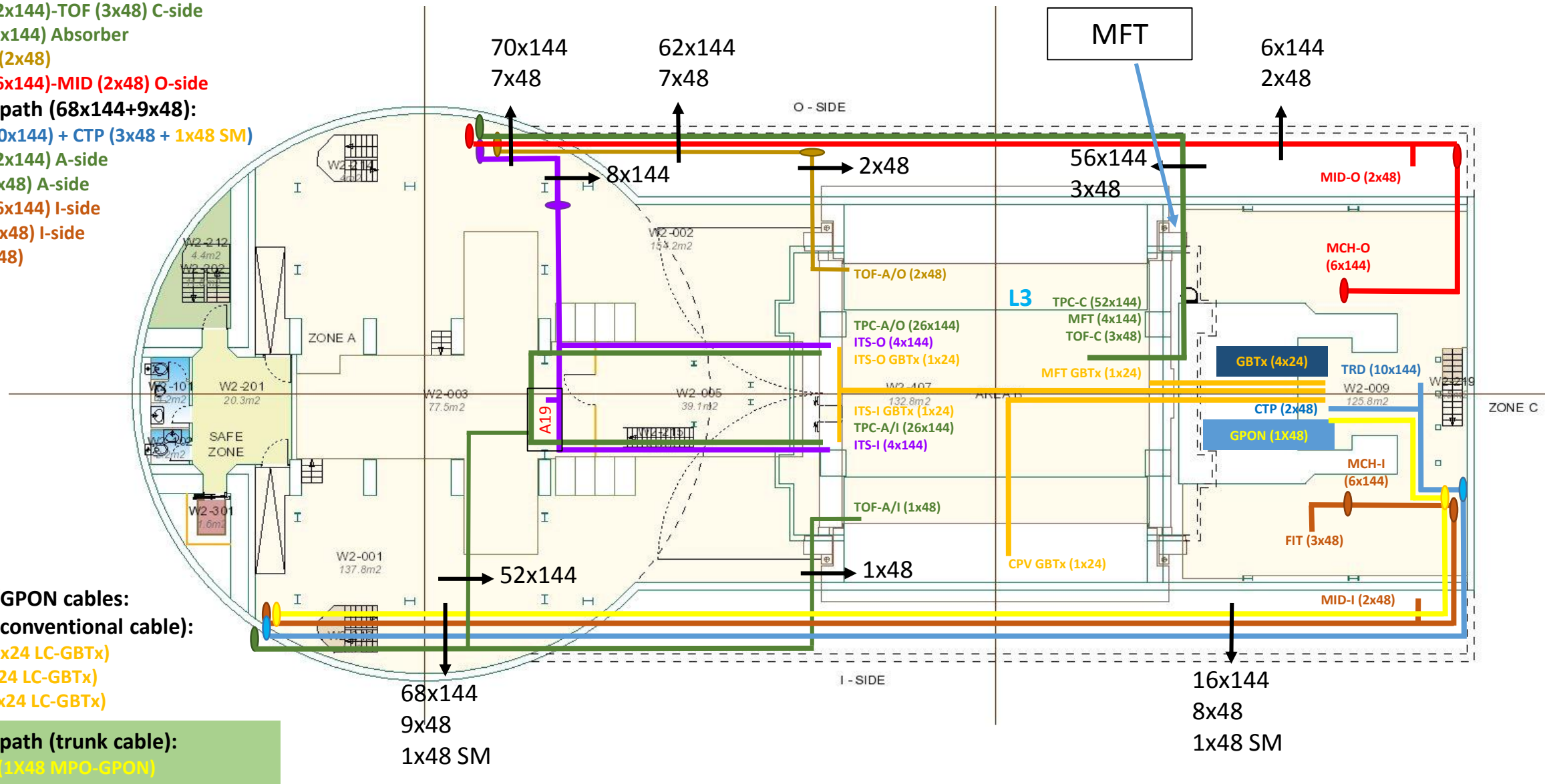
ITS (2x24 LC-GBTx)

CPV (1x24 LC-GBTx)

I-side path (trunk cable):

GPON (1x48 MPO-GPON)

Trunk cable paths in the PIT



Material and number of OM3 fibers for MFT (DAQ)

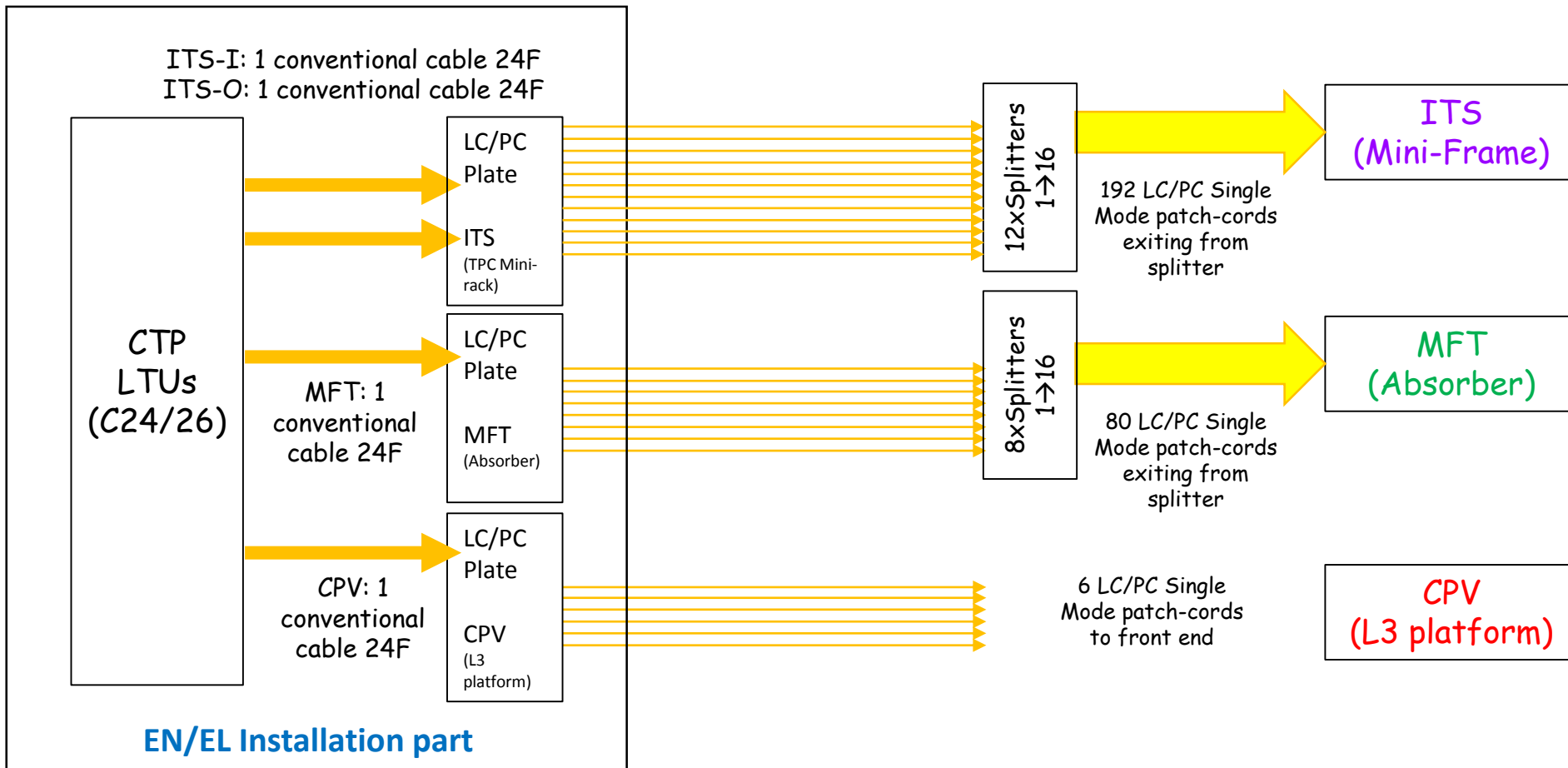
MFT	Length [m]	Q.ty	All Detector		
			C-side	Spare	Total
Disks		1	5		5
VME crates		4	4		4
Readout Units		16	80		80
DAQ Fibers		3	240		240
Ctrl Fibers		1	80		80
PSU (Power Supply Unit) fibers		4	16		16
Not used Fibers		1.2	96		96
Spare Fibers		1.8		144	144
Total Fibers		6	576		576
MPO-12LC patch-cords (Pit):					
30 cm fan-out included	5.0		28	7	35
Terminal plates 1U 12xMPO-MPO (Pit)			4		4
Sub-racks 1U (Pit)			2		2
Trunk cables of 144 fibers:					
Type A	114.0		3	1	4
Sub-racks 4U (CR1)			1		1
Terminal plates 3U 12xMPO-MPO (CR1)			3		3
Terminal plates 3U 2xMPO-24LC (CR1)			6		6
MPO-MPO patch-cords (CR1):					
base-12	5.0		20	5	25
MPO-12LC patch-cords (CR1):					
30 cm fan-out included	5.0		12	3	15
# CRUs			11		11

EN/EL installation

Direct trigger to ITS, MFT and CPV (GBTx)

LC/PC-LC/PC Single Mode fibers for GBTx standard: 2 conventional cables of 24 fibers for ITS (1 for I-side and 1 for O-side), 1 conventional cable of 24 fibers for MFT and 1 conventional cable of 24 fibers for CPV

The path is under evaluation



Material and number of Single Mode fibers for CTP GBTx

CTP GBTx Standard	Length [m]	MFT		
		Absorber	Spare	Total
GBT links		8		8
Passive splitters 1x16 VME size		8	1	9
GBT fibers		8	16	24
Total fibers		24		24
LC/PC-LC/PC patch cords (CTP-C24)	3.0	8	2	10
Terminal plate 3U 24LC/PC (CTP-C24)		1		1
Sub-racks 4U (Pit CTP-C24)		0		0
Conventional cables of 24 fibers:				
Single Mode (to be spliced)	30.0	1		1
Sub-racks 4U (Mini-Frame/L3)		0		0
Terminal plate 3U 24LC/PC (L3 platform)				
Terminal plate 1U 24LC/PC (Mini-Frame/Absorber)		1		1
LC/PC-LC/PC patch cords	5.0	8	2	10

EN/EL Installation part