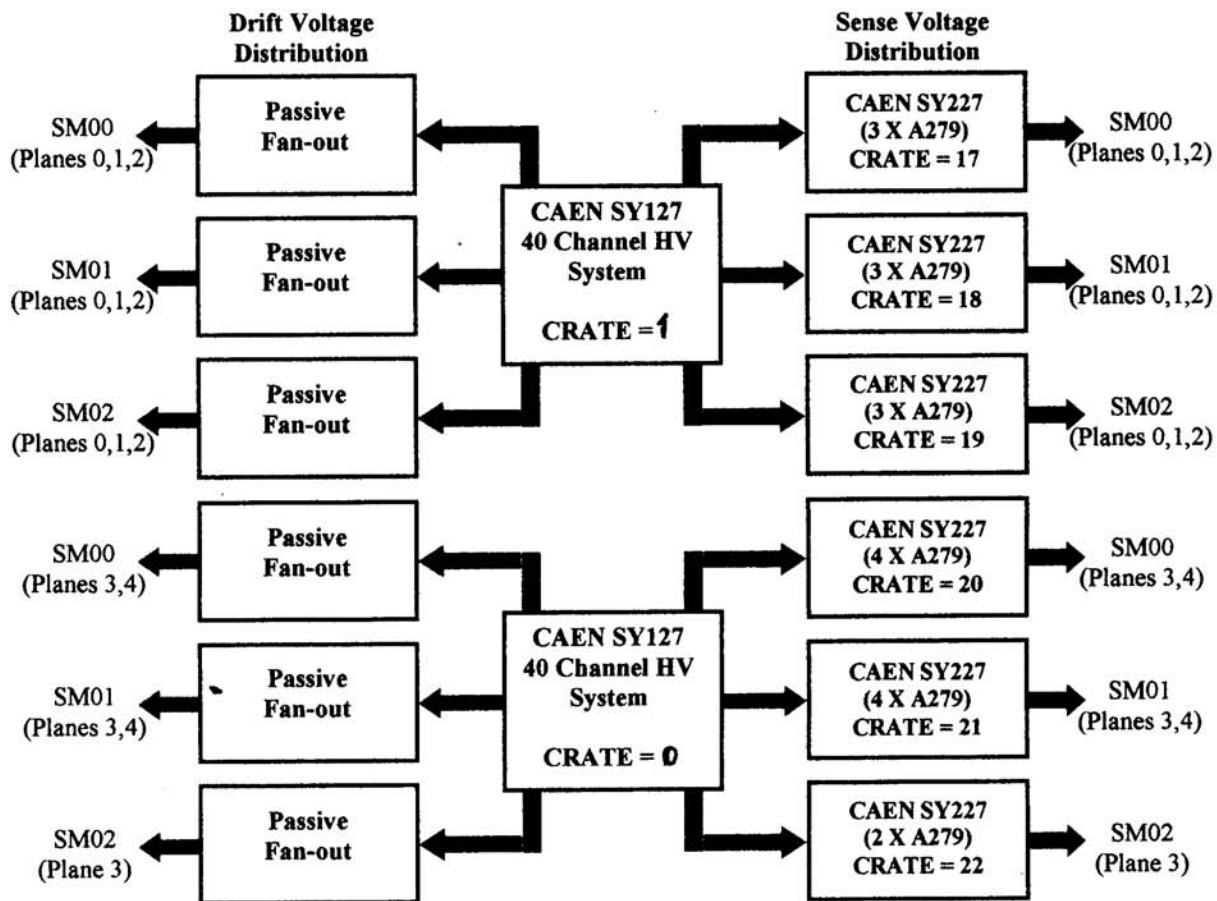


H1 Forward Tracker High Voltage Specification

1. General Layout



Comments :-

- Each SY127 crate contains the following HV modules :-

Slot1	A333P	Centre Strip
Slot2	A333N	Drift Strip 1
Slot3	A333N	Drift Strip 2
Slot4	A333N	Drift Strip 3
Slot5	A333N	Drift Strip 4
Slot6	A333N	Cathode
Slot7	A333P	Sense Wires
Slot8	A333P	Sense Wires
Slot9	A333P	Sense Wires

Note that the A334N/P can be substituted for the A333N/P where appropriate.

- The CAEN SY227 uses the A279 SHV 16 channel boards.

2. HV States

ON :- as per standard definition

OFF :- as per standard definition

STBY :- The standby state differs from the standard definition in that

a) the **Sense Wires** are set to a **REDUCED** voltage.

b) the **Drift Strips** remain at **FULL** voltage.

3. CAEN SY127 Configuration

SY127 Crate 1

	Von	Vstby	Ion	Istby	RUP	RDV/	TRIP	COMMENT	SY227 Connection
CH00	800	800	50	50	20	20	9999	C/S [P0,P1,P2] SM00	
CH01	800	800	50	50	20	20	9999	C/S [P0,P1,P2] SM01	
CH02	800	800	50	50	20	20	9999	C/S [P0,P1,P2] SM02	
CH03	*	*	*	*	*	*	*	SPARE	
CH04	200	200	50	50	5	5	9999	D1 [P0,P1,P2] SM00	
CH05	200	200	50	50	5	5	9999	D1 [P0,P1,P2] SM01	
CH06	200	200	50	50	5	5	9999	D1 [P0,P1,P2] SM02	
CH07	*	*	*	*	*	*	*	SPARE	
CH08	800	800	50	50	20	20	9999	D2 [P0,P1,P2] SM00	
CH09	800	800	50	50	20	20	9999	D2 [P0,P1,P2] SM01	
CH10	800	800	50	50	20	20	9999	D2 [P0,P1,P2] SM02	
CH11	*	*	*	*	*	*	*	SPARE	
CH12	1460	1460	50	50	37	37	9999	D3 [P0,P1,P2] SM00	
CH13	1460	1460	50	50	37	37	9999	D3 [P0,P1,P2] SM01	
CH14	1460	1460	50	50	37	37	9999	D3 [P0,P1,P2] SM02	
CH15	*	*	*	*	*	*	*	SPARE	
CH16	2000	2000	50	50	50	50	9999	D4 [P0,P1,P2] SM00	
CH17	2000	2000	50	50	50	50	9999	D4 [P0,P1,P2] SM01	
CH18	2000	2000	50	50	50	50	9999	D4 P0,P1,P2 SM02	
CH19	*	*	*	*	*	*	*	SPARE	
CH20	2400	2400	128	50	60	60	9999	K [P0,P1,P2] SM00	
CH21	2400	2400	128	50	60	60	9999	K [P0,P1,P2] SM01	
CH22	2400	2400	128	50	60	60	9999	K [P0,P1,P2] SM02	
CH23	*	*	*	*	*	*	*	SPARE	
CH24	1550	200	50	30	10	50	20	S [P0] SM00	Crate 17, Slot 0
CH25	1550	200	50	30	10	50	20	S [P1] SM00	Crate 17, Slot 1
CH26	1550	200	50	30	10	50	20	S [P2] SM00	Crate 17, Slot 2
CH27	*	*	*	*	*	*	*	SPARE	
CH28	1550	200	50	30	10	50	20	S [P0] SM01	Crate 18, Slot 0
CH29	1550	200	50	30	10	50	20	S [P1] SM01	Crate 18, Slot 1
CH30	1550	200	50	30	10	50	20	S [P2] SM01	Crate 18, Slot 2
CH31	*	*	*	*	*	*	*	SPARE	
CH32	1550	200	50	30	10	50	20	S [P0] SM02	Crate 19, Slot 0
CH33	1550	200	50	30	10	50	20	S [P1] SM02	Crate 19, Slot 1
CH34	1550	200	50	30	10	50	20	S [P2] SM02	Crate 19, Slot 2
CH35	1550	750	10	10	10	10	10	MONITOR	

SY127 Crate D

	Von	Vstby	Ion	Istby	RUP	RDW	TRIP	COMMENT	SY227 Connection
CH00	800	800	50	50	20	20	9999	C/S [P3,P4] SM00	
CH01	800	800	50	50	20	20	9999	C/S [P3,P4] SM01	
CH02	800	800	50	50	20	20	9999	C/S [P3] SM02	
CH03	*	*	*	*	*	*	*	SPARE	
CH04	200	200	50	50	5	5	9999	D1 [P3,P4] SM00	
CH05	200	200	50	50	5	5	9999	D1 [P3,P4] SM01	
CH06	200	200	50	50	5	5	9999	D1 [P3] SM02	
CH07	*	*	*	*	*	*	*	SPARE	
CH08	800	800	50	50	20	20	9999	D2 [P3,P4] SM00	
CH09	800	800	50	50	20	20	9999	D2 [P3,P4] SM01	
CH10	800	800	50	50	20	20	9999	D2 [P3] SM02	
CH11	*	*	*	*	*	*	*	SPARE	
CH12	1460	1460	50	50	37	37	9999	D3 [P3,P4] SM00	
CH13	1460	1460	50	50	37	37	9999	D3 [P3,P4] SM01	
CH14	1460	1460	50	50	37	37	9999	D3 [P3] SM02	
CH15	*	*	*	*	*	*	*	SPARE	
CH16	2000	2000	50	50	50	50	9999	D4 [P3,P4] SM00	
CH17	2000	2000	50	50	50	50	9999	D4 [P3,P4] SM01	
CH18	2000	2000	50	50	50	50	9999	D4 [P3] SM02	
CH19	*	*	*	*	*	*	*	SPARE	
CH20	2400	2400	128	50	60	60	9999	K [P3,P4] SM00	
CH21	2400	2400	128	50	60	60	9999	K [P3,P4] SM01	
CH22	2400	2400	128	50	60	60	9999	K [P3] SM02	
CH23	*	*	*	*	*	*	*	SPARE	
CH24	1550	200	50	30	10	50	20	S [P3,C00..C13] SM00	Crate 20,Slot 0
CH25	1550	200	50	30	10	50	20	S [P3,C14..C27] SM00	Crate 20,Slot 1
CH26	1550	200	50	30	10	50	20	S [P4,C00..C13] SM00	Crate 20,Slot 2
CH27	1550	200	50	30	10	50	20	S [P4,C14..C27] SM00	Crate 20,Slot 3
CH28	1550	200	50	30	10	50	20	S [P3,C00..C13] SM01	Crate 21,Slot 0
CH29	1550	200	50	30	10	50	20	S [P3,C14..C27] SM01	Crate 21,Slot 1
CH30	1550	200	50	30	10	50	20	S [P4,C00..C13] SM01	Crate 21,Slot 2
CH31	1550	200	50	30	10	50	20	S [P4,C14..C27] SM01	Crate 21,Slot 3
CH32	1550	200	50	30	10	50	20	S [P3,C00..C13] SM02	Crate 22,Slot 0
CH33	1550	200	50	30	10	50	20	S [P3,C14..C27] SM02	Crate 22,Slot 1
CH34	*	*	*	*	*	*	*	SPARE	
CH35	1550	750	10	10	10	10	10	MONITOR	

Comments :-

1. Notation

SM(n)	: Supermodule Number	Von	: ON state voltage
C/S	: Centre Strip	Vstby	: STANDBY state voltage
D1	: Drift Strip 1	Ion	: ON state trip current
D2	: Drift Strip 2	Istby	: STANDBY state trip current
D3	: Drift Strip 3	RUP	: RAMP-UP (volts/sec)
D4	: Drift Strip 4	RDW	: RAMP-DOWN (volts/sec)
K	: Cathode	TRIP	: Trip Time
P(n)	: Drift Plane Number		
C(n)	: Cell Number		

4. CAEN SY227 Configuration

Crate # 17

S/A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SY127 Connection
Slot 0	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH24
Slot 1	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH25
Slot 2	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH26
Slot 3	NOT USED																

See table 30-31

Crate # 18

S/A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SY127 Connection
Slot 0	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH28
Slot 1	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH29
Slot 2	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH30
Slot 3	NOT USED																

Crate # 19

S/A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SY127 Connection
Slot 0	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH32
Slot 1	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH33
Slot 2	0/1	2/3	4/5	6/7	8/9	10/11	12/13	14/15	16/17	18/19	20/21	22/23	24/25	26/27	28/29	30/31	Crate# 1 CH34
Slot 3	NOT USED																

Crate # 20

S/A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SY127 Connection
Slot 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	*	*	Crate# 1 CH24
Slot 1	14	15	16	17	18	19	20	21	22	23	24	25	26	27	*	*	Crate# 1 CH25
Slot 2	0	1	2	3	4	5	6	7	8	9	10	11	12	13	*	*	Crate# 1 CH26
Slot 3	14	15	16	17	18	19	20	21	22	23	24	25	26	27	*	*	Crate# 1 CH27

See table 30

Crate # 21

S/A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SY127 Connection
Slot 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	*	*	Crate# 1 CH28
Slot 1	14	15	16	17	18	19	20	21	22	23	24	25	26	27	*	*	Crate# 1 CH29
Slot 2	0	1	2	3	4	5	6	7	8	9	10	11	12	13	*	*	Crate# 1 CH30
Slot 3	14	15	16	17	18	19	20	21	22	23	24	25	26	27	*	*	Crate# 1 CH31

Crate # 22

S/A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SY127 Connection
Slot 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	*	*	Crate# 1 CH32
Slot 1	14	15	16	17	18	19	20	21	22	23	24	25	26	27	*	*	Crate# 1 CH33
Slot 2	NOT USED																
Slot 3	NOT USED																

Comments :-

1. The italicized numbered entries refer to the chamber cell numbers.
2. Slot(n) refers to a Model A279 SHV 16 channel distribution board.
3. S/A = A279 channel address (0..15).

Planar Chamber Cable Numbering

The numbering scheme is defined by Figure 1.

Note :- "OLD" chamber only

Code : XAA-NN-NN-AA
Group : 1 2 3 4

where :-

X is a capital alphabetic character (A-Z)
N is a numeric character (0-9)
A is an alphanumeric character (A-Z, 0-9)

Group	Planar Codes
Group 1 = Detector Mnemonic	FD0, FD1, FD2
Group 2 = Plane Number	0, 1, 2
Group 3 = Double Cell Number	0.. 15
Group 4 = Channel Number	0.. 7
or Cable Type	F1 inner FADC cable, thin F3 outer FADC cable, thick H3 inner HV cable (5kV) V3 outer HV cable (5kV) M1 inner monitor cable M2 outer monitor cable

Notes :-

(a) All numeric sequences start from 0 (zero).

(b) Signal Cable Codes

Cell pair groupings are shown in Fig 2.

(c) High Voltage Cable Codes

(i) The Sense HV cable codes are identical to the signal cable codes apart from the group 4 assignment.

(ii) The Drift HV codes are assigned as follows :-

Cells [0..9 + 16..21] are supplied by :

FDi-NN-16-H3/V3	Centre strip
FDi-NN-17-H3/V3	Strip 1
FDi-NN-18-H3/V3	Strip 2
FDi-NN-19-H3/V3	Strip 3
FDi-NN-20-H3/V3	Strip 4
FDi-NN-21-H3/V3	Cathode

Cells [10..15 + 22..31] are supplied by :

FDi-NN-22-H3/V3	Centre strip
FDi-NN-23-H3/V3	Strip 1
FDi-NN-24-H3/V3	Strip 2
FDi-NN-25-H3/V3	Strip 3
FDi-NN-26-H3/V3	Strip 4
FDi-NN-27-H3/V3	Cathode

SUPERMODULE 0

(PLANE : 0)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD0-00-00-00 to FD0-00-00-07	FD0-00-00-F1	FD0-00-00-F3	FD0-00-00-H3	FD0-00-00-V3
FD0-00-01-00 to FD0-00-01-07	FD0-00-01-F1	FD0-00-01-F3	FD0-00-01-H3	FD0-00-01-V3
FD0-00-02-00 to FD0-00-02-07	FD0-00-02-F1	FD0-00-02-F3	FD0-00-02-H3	FD0-00-02-V3
FD0-00-03-00 to FD0-00-03-07	FD0-00-03-F1	FD0-00-03-F3	FD0-00-03-H3	FD0-00-03-V3
FD0-00-04-00 to FD0-00-04-07	FD0-00-04-F1	FD0-00-04-F3	FD0-00-04-H3	FD0-00-04-V3
FD0-00-05-00 to FD0-00-05-07	FD0-00-05-F1	FD0-00-05-F3	FD0-00-05-H3	FD0-00-05-V3
FD0-00-06-00 to FD0-00-06-07	FD0-00-06-F1	FD0-00-06-F3	FD0-00-06-H3	FD0-00-06-V3
FD0-00-07-00 to FD0-00-07-07	FD0-00-07-F1	FD0-00-07-F3	FD0-00-07-H3	FD0-00-07-V3
FD0-00-08-00 to FD0-00-08-07	FD0-00-08-F1	FD0-00-08-F3	FD0-00-08-H3	FD0-00-08-V3
FD0-00-09-00 to FD0-00-09-07	FD0-00-09-F1	FD0-00-09-F3	FD0-00-09-H3	FD0-00-09-V3
FD0-00-10-00 to FD0-00-10-07	FD0-00-10-F1	FD0-00-10-F3	FD0-00-10-H3	FD0-00-10-V3
FD0-00-11-00 to FD0-00-11-07	FD0-00-11-F1	FD0-00-11-F3	FD0-00-11-H3	FD0-00-11-V3
FD0-00-12-00 to FD0-00-12-07	FD0-00-12-F1	FD0-00-12-F3	FD0-00-12-H3	FD0-00-12-V3
FD0-00-13-00 to FD0-00-13-07	FD0-00-13-F1	FD0-00-13-F3	FD0-00-13-H3	FD0-00-13-V3
FD0-00-14-00 to FD0-00-14-07	FD0-00-14-F1	FD0-00-14-F3	FD0-00-14-H3	FD0-00-14-V3
FD0-00-15-00 to FD0-00-15-07	FD0-00-15-F1	FD0-00-15-F3	FD0-00-15-H3	FD0-00-15-V3

Drift HV Cable Code

	(Inner)	(Outer)
e/s	FD0-00-16-H3	FD0-00-16-V3
1	FD0-00-17-H3	FD0-00-17-V3
2	FD0-00-18-H3	FD0-00-18-V3
3	FD0-00-19-H3	FD0-00-19-V3
4	FD0-00-20-H3	FD0-00-20-V3
K	FD0-00-21-H3	FD0-00-21-V3
1/5	FD0-00-22-H3	FD0-00-22-V3
1	FD0-00-23-H3	FD0-00-23-V3
2	FD0-00-24-H3	FD0-00-24-V3
3	FD0-00-25-H3	FD0-00-25-V3
4	FD0-00-26-H3	FD0-00-26-V3
K	FD0-00-27-H3	FD0-00-27-V3

SUPERMODULE 0

(PLANE : 1)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD0-01-00-00 to FD0-01-00-07	FD0-01-00-F1	FD0-01-00-F3	FD0-01-00-H3	FD0-01-00-V3
FD0-01-01-00 to FD0-01-01-07	FD0-01-01-F1	FD0-01-01-F3	FD0-01-01-H3	FD0-01-01-V3
FD0-01-02-00 to FD0-01-02-07	FD0-01-02-F1	FD0-01-02-F3	FD0-01-02-H3	FD0-01-02-V3
FD0-01-03-00 to FD0-01-03-07	FD0-01-03-F1	FD0-01-03-F3	FD0-01-03-H3	FD0-01-03-V3
FD0-01-04-00 to FD0-01-04-07	FD0-01-04-F1	FD0-01-04-F3	FD0-01-04-H3	FD0-01-04-V3
FD0-01-05-00 to FD0-01-05-07	FD0-01-05-F1	FD0-01-05-F3	FD0-01-05-H3	FD0-01-05-V3
FD0-01-06-00 to FD0-01-06-07	FD0-01-06-F1	FD0-01-06-F3	FD0-01-06-H3	FD0-01-06-V3
FD0-01-07-00 to FD0-01-07-07	FD0-01-07-F1	FD0-01-07-F3	FD0-01-07-H3	FD0-01-07-V3
FD0-01-08-00 to FD0-01-08-07	FD0-01-08-F1	FD0-01-08-F3	FD0-01-08-H3	FD0-01-08-V3
FD0-01-09-00 to FD0-01-09-07	FD0-01-09-F1	FD0-01-09-F3	FD0-01-09-H3	FD0-01-09-V3
FD0-01-10-00 to FD0-01-10-07	FD0-01-10-F1	FD0-01-10-F3	FD0-01-10-H3	FD0-01-10-V3
FD0-01-11-00 to FD0-01-11-07	FD0-01-11-F1	FD0-01-11-F3	FD0-01-11-H3	FD0-01-11-V3
FD0-01-12-00 to FD0-01-12-07	FD0-01-12-F1	FD0-01-12-F3	FD0-01-12-H3	FD0-01-12-V3
FD0-01-13-00 to FD0-01-13-07	FD0-01-13-F1	FD0-01-13-F3	FD0-01-13-H3	FD0-01-13-V3
FD0-01-14-00 to FD0-01-14-07	FD0-01-14-F1	FD0-01-14-F3	FD0-01-14-H3	FD0-01-14-V3
FD0-01-15-00 to FD0-01-15-07	FD0-01-15-F1	FD0-01-15-F3	FD0-01-15-H3	FD0-01-15-V3

Drift HV Cable Code

(Inner)	(Outer)
FD0-01-16-H3	FD0-01-16-V3
FD0-01-17-H3	FD0-01-17-V3
FD0-01-18-H3	FD0-01-18-V3
FD0-01-19-H3	FD0-01-19-V3
FD0-01-20-H3	FD0-01-20-V3
FD0-01-21-H3	FD0-01-21-V3
FD0-01-22-H3	FD0-01-22-V3
FD0-01-23-H3	FD0-01-23-V3
FD0-01-24-H3	FD0-01-24-V3
FD0-01-25-H3	FD0-01-25-V3
FD0-01-26-H3	FD0-01-26-V3
FD0-01-27-H3	FD0-01-27-V3

SUPERMODULE 0

(PLANE : 2)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD0-02-00-00 to FD0-02-00-07	FD0-02-00-F1	FD0-02-00-F3	FD0-02-00-H3	FD0-02-00-V3
FD0-02-01-00 to FD0-02-01-07	FD0-02-01-F1	FD0-02-01-F3	FD0-02-01-H3	FD0-02-01-V3
FD0-02-02-00 to FD0-02-02-07	FD0-02-02-F1	FD0-02-02-F3	FD0-02-02-H3	FD0-02-02-V3
FD0-02-03-00 to FD0-02-03-07	FD0-02-03-F1	FD0-02-03-F3	FD0-02-03-H3	FD0-02-03-V3
FD0-02-04-00 to FD0-02-04-07	FD0-02-04-F1	FD0-02-04-F3	FD0-02-04-H3	FD0-02-04-V3
FD0-02-05-00 to FD0-02-05-07	FD0-02-05-F1	FD0-02-05-F3	FD0-02-05-H3	FD0-02-05-V3
FD0-02-06-00 to FD0-02-06-07	FD0-02-06-F1	FD0-02-06-F3	FD0-02-06-H3	FD0-02-06-V3
FD0-02-07-00 to FD0-02-07-07	FD0-02-07-F1	FD0-02-07-F3	FD0-02-07-H3	FD0-02-07-V3
FD0-02-08-00 to FD0-02-08-07	FD0-02-08-F1	FD0-02-08-F3	FD0-02-08-H3	FD0-02-08-V3
FD0-02-09-00 to FD0-02-09-07	FD0-02-09-F1	FD0-02-09-F3	FD0-02-09-H3	FD0-02-09-V3
FD0-02-10-00 to FD0-02-10-07	FD0-02-10-F1	FD0-02-10-F3	FD0-02-10-H3	FD0-02-10-V3
FD0-02-11-00 to FD0-02-11-07	FD0-02-11-F1	FD0-02-11-F3	FD0-02-11-H3	FD0-02-11-V3
FD0-02-12-00 to FD0-02-12-07	FD0-02-12-F1	FD0-02-12-F3	FD0-02-12-H3	FD0-02-12-V3
FD0-02-13-00 to FD0-02-13-07	FD0-02-13-F1	FD0-02-13-F3	FD0-02-13-H3	FD0-02-13-V3
FD0-02-14-00 to FD0-02-14-07	FD0-02-14-F1	FD0-02-14-F3	FD0-02-14-H3	FD0-02-14-V3
FD0-02-15-00 to FD0-02-15-07	FD0-02-15-F1	FD0-02-15-F3	FD0-02-15-H3	FD0-02-15-V3

Drift HV Cable Code

(Inner)	(Outer)
FD0-02-16-H3	FD0-02-16-V3
FD0-02-17-H3	FD0-02-17-V3
FD0-02-18-H3	FD0-02-18-V3
FD0-02-19-H3	FD0-02-19-V3
FD0-02-20-H3	FD0-02-20-V3
FD0-02-21-H3	FD0-02-21-V3
FD0-02-22-H3	FD0-02-22-V3
FD0-02-23-H3	FD0-02-23-V3
FD0-02-24-H3	FD0-02-24-V3
FD0-02-25-H3	FD0-02-25-V3
FD0-02-26-H3	FD0-02-26-V3
FD0-02-27-H3	FD0-02-27-V3

SUPERMODULE 1

(PLANE : 0)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD1-00-00-00 to FD1-00-00-07	FD1-00-00-F1	FD1-00-00-F3	FD1-00-00-H3	FD1-00-00-V3
FD1-00-01-00 to FD1-00-01-07	FD1-00-01-F1	FD1-00-01-F3	FD1-00-01-H3	FD1-00-01-V3
FD1-00-02-00 to FD1-00-02-07	FD1-00-02-F1	FD1-00-02-F3	FD1-00-02-H3	FD1-00-02-V3
FD1-00-03-00 to FD1-00-03-07	FD1-00-03-F1	FD1-00-03-F3	FD1-00-03-H3	FD1-00-03-V3
FD1-00-04-00 to FD1-00-04-07	FD1-00-04-F1	FD1-00-04-F3	FD1-00-04-H3	FD1-00-04-V3
FD1-00-05-00 to FD1-00-05-07	FD1-00-05-F1	FD1-00-05-F3	FD1-00-05-H3	FD1-00-05-V3
FD1-00-06-00 to FD1-00-06-07	FD1-00-06-F1	FD1-00-06-F3	FD1-00-06-H3	FD1-00-06-V3
FD1-00-07-00 to FD1-00-07-07	FD1-00-07-F1	FD1-00-07-F3	FD1-00-07-H3	FD1-00-07-V3
FD1-00-08-00 to FD1-00-08-07	FD1-00-08-F1	FD1-00-08-F3	FD1-00-08-H3	FD1-00-08-V3
FD1-00-09-00 to FD1-00-09-07	FD1-00-09-F1	FD1-00-09-F3	FD1-00-09-H3	FD1-00-09-V3
FD1-00-10-00 to FD1-00-10-07	FD1-00-10-F1	FD1-00-10-F3	FD1-00-10-H3	FD1-00-10-V3
FD1-00-11-00 to FD1-00-11-07	FD1-00-11-F1	FD1-00-11-F3	FD1-00-11-H3	FD1-00-11-V3
FD1-00-12-00 to FD1-00-12-07	FD1-00-12-F1	FD1-00-12-F3	FD1-00-12-H3	FD1-00-12-V3
FD1-00-13-00 to FD1-00-13-07	FD1-00-13-F1	FD1-00-13-F3	FD1-00-13-H3	FD1-00-13-V3
FD1-00-14-00 to FD1-00-14-07	FD1-00-14-F1	FD1-00-14-F3	FD1-00-14-H3	FD1-00-14-V3
FD1-00-15-00 to FD1-00-15-07	FD1-00-15-F1	FD1-00-15-F3	FD1-00-15-H3	FD1-00-15-V3

Drift HV Cable Code

(Inner)	(Outer)
FD1-00-16-H3	FD1-00-16-V3
FD1-00-17-H3	FD1-00-17-V3
FD1-00-18-H3	FD1-00-18-V3
FD1-00-19-H3	FD1-00-19-V3
FD1-00-20-H3	FD1-00-20-V3
FD1-00-21-H3	FD1-00-21-V3
FD1-00-22-H3	FD1-00-22-V3
FD1-00-23-H3	FD1-00-23-V3
FD1-00-24-H3	FD1-00-24-V3
FD1-00-25-H3	FD1-00-25-V3
FD1-00-26-H3	FD1-00-26-V3
FD1-00-27-H3	FD1-00-27-V3

(PLANE : 1)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD1-01-00-00 to FD1-01-00-07	FD1-01-00-F1	FD1-01-00-F3	FD1-01-00-H3	FD1-01-00-V3
FD1-01-01-00 to FD1-01-01-07	FD1-01-01-F1	FD1-01-01-F3	FD1-01-01-H3	FD1-01-01-V3
FD1-01-02-00 to FD1-01-02-07	FD1-01-02-F1	FD1-01-02-F3	FD1-01-02-H3	FD1-01-02-V3
FD1-01-03-00 to FD1-01-03-07	FD1-01-03-F1	FD1-01-03-F3	FD1-01-03-H3	FD1-01-03-V3
FD1-01-04-00 to FD1-01-04-07	FD1-01-04-F1	FD1-01-04-F3	FD1-01-04-H3	FD1-01-04-V3
FD1-01-05-00 to FD1-01-05-07	FD1-01-05-F1	FD1-01-05-F3	FD1-01-05-H3	FD1-01-05-V3
FD1-01-06-00 to FD1-01-06-07	FD1-01-06-F1	FD1-01-06-F3	FD1-01-06-H3	FD1-01-06-V3
FD1-01-07-00 to FD1-01-07-07	FD1-01-07-F1	FD1-01-07-F3	FD1-01-07-H3	FD1-01-07-V3
FD1-01-08-00 to FD1-01-08-07	FD1-01-08-F1	FD1-01-08-F3	FD1-01-08-H3	FD1-01-08-V3
FD1-01-09-00 to FD1-01-09-07	FD1-01-09-F1	FD1-01-09-F3	FD1-01-09-H3	FD1-01-09-V3
FD1-01-10-00 to FD1-01-10-07	FD1-01-10-F1	FD1-01-10-F3	FD1-01-10-H3	FD1-01-10-V3
FD1-01-11-00 to FD1-01-11-07	FD1-01-11-F1	FD1-01-11-F3	FD1-01-11-H3	FD1-01-11-V3
FD1-01-12-00 to FD1-01-12-07	FD1-01-12-F1	FD1-01-12-F3	FD1-01-12-H3	FD1-01-12-V3
FD1-01-13-00 to FD1-01-13-07	FD1-01-13-F1	FD1-01-13-F3	FD1-01-13-H3	FD1-01-13-V3
FD1-01-14-00 to FD1-01-14-07	FD1-01-14-F1	FD1-01-14-F3	FD1-01-14-H3	FD1-01-14-V3
FD1-01-15-00 to FD1-01-15-07	FD1-01-15-F1	FD1-01-15-F3	FD1-01-15-H3	FD1-01-15-V3

Drift HV Cable Code

(Inner)	(Outer)
FD1-01-16-H3	FD1-01-16-V3
FD1-01-17-H3	FD1-01-17-V3
FD1-01-18-H3	FD1-01-18-V3
FD1-01-19-H3	FD1-01-19-V3
FD1-01-20-H3	FD1-01-20-V3
FD1-01-21-H3	FD1-01-21-V3
FD1-01-22-H3	FD1-01-22-V3
FD1-01-23-H3	FD1-01-23-V3
FD1-01-24-H3	FD1-01-24-V3
FD1-01-25-H3	FD1-01-25-V3
FD1-01-26-H3	FD1-01-26-V3
FD1-01-27-H3	FD1-01-27-V3

SUPERMODULE 1

(PLANE : 2)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD1-02-00-00 to FD1-02-00-07	FD1-02-00-F1	FD1-02-00-F3	FD1-02-00-H3	FD1-02-00-V3
FD1-02-01-00 to FD1-02-01-07	FD1-02-01-F1	FD1-02-01-F3	FD1-02-01-H3	FD1-02-01-V3
FD1-02-02-00 to FD1-02-02-07	FD1-02-02-F1	FD1-02-02-F3	FD1-02-02-H3	FD1-02-02-V3
FD1-02-03-00 to FD1-02-03-07	FD1-02-03-F1	FD1-02-03-F3	FD1-02-03-H3	FD1-02-03-V3
FD1-02-04-00 to FD1-02-04-07	FD1-02-04-F1	FD1-02-04-F3	FD1-02-04-H3	FD1-02-04-V3
FD1-02-05-00 to FD1-02-05-07	FD1-02-05-F1	FD1-02-05-F3	FD1-02-05-H3	FD1-02-05-V3
FD1-02-06-00 to FD1-02-06-07	FD1-02-06-F1	FD1-02-06-F3	FD1-02-06-H3	FD1-02-06-V3
FD1-02-07-00 to FD1-02-07-07	FD1-02-07-F1	FD1-02-07-F3	FD1-02-07-H3	FD1-02-07-V3
FD1-02-08-00 to FD1-02-08-07	FD1-02-08-F1	FD1-02-08-F3	FD1-02-08-H3	FD1-02-08-V3
FD1-02-09-00 to FD1-02-09-07	FD1-02-09-F1	FD1-02-09-F3	FD1-02-09-H3	FD1-02-09-V3
FD1-02-10-00 to FD1-02-10-07	FD1-02-10-F1	FD1-02-10-F3	FD1-02-10-H3	FD1-02-10-V3
FD1-02-11-00 to FD1-02-11-07	FD1-02-11-F1	FD1-02-11-F3	FD1-02-11-H3	FD1-02-11-V3
FD1-02-12-00 to FD1-02-12-07	FD1-02-12-F1	FD1-02-12-F3	FD1-02-12-H3	FD1-02-12-V3
FD1-02-13-00 to FD1-02-13-07	FD1-02-13-F1	FD1-02-13-F3	FD1-02-13-H3	FD1-02-13-V3
FD1-02-14-00 to FD1-02-14-07	FD1-02-14-F1	FD1-02-14-F3	FD1-02-14-H3	FD1-02-14-V3
FD1-02-15-00 to FD1-02-15-07	FD1-02-15-F1	FD1-02-15-F3	FD1-02-15-H3	FD1-02-15-V3

Drift HV Cable Code

(Inner)	(Outer)
FD1-02-16-H3	FD1-02-16-V3
FD1-02-17-H3	FD1-02-17-V3
FD1-02-18-H3	FD1-02-18-V3
FD1-02-19-H3	FD1-02-19-V3
FD1-02-20-H3	FD1-02-20-V3
FD1-02-21-H3	FD1-02-21-V3
FD1-02-22-H3	FD1-02-22-V3
FD1-02-23-H3	FD1-02-23-V3
FD1-02-24-H3	FD1-02-24-V3
FD1-02-25-H3	FD1-02-25-V3
FD1-02-26-H3	FD1-02-26-V3
FD1-02-27-H3	FD1-02-27-V3

SUPERMODULE 2

(PLANE : 0)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD2-00-00-00 to FD2-00-00-07	FD2-00-00-F1	FD2-00-00-F3	FD2-00-00-H3	FD2-00-00-V3
FD2-00-01-00 to FD2-00-01-07	FD2-00-01-F1	FD2-00-01-F3	FD2-00-01-H3	FD2-00-01-V3
FD2-00-02-00 to FD2-00-02-07	FD2-00-02-F1	FD2-00-02-F3	FD2-00-02-H3	FD2-00-02-V3
FD2-00-03-00 to FD2-00-03-07	FD2-00-03-F1	FD2-00-03-F3	FD2-00-03-H3	FD2-00-03-V3
FD2-00-04-00 to FD2-00-04-07	FD2-00-04-F1	FD2-00-04-F3	FD2-00-04-H3	FD2-00-04-V3
FD2-00-05-00 to FD2-00-05-07	FD2-00-05-F1	FD2-00-05-F3	FD2-00-05-H3	FD2-00-05-V3
FD2-00-06-00 to FD2-00-06-07	FD2-00-06-F1	FD2-00-06-F3	FD2-00-06-H3	FD2-00-06-V3
FD2-00-07-00 to FD2-00-07-07	FD2-00-07-F1	FD2-00-07-F3	FD2-00-07-H3	FD2-00-07-V3
FD2-00-08-00 to FD2-00-08-07	FD2-00-08-F1	FD2-00-08-F3	FD2-00-08-H3	FD2-00-08-V3
FD2-00-09-00 to FD2-00-09-07	FD2-00-09-F1	FD2-00-09-F3	FD2-00-09-H3	FD2-00-09-V3
FD2-00-10-00 to FD2-00-10-07	FD2-00-10-F1	FD2-00-10-F3	FD2-00-10-H3	FD2-00-10-V3
FD2-00-11-00 to FD2-00-11-07	FD2-00-11-F1	FD2-00-11-F3	FD2-00-11-H3	FD2-00-11-V3
FD2-00-12-00 to FD2-00-12-07	FD2-00-12-F1	FD2-00-12-F3	FD2-00-12-H3	FD2-00-12-V3
FD2-00-13-00 to FD2-00-13-07	FD2-00-13-F1	FD2-00-13-F3	FD2-00-13-H3	FD2-00-13-V3
FD2-00-14-00 to FD2-00-14-07	FD2-00-14-F1	FD2-00-14-F3	FD2-00-14-H3	FD2-00-14-V3
FD2-00-15-00 to FD2-00-15-07	FD2-00-15-F1	FD2-00-15-F3	FD2-00-15-H3	FD2-00-15-V3

Drift HV Cable Code

(Inner)	(Outer)
FD2-00-16-H3	FD2-00-16-V3
FD2-00-17-H3	FD2-00-17-V3
FD2-00-18-H3	FD2-00-18-V3
FD2-00-19-H3	FD2-00-19-V3
FD2-00-20-H3	FD2-00-20-V3
FD2-00-21-H3	FD2-00-21-V3
FD2-00-22-H3	FD2-00-22-V3
FD2-00-23-H3	FD2-00-23-V3
FD2-00-24-H3	FD2-00-24-V3
FD2-00-25-H3	FD2-00-25-V3
FD2-00-26-H3	FD2-00-26-V3
FD2-00-27-H3	FD2-00-27-V3

SUPERMODULE 2

(PLANE : 1)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD2-01-00-00 to FD2-01-00-07	FD2-01-00-F1	FD2-01-00-F3	FD2-01-00-H3	FD2-01-00-V3
FD2-01-01-00 to FD2-01-01-07	FD2-01-01-F1	FD2-01-01-F3	FD2-01-01-H3	FD2-01-01-V3
FD2-01-02-00 to FD2-01-02-07	FD2-01-02-F1	FD2-01-02-F3	FD2-01-02-H3	FD2-01-02-V3
FD2-01-03-00 to FD2-01-03-07	FD2-01-03-F1	FD2-01-03-F3	FD2-01-03-H3	FD2-01-03-V3
FD2-01-04-00 to FD2-01-04-07	FD2-01-04-F1	FD2-01-04-F3	FD2-01-04-H3	FD2-01-04-V3
FD2-01-05-00 to FD2-01-05-07	FD2-01-05-F1	FD2-01-05-F3	FD2-01-05-H3	FD2-01-05-V3
FD2-01-06-00 to FD2-01-06-07	FD2-01-06-F1	FD2-01-06-F3	FD2-01-06-H3	FD2-01-06-V3
FD2-01-07-00 to FD2-01-07-07	FD2-01-07-F1	FD2-01-07-F3	FD2-01-07-H3	FD2-01-07-V3
FD2-01-08-00 to FD2-01-08-07	FD2-01-08-F1	FD2-01-08-F3	FD2-01-08-H3	FD2-01-08-V3
FD2-01-09-00 to FD2-01-09-07	FD2-01-09-F1	FD2-01-09-F3	FD2-01-09-H3	FD2-01-09-V3
FD2-01-10-00 to FD2-01-10-07	FD2-01-10-F1	FD2-01-10-F3	FD2-01-10-H3	FD2-01-10-V3
FD2-01-11-00 to FD2-01-11-07	FD2-01-11-F1	FD2-01-11-F3	FD2-01-11-H3	FD2-01-11-V3
FD2-01-12-00 to FD2-01-12-07	FD2-01-12-F1	FD2-01-12-F3	FD2-01-12-H3	FD2-01-12-V3
FD2-01-13-00 to FD2-01-13-07	FD2-01-13-F1	FD2-01-13-F3	FD2-01-13-H3	FD2-01-13-V3
FD2-01-14-00 to FD2-01-14-07	FD2-01-14-F1	FD2-01-14-F3	FD2-01-14-H3	FD2-01-14-V3
FD2-01-15-00 to FD2-01-15-07	FD2-01-15-F1	FD2-01-15-F3	FD2-01-15-H3	FD2-01-15-V3

Drift HV Cable Code

(Inner)	(Outer)
FD0-00-16-H3	FD0-00-16-V3
FD2-01-17-H3	FD2-01-17-V3
FD2-01-18-H3	FD2-01-18-V3
FD2-01-19-H3	FD2-01-19-V3
FD2-01-20-H3	FD2-01-20-V3
FD2-01-21-H3	FD2-01-21-V3
FD2-01-22-H3	FD2-01-22-V3
FD2-01-23-H3	FD2-01-23-V3
FD2-01-24-H3	FD2-01-24-V3
FD2-01-25-H3	FD2-01-25-V3
FD2-01-26-H3	FD2-01-26-V3
FD2-01-27-H3	FD2-01-27-V3

SUPERMODULE 2

(PLANE : 2)

<u>Channel Code</u>	<u>Signal Cable Code</u>		<u>Sense HV Cable Code</u>	
	(Inner)	(Outer)	(Inner)	(Outer)
FD2-02-00-00 to FD2-02-00-07	FD2-02-00-F1	FD2-02-00-F3	FD2-02-00-H3	FD2-02-00-V3
FD2-02-01-00 to FD2-02-01-07	FD2-02-01-F1	FD2-02-01-F3	FD2-02-01-H3	FD2-02-01-V3
FD2-02-02-00 to FD2-02-02-07	FD2-02-02-F1	FD2-02-02-F3	FD2-02-02-H3	FD2-02-02-V3
FD2-02-03-00 to FD2-02-03-07	FD2-02-03-F1	FD2-02-03-F3	FD2-02-03-H3	FD2-02-03-V3
FD2-02-04-00 to FD2-02-04-07	FD2-02-04-F1	FD2-02-04-F3	FD2-02-04-H3	FD2-02-04-V3
FD2-02-05-00 to FD2-02-05-07	FD2-02-05-F1	FD2-02-05-F3	FD2-02-05-H3	FD2-02-05-V3
FD2-02-06-00 to FD2-02-06-07	FD2-02-06-F1	FD2-02-06-F3	FD2-02-06-H3	FD2-02-06-V3
FD2-02-07-00 to FD2-02-07-07	FD2-02-07-F1	FD2-02-07-F3	FD2-02-07-H3	FD2-02-07-V3
FD2-02-08-00 to FD2-02-08-07	FD2-02-08-F1	FD2-02-08-F3	FD2-02-08-H3	FD2-02-08-V3
FD2-02-09-00 to FD2-02-09-07	FD2-02-09-F1	FD2-02-09-F3	FD2-02-09-H3	FD2-02-09-V3
FD2-02-10-00 to FD2-02-10-07	FD2-02-10-F1	FD2-02-10-F3	FD2-02-10-H3	FD2-02-10-V3
FD2-02-11-00 to FD2-02-11-07	FD2-02-11-F1	FD2-02-11-F3	FD2-02-11-H3	FD2-02-11-V3
FD2-02-12-00 to FD2-02-12-07	FD2-02-12-F1	FD2-02-12-F3	FD2-02-12-H3	FD2-02-12-V3
FD2-02-13-00 to FD2-02-13-07	FD2-02-13-F1	FD2-02-13-F3	FD2-02-13-H3	FD2-02-13-V3
FD2-02-14-00 to FD2-02-14-07	FD2-02-14-F1	FD2-02-14-F3	FD2-02-14-H3	FD2-02-14-V3
FD2-02-15-00 to FD2-02-15-07	FD2-02-15-F1	FD2-02-15-F3	FD2-02-15-H3	FD2-02-15-V3

Drift HV Cable Code

(Inner)	(Outer)
FD2-02-16-H3	FD2-02-16-V3
FD2-02-17-H3	FD2-02-17-V3
FD2-02-18-H3	FD2-02-18-V3
FD2-02-19-H3	FD2-02-19-V3
FD2-02-20-H3	FD2-02-20-V3
FD2-02-21-H3	FD2-02-21-V3
FD2-02-22-H3	FD2-02-22-V3
FD2-02-23-H3	FD2-02-23-V3
FD2-02-24-H3	FD2-02-24-V3
FD2-02-25-H3	FD2-02-25-V3
FD2-02-26-H3	FD2-02-26-V3
FD2-02-27-H3	FD2-02-27-V3