

DUNE-SP

Interface Drawings Status

October 10th, 2019

KDZ

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Consortia to Consortia: SP-PDS to SP-APA

CONSORTIA TO CONSORTIA	EDMS	DRAWING NAME
SP-APA to SP-PDS	2088735	8760301 MOUNTING FOR PHOTON DETECTOR
SP-APA to SP-PDS	2088735	8760303 PD CABLES FOOT TUBE, UPPER
SP-APA to SP-PDS	2088735	8760304 PD CABLES FOOT TUBE, LOWER
SP-APA to SP-PDS	2088735	8760308 APA AND PD CABLES
SP-APA to SP-PDS	2088735	LIGHT OCCLUSION FROM GROUNDING MESH

First pass (sometimes second or third) has been created

We have what we need to start (inside the cryostat)

Will need to work with Jack and CERN team (outside the cryostat)

Consortia to Consortia: SP-APA to SP-TPC (aka CE)

CONSORTIA TO CONSORTIA	EDMS	DRAWING NAME
SP-APA to SP-TPC (aka CE)	2088736	8760300 MOUNTING FOR CE CABLES, UPPER
SP-APA to SP-TPC (aka CE)	2088736	8760302 MOUNTING FOR CE BOX
SP-APA to SP-TPC (aka CE)	2088736	8760305 MOUNTING FOR CE CABLES, LOWER
SP-APA to SP-TPC (aka CE)	2088736	8760309 INSTALLATION OF CE BOX
SP-APA to SP-TPC (aka CE)	2088736	CHANNEL ON BRACKET MOUNTED ON YOKE
SP-APA to SP-TPC (aka CE)	2088736	CHANNEL ON BRACKET
SP-APA to SP-TPC (aka CE)	2088736	8760450 APA, SHV AND FC TERMINATIONS

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Consortia to Consortia: SP-APA to SP-HV

CONSORTIA TO CONSORTIA	EDMS	DRAWING NAME
SP-APA to SP-HV	2088738	8760307 APA & HV INTERFACE
SP-APA to SP-HV	2088738	8760450 APA, SHV AND FC TERMINATIONS
SP-APA to SP-HV	2088738	APA & END WALL

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Consortia to Consortia: SP-PDS to SP-TPC (aka CE)

CONSORTIA TO CONSORTIA	EDMS	DRAWING NAME
SP-PDS to SP-TPC (aka CE)	2088720	8760451 PD CABLES IN TPC CABLE TRAY
SP-PDS to SP-TPC (aka CE)	2088720	8760453 PDS FLANGE TO TPC CROSS
SP-PDS to SP-TPC (aka CE)	2088720	8760454 PD CABLES IN CE CROSSING TUBE

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Consortia to Consortia: SP-PDS to SP-HV

CONSORTIA TO CONSORTIA	EDMS	DRAWING NAME
SP-PDS to SP-HV	2088721	8760452 MOUNTING OF DIFFUSING FLASHERS TO CPA
SP-PDS to SP-HV	2088721	ROUTING DIFFUSING FLASHER OPTICAL FIBER ALONG CPA
SP-PDS to SP-HV	2088721	POTENTIALLY MOUNTING WAVELENGTH-SHIFTING FOILS TO CPA

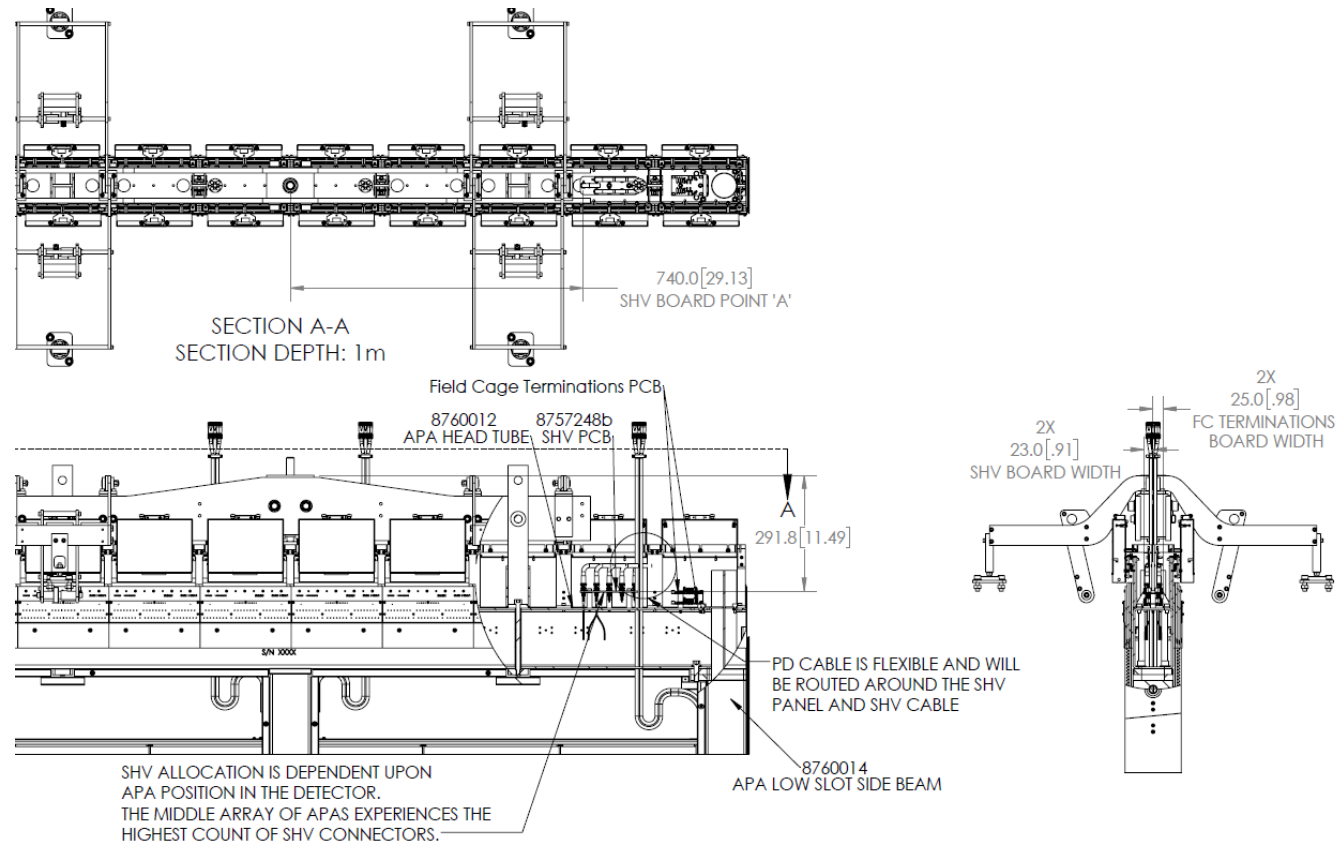
First pass (sometimes second or third) has been created

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Consortia to Consortia: SP-HV to SP-TPC (aka CE)

- During the collaboration meeting this interface was discussed.
- The FC terminations board will be moved off of the APA and onto a HV component
- Cables from CE to the FC terminations board are a mechanical interface



Consortia to Consortia: SP-HV to SP-TPC (aka CE)

CONSORTIA TO CONSORTIA	EDMS	DRAWING NAME
SP HV to SP-TPC (aka CE)	2088706	TPC Cable connected to FC Terminations

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Consortia to Facility: Inside the Cryostat

CONSORTIA TO FACILITY	EDMS	DRAWING NAME
SP-APA to Facility	2145161	8760306 UPPER APA, DETECTOR SUPPORT SYSTEM
SP-APA to Facility	2145161	APA PITCH AND POSITION IN CRYOSTAT
SP-APA to Facility	2145161	APA POSITION RELATIVE TO CRYOGENICS
SP-TPC to Facility	2145163	TPC CABLE TRAY ATTACHED TO DSS
SP-TPC to Facility	2145163	TPC CROSS SHAPED SPOOL PIECE TO CRYOSTAT PENETRATION
SP-TPC to Facility	2145163	TPC COMPONENTS SUBMERGED IN LAr AND IN ULLAGE
HV to Facility	2145170	END WALL MOUNTING TO DSS
HV to Facility	2145170	END WALL POSITION IN CRYOSTAT
HV to Facility	2145170	CPA MOUNTING TO DSS
HV to Facility	2145170	CPA PITCH AND POSITION IN CRYOSTAT
HV to Facility	2145170	GROUND PLANE MOUNTING TO DSS
HV to Facility	2145170	GROUND PLANE PITCH AND POSITION IN CRYOSTAT
HV to Facility	2145170	HIGH VOLTAGE FEED THROUGH TO CRYOSTAT PENETRATION
CISC to Facility	2145174	STATIC T-GRADIENT MONITORS MOUNTING IN CRYOSTAT
CISC to Facility	2145174	STATIC T-GRADIENT MONITORS ROUTING THROUGH CRYOSTAT PENETRATIONS
CISC to Facility	2145174	DYNAMIC T-GRADIENT MONITORS MOUNTING IN CRYOSTAT
CISC to Facility	2145174	DYNAMIC T-GRADIENT MONITORS ROUTING THROUGH CRYOSTAT PENETRATIONS
CISC to Facility	2145174	PURITY MONITORS MOUNTING IN CRYOSTAT
CISC to Facility	2145174	PURITY MONITORS ROUTING THROUGH CRYOSTAT PENETRATIONS

Discussions and Action Items

- Update 8760452 mounting and routing and send to TLs
- Log drawing notes
- Interface drawings are ready and available to facilitate the validation work to happen at BNL
- C to C interfaces that were validated last week at Ash River
 - Some lessons were learned and will be carried forward.