

**New 512 MBIT/SEC ID-1 Recorder
Sony DIR-1000H**

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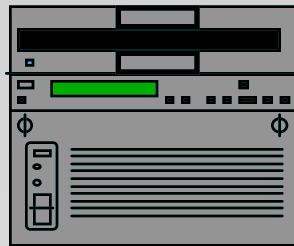
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Current DIR-1000 Series

PARAMETER/MODEL	DIR-1000	DIR-1000M	DIR-1000L
Recording Formats	ANSI X3B.6 ID-1 19mm DTF		
Cassette Tapes	19mm Type SD-1 Digital Data Cassette (L/M)		
Recording Capacity	Max. 96 GBytes (L-Cassette) Max. 41 GBytes (M-Cassette)		
User Data Rate (Mbps)	256		
	128	128	
	64	64	64
	32	32	32
	16	16	16
	10.7		10.7
			8

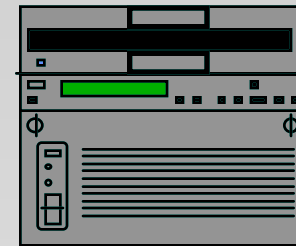
DIR-1000H

How to realize 512 Mbps



DIR-1000

256 Mbps \longrightarrow 512 Mbps



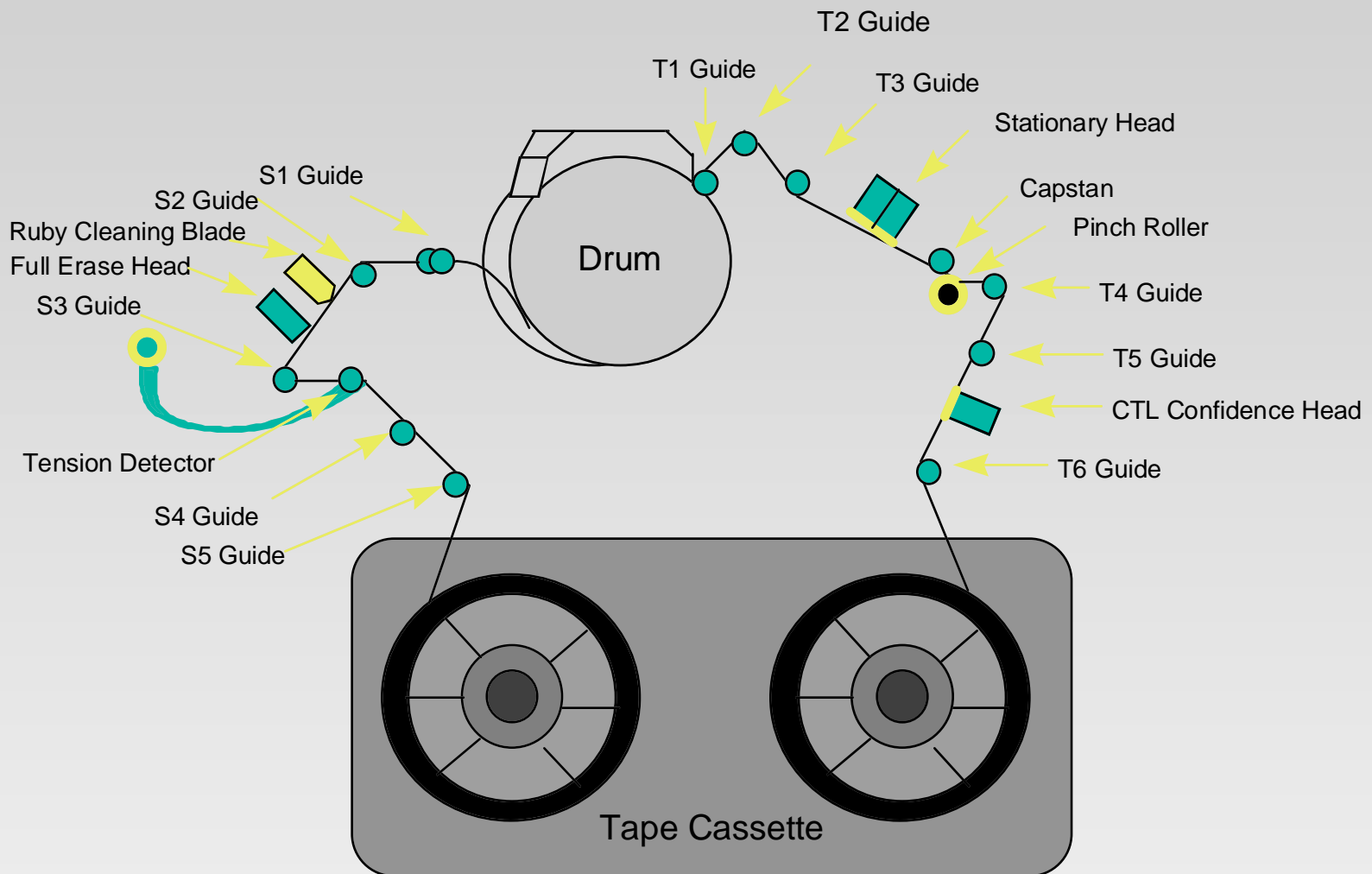
DIR-1000H

	DIR-1000	Double Speed of Drum	DIR-1000H
			Double Number of Heads
Record Data Rate/ch	88 Mbps	176 Mbps	88 Mbps
Number of Head	Rec: 8 PB: 8	Rec: 8 PB: 8	Rec: 16 PB: 16
Drum Rotation	110 Hz	220 Hz	110 Hz
Tape Speed	423.6 mm/s	847.2 mm / sec	847.2mm/s

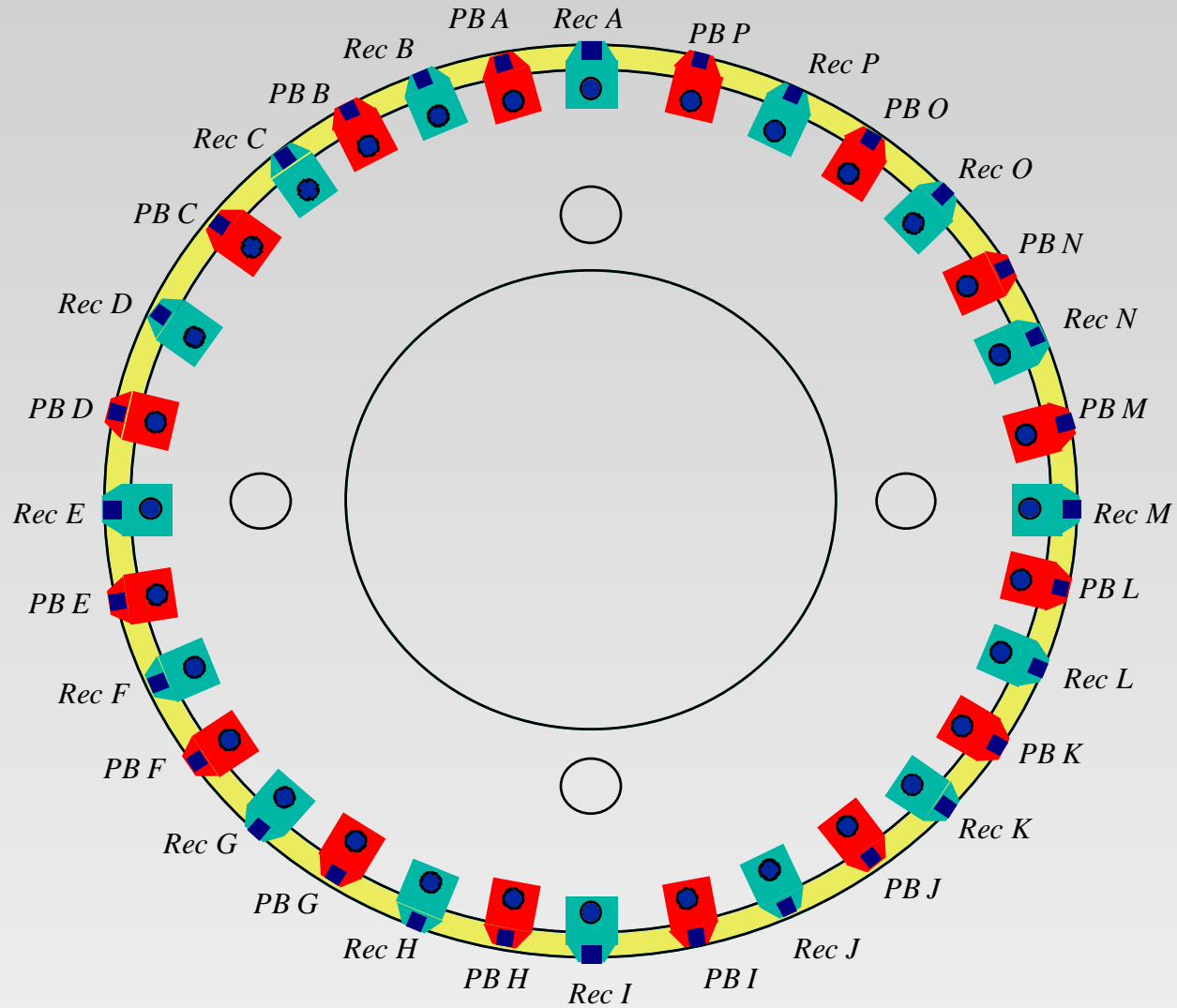
Main Technology

- New Drum with 32 Heads (16ch REC/PB)
- New IC for Digital REC Equalizer & REC Driver
- 5 New IC for Processor

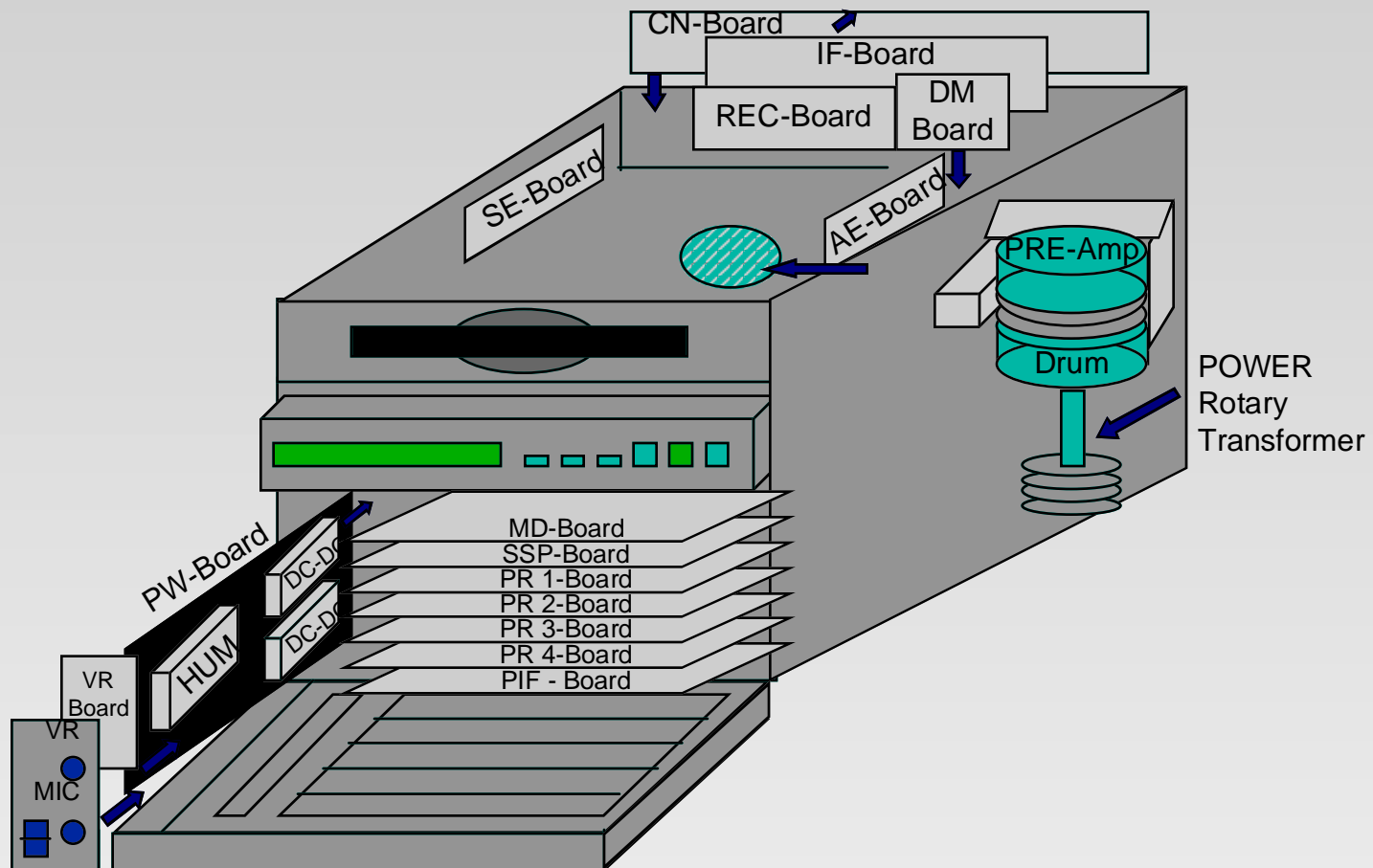
Tape Transport



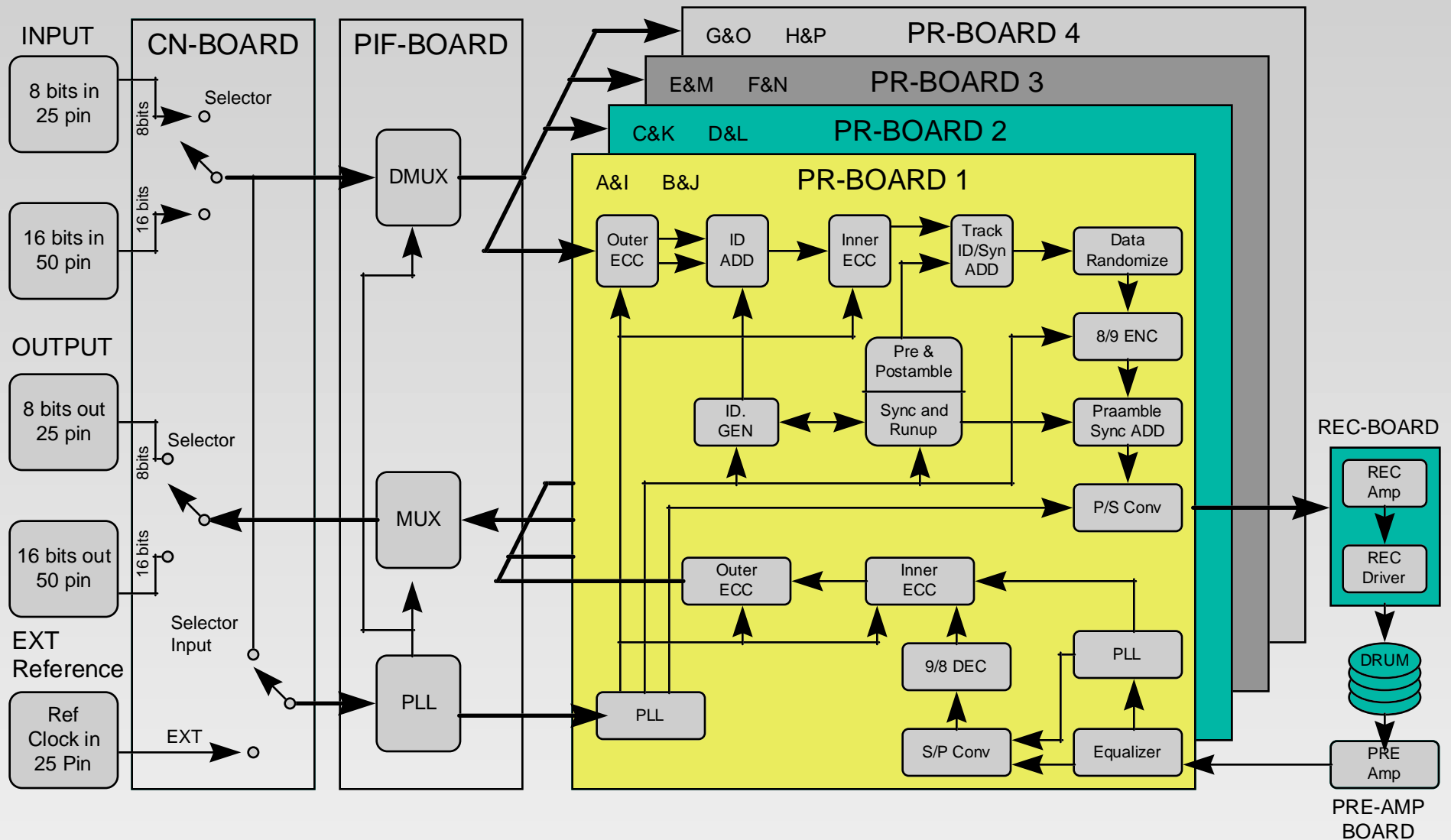
DIR-1000H Head Configuration



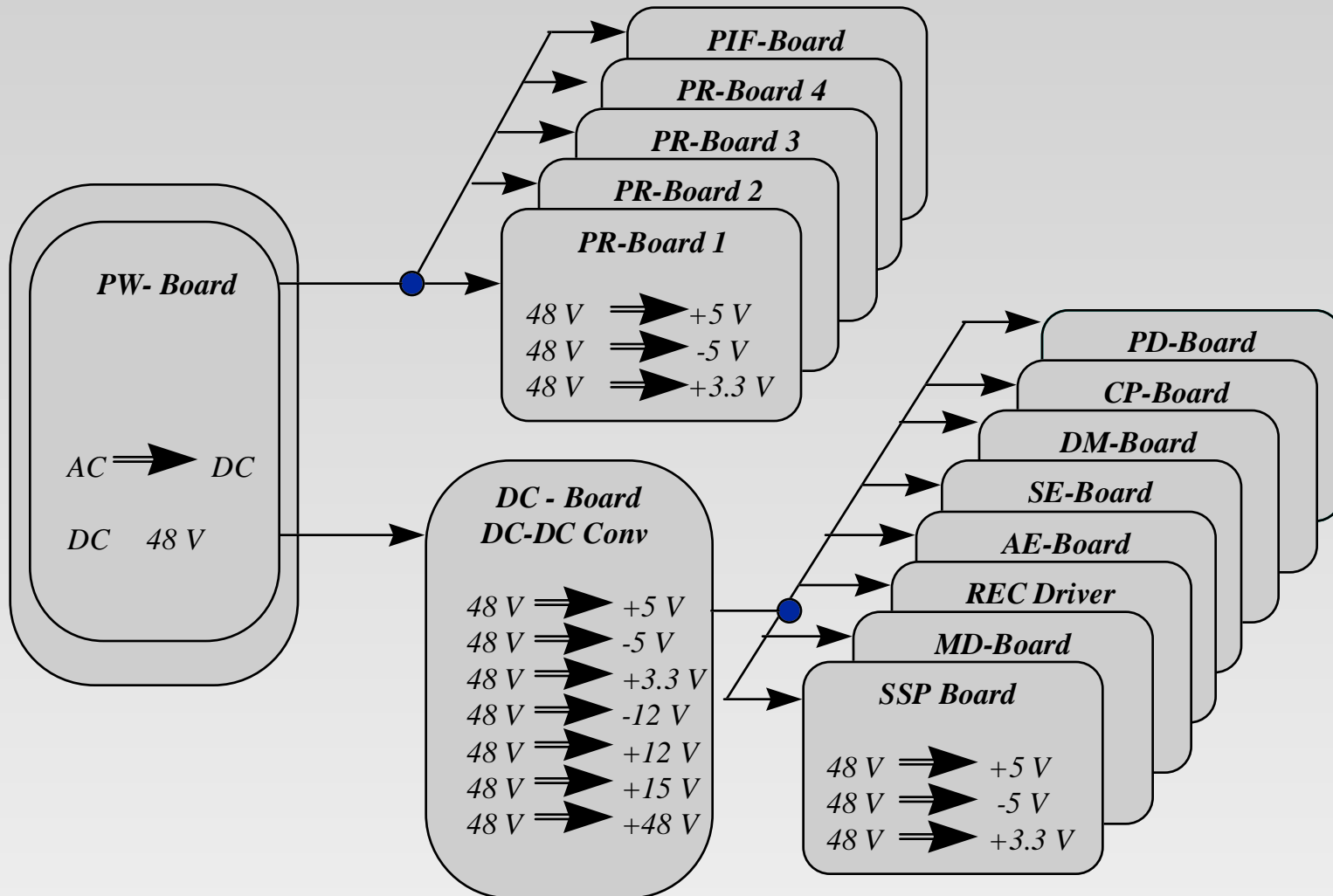
Principal Component Location



Signal Block Diagram



Power Supply



Tentative Specifications

Performance

Model Name	DIR-1000H
Recorded Tape Format	ANSI X3.175-1990 ID-1
Cassette Tape	19mm type SD1 (Hi-Hc) Large/Medium sizes
Recording Capacity	Max. 770 Gbits (L-cassette, 16 μ m) Max. 330 Gbits (M-cassette, 16 μ m)
User Data Rate (Mbps) (Record/Playback)	512 400 256
Bit Error Rate (Corrected)	1 x 10E-10
Data Assurance	Read-after-Write for Data and CTL (Data and Track Set ID)
Tape Loading Time	Less than 14 seconds
Servo Lock Time	Approx. 10 sec. from Stop Mode Less than 2.5 sec. from Standby Mode
Fast Forward/Rewind Time	Less than 180 sec. with L-cassette Less than 90 sec. with M-cassette

Tentative Specifications

General

Power Requirements	100V-120V/220V-240V \pm 10%, 50/60Hz
Power Consumption	650W
Operating Temperature	10°C to +35°C (50°F to 95°F)
Storage Temperature	-20°C to +60°C (-4°F to 140°F)
Operating Humidity	20% to 80% (non-condensing)
Storage Humidity	10% to 90% (non-condensing)
Weight	Approx. 70 Kg (154lbs)
Dimensions	436(W) x 432.5(H) x 635.3(D)mm (17 1/4 x 17 1/8 x 25 1/8") including handles and feet

Specifications

Recording Time/Tape Speed

Data Rate (Mbps)	Recording Time (H: hours, M: minutes)		Tape Speed (mm/sec.)
	L-size	M-size	
512	25M	10M	847.6
400	32M	14M	662.2
256	50M	20M	423.8

Specifications

Input/Output Signals (Connector)

Data Input(DS25/DS50)	8 line/16 line pairs for data (ECL,NRZ) (with clock, sync, parity)
Data Output (DS25/DS50)	8 line/16 line pairs for data (ECL, NRZ) (with clock, sync, parity, error flag)
REF(reference) Input (DS25)	Clock and Sync (ECL)
Annotation Input CH-1/CH-2 (XLR 3-pin, female)	+4dBm, 600 ohms, Balanced
Annotation Output CH-1/CH-2 (XLR 3-pin, male)	Low Impedance, Balanced
MIC In (Standard jack)	For Annotation CH-1
Headphone Out	For Annotation CH-1
Remote 1/2	RS-232C Interface
Remote 3	IEEE-488 (GPIB) Interface
Remote 4/5 (DS9)	RS-422/485 (Primary) Interface

Head Configuration

