

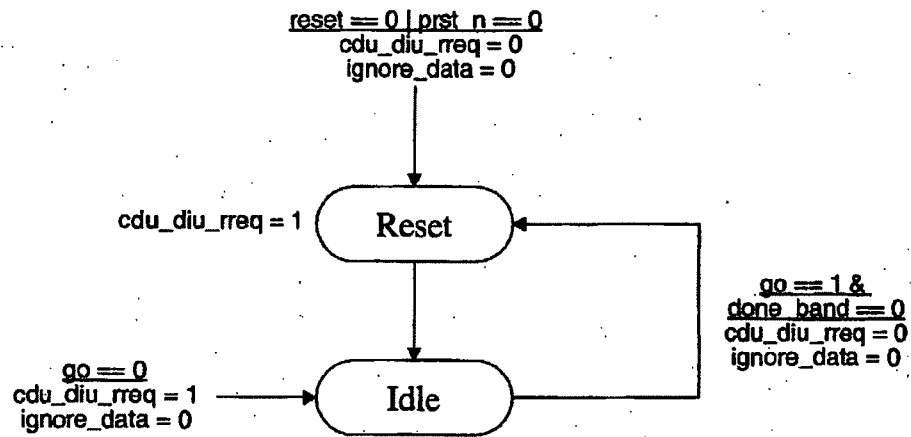


FIG. 1

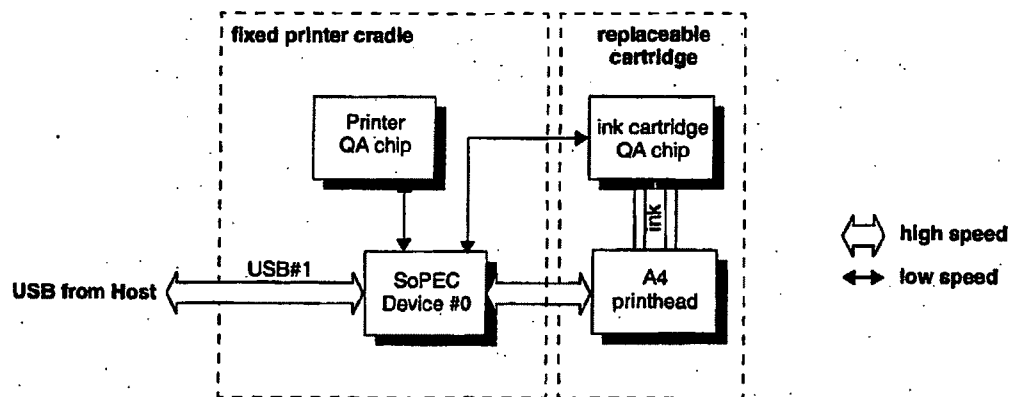


FIG. 2

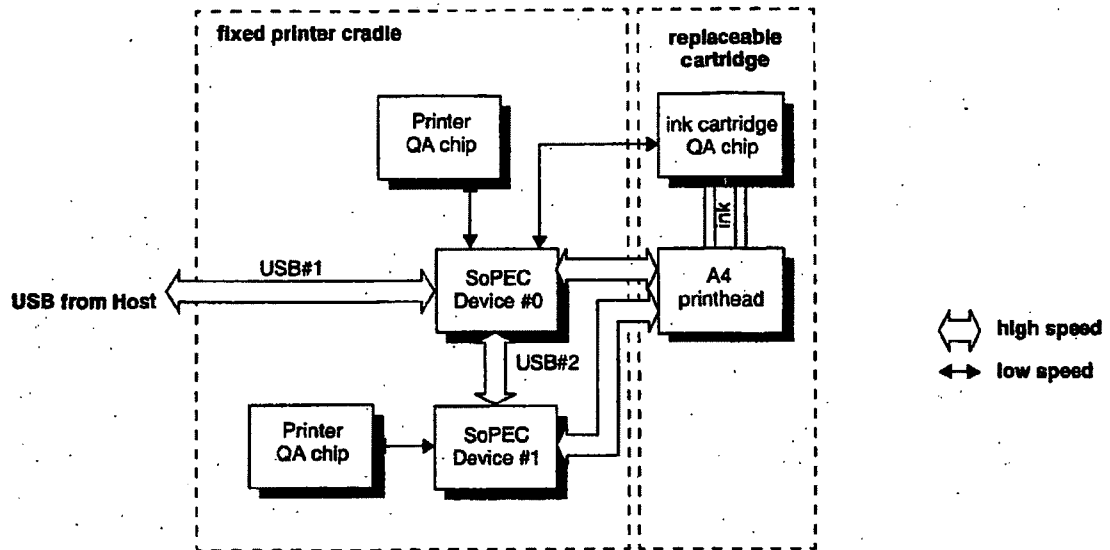


FIG. 3

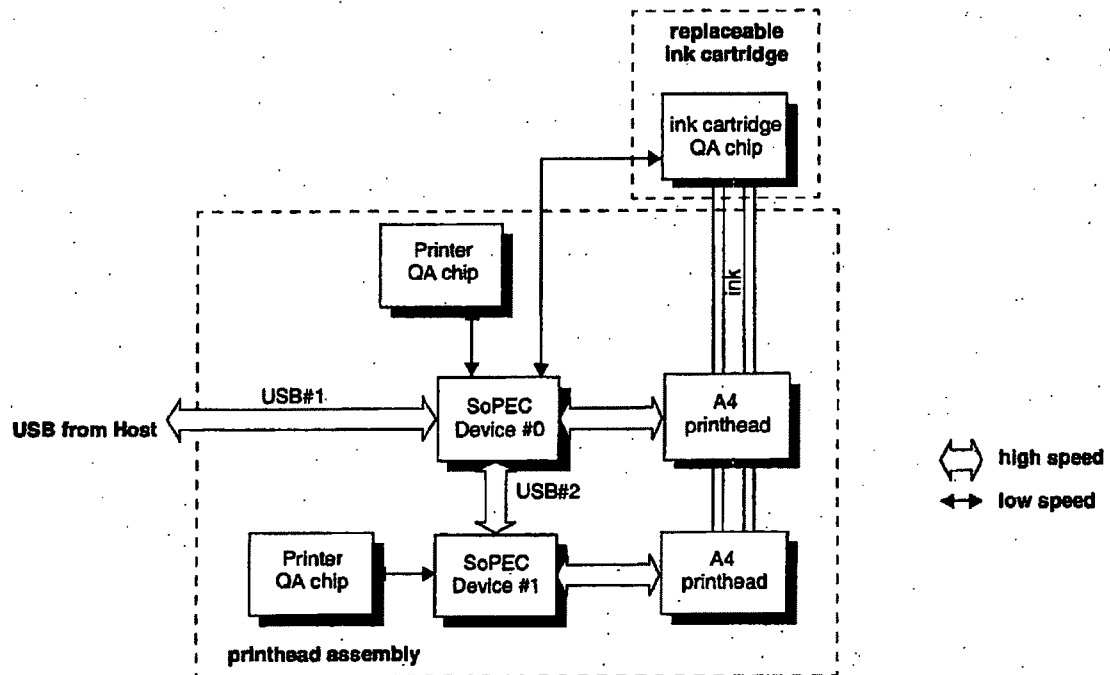


FIG. 4

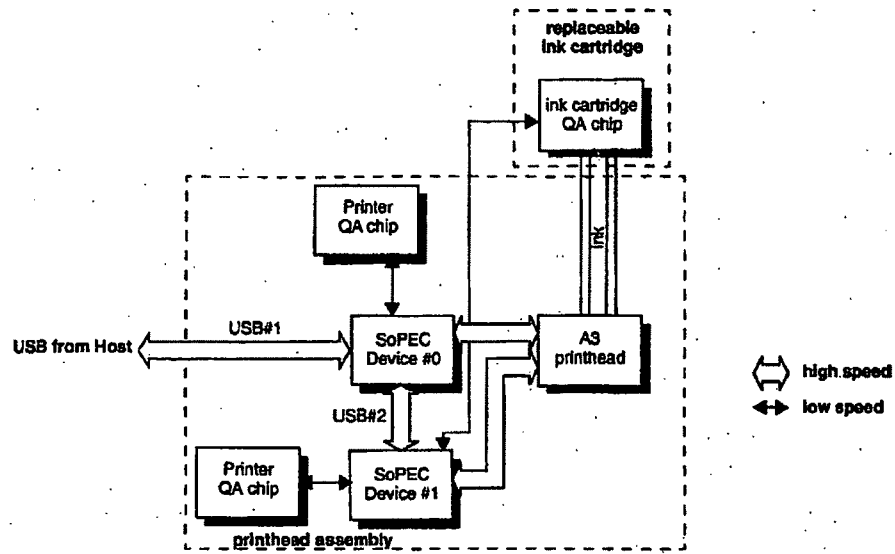


FIG. 5

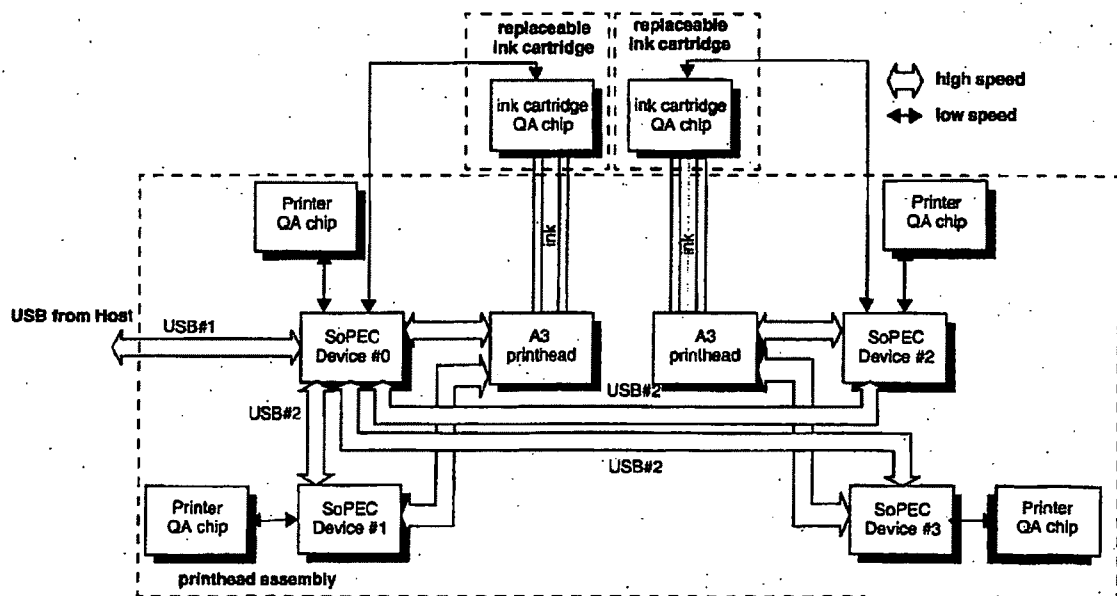


FIG. 6

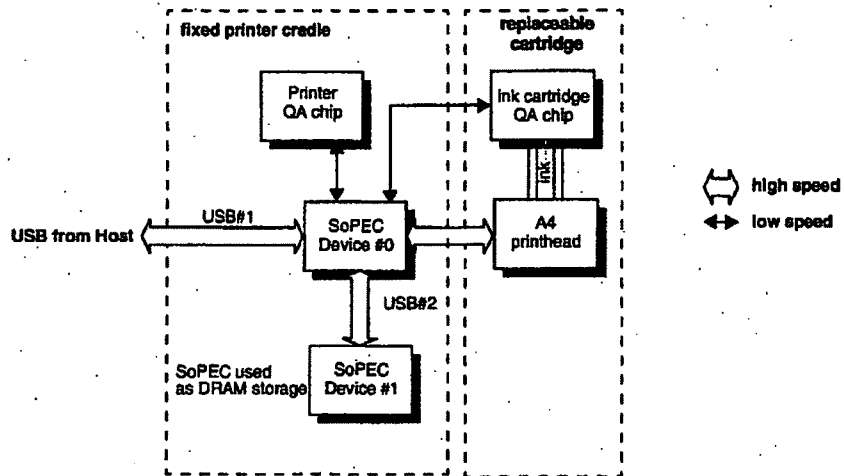


FIG. 7

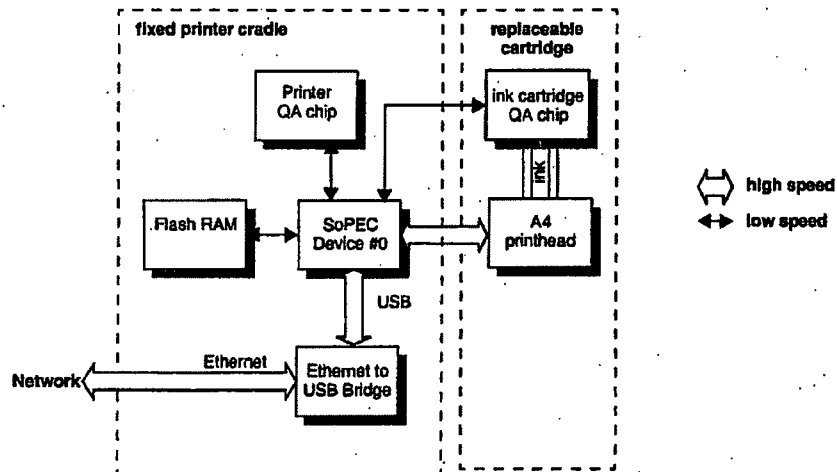


FIG. 8

5/223

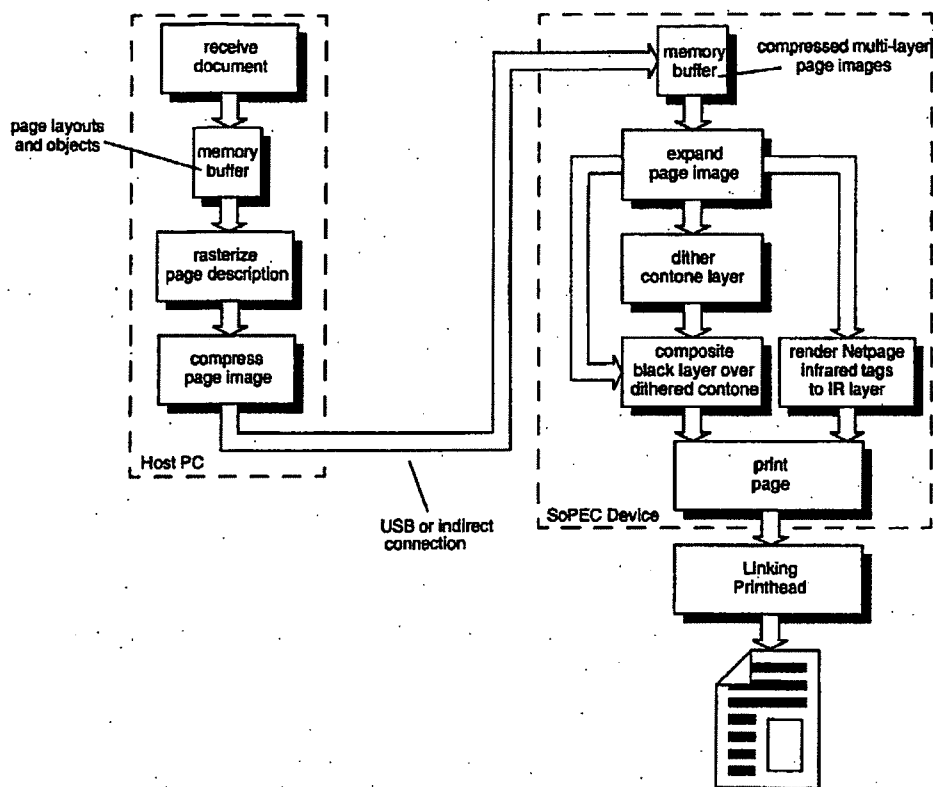


FIG. 9

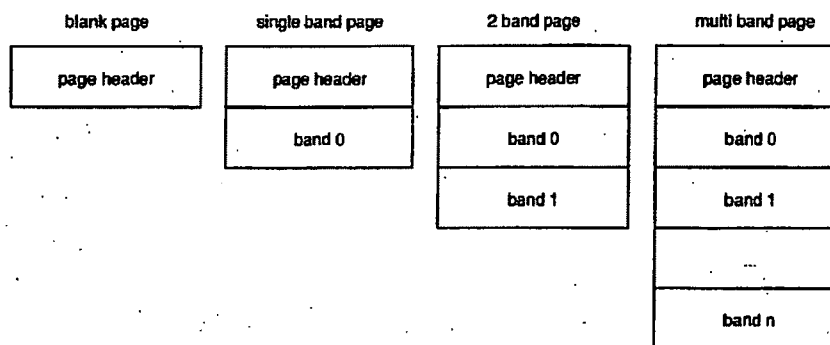


FIG. 10

6/223

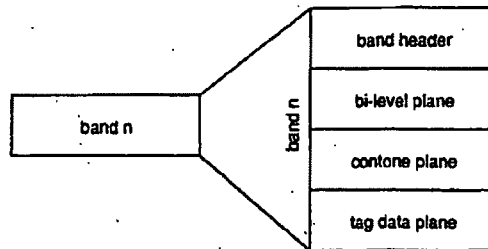


FIG. 11

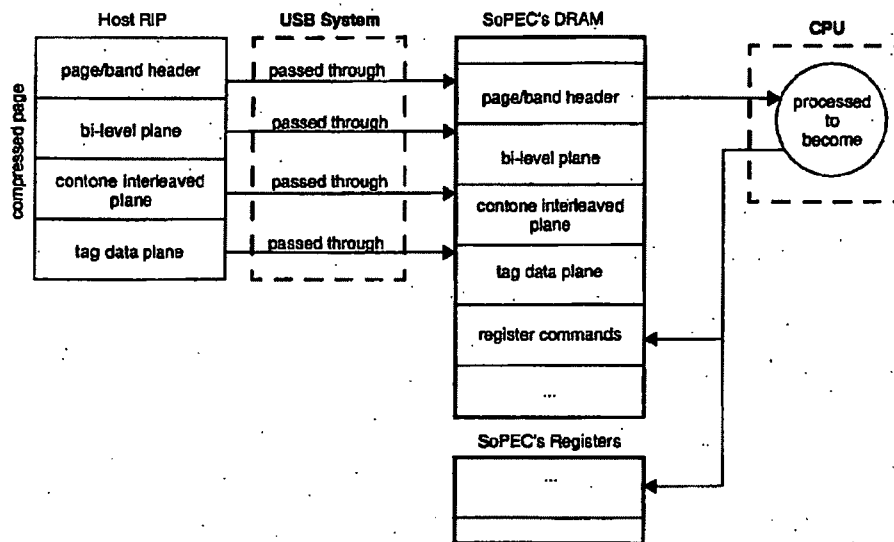


FIG. 12

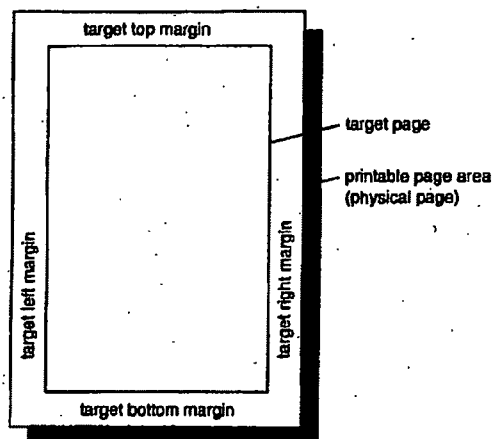


FIG. 13

7/223

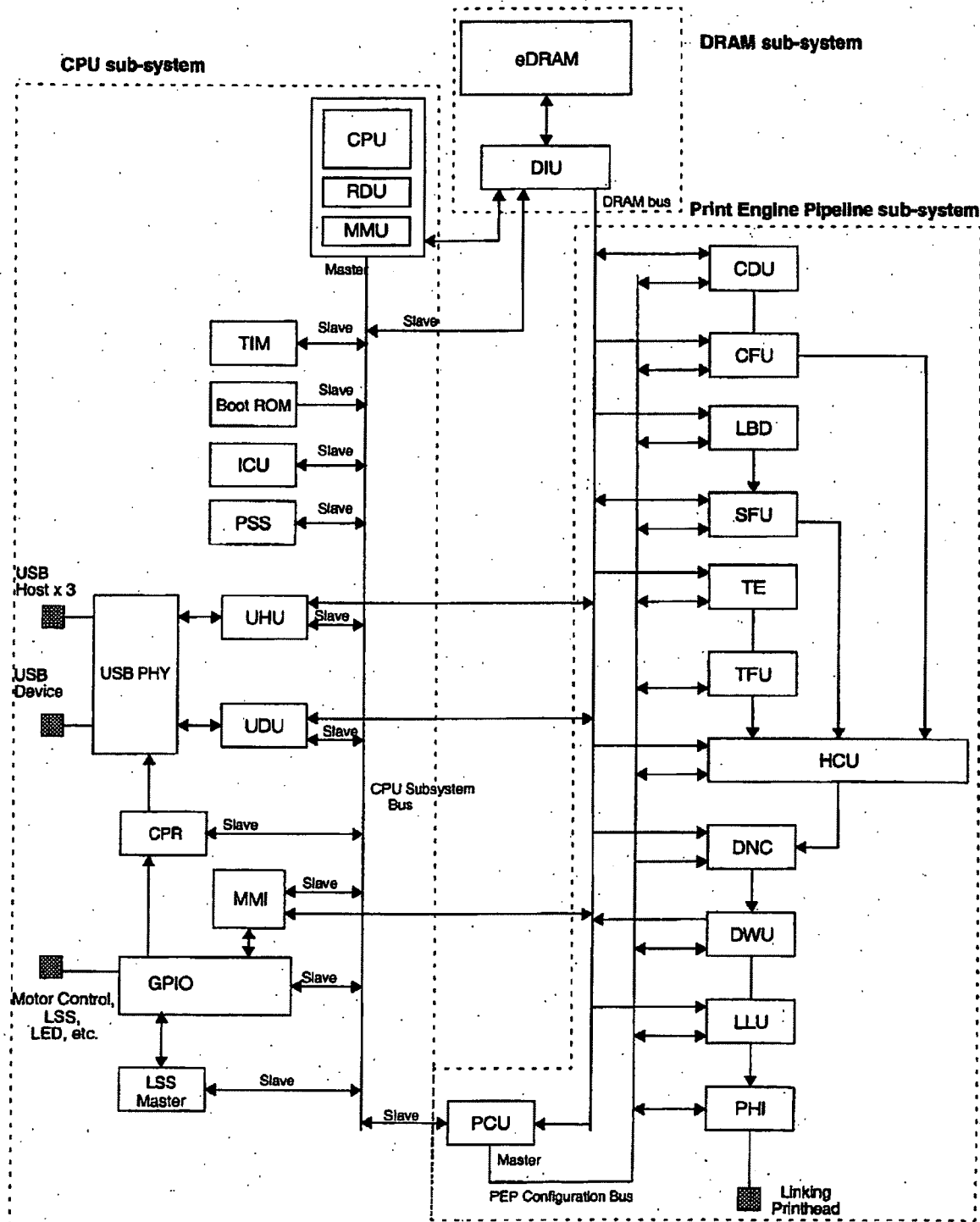


FIG. 14

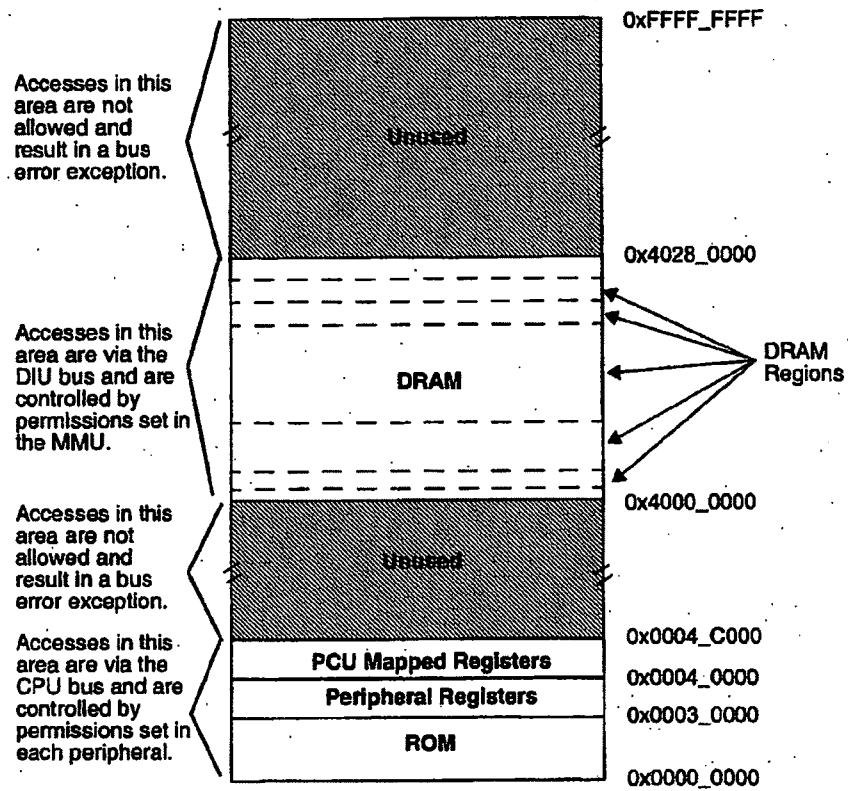
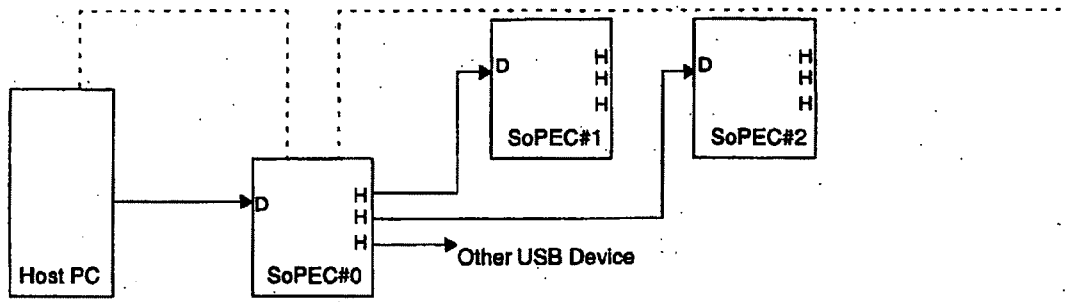
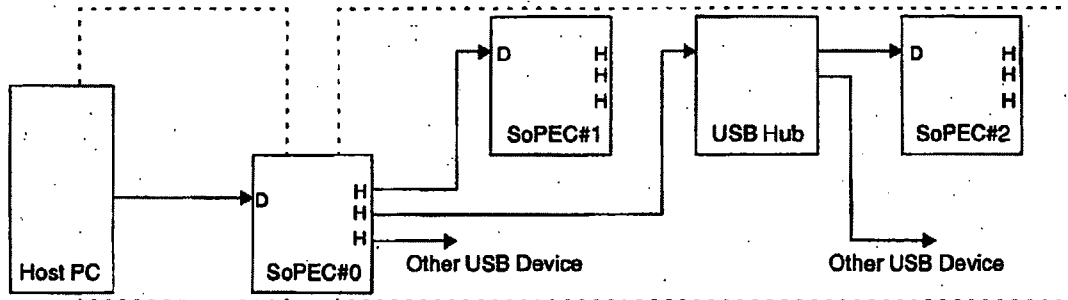


FIG. 15

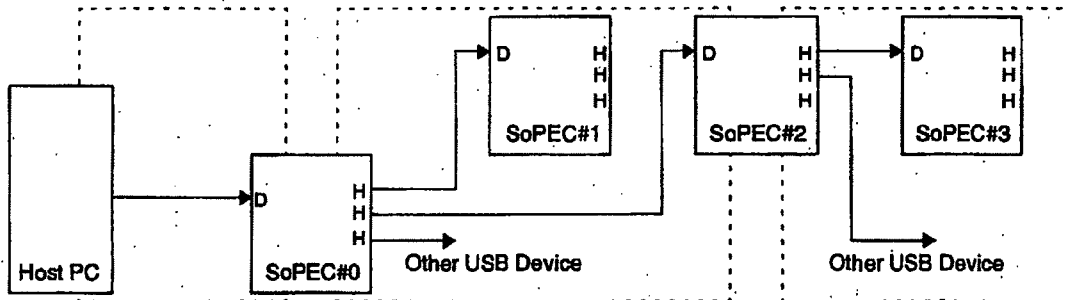
9/223



Case 1: One Printer USB Bus with no Hub chips, up to 3 Devices on the bus



Case 2: One Printer USB Bus including Hub chip, more than 3 Devices on the bus



Case 3: Two Printer USB Busses, up to 3 devices on each bus

FIG. 16

10/223

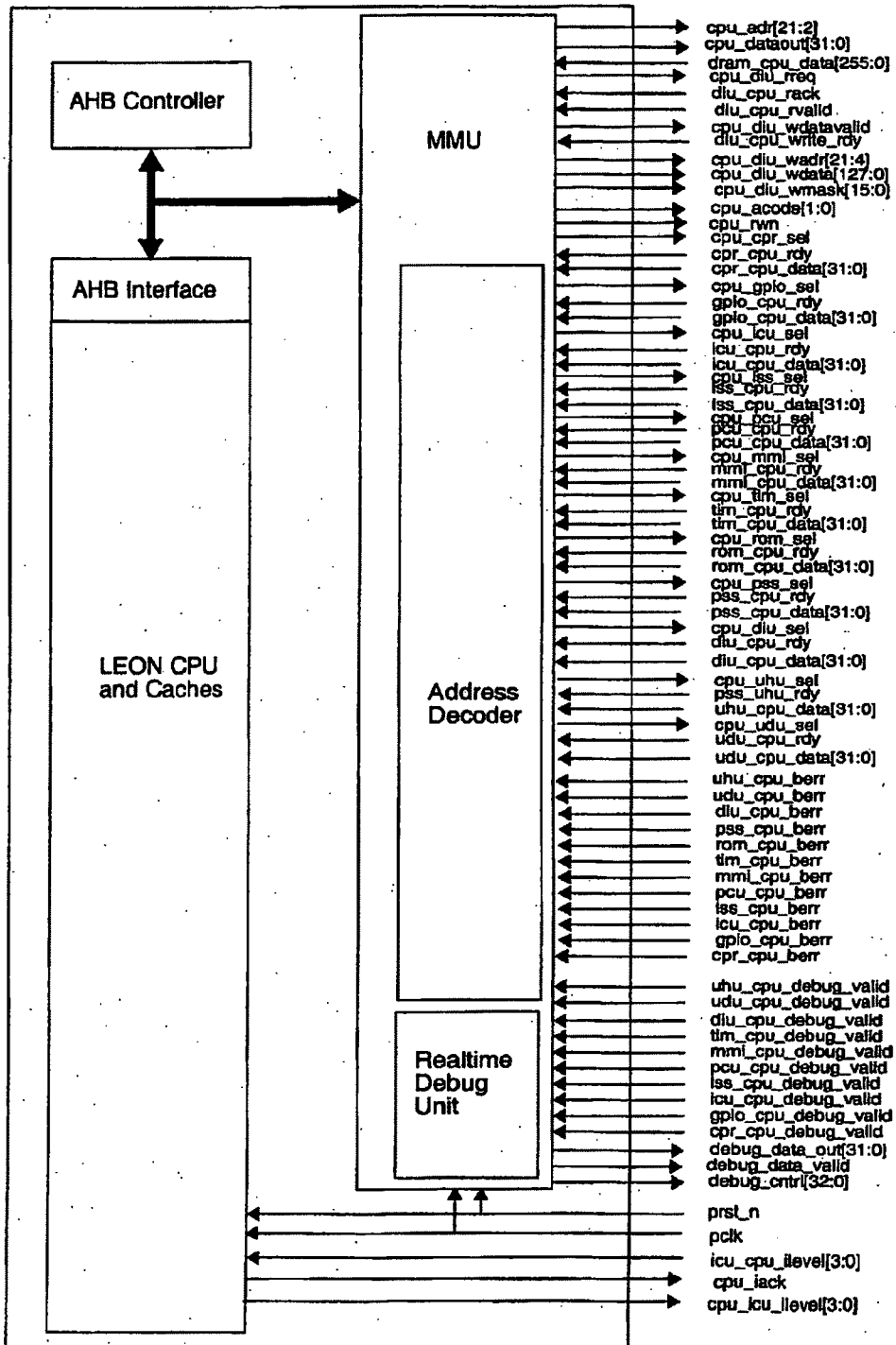


FIG. 17

11/223

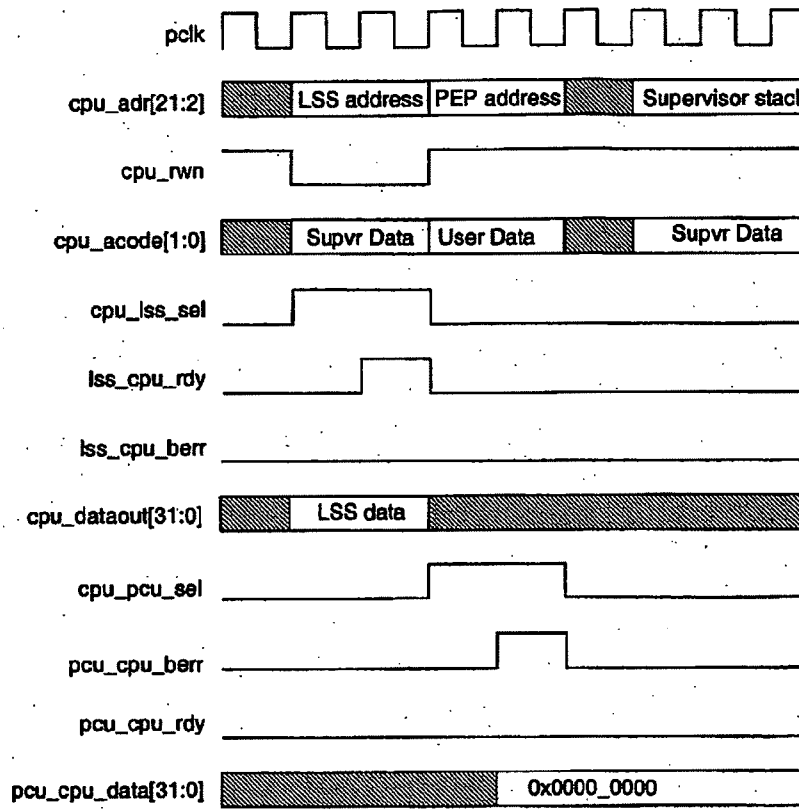


FIG. 18

12/223

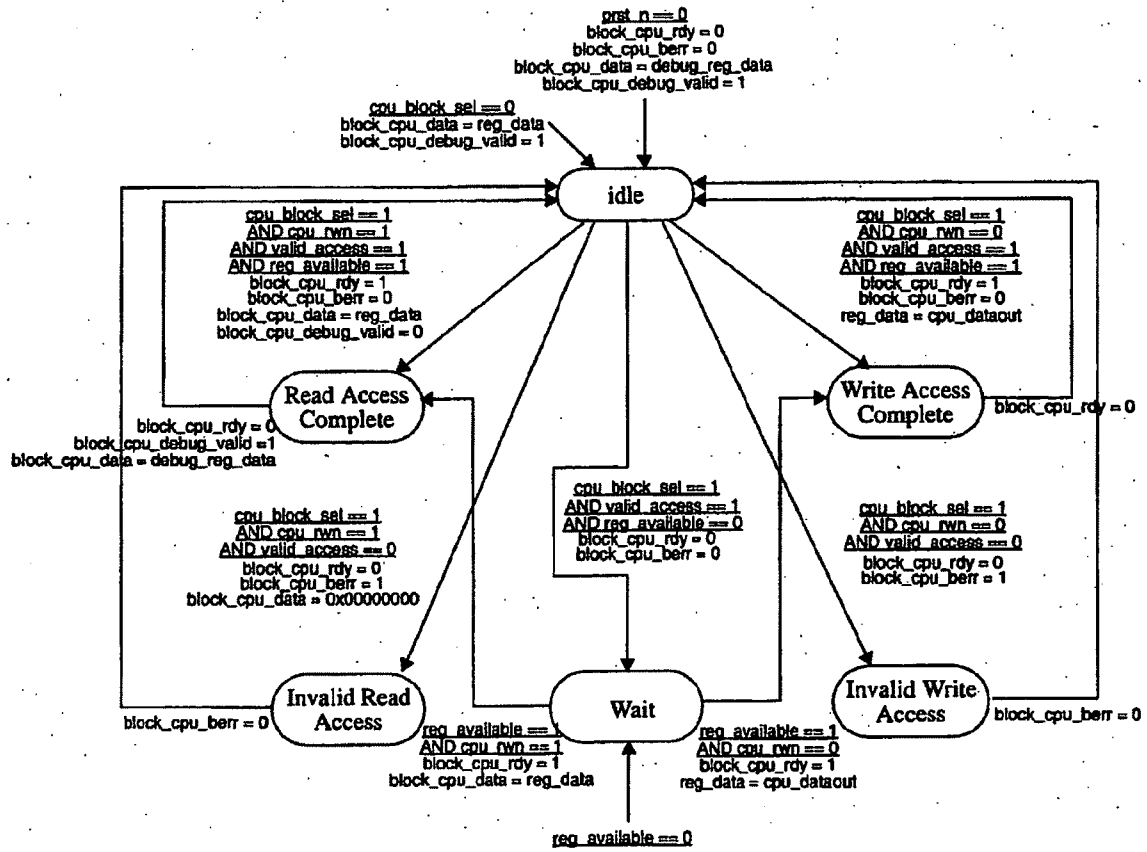


FIG. 19

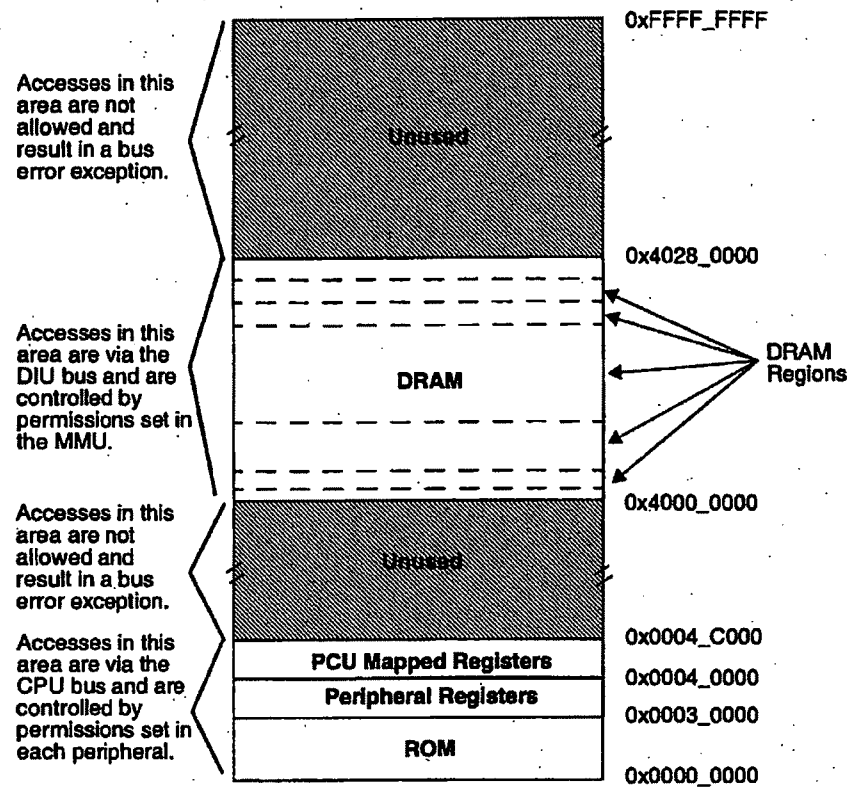


FIG. 20

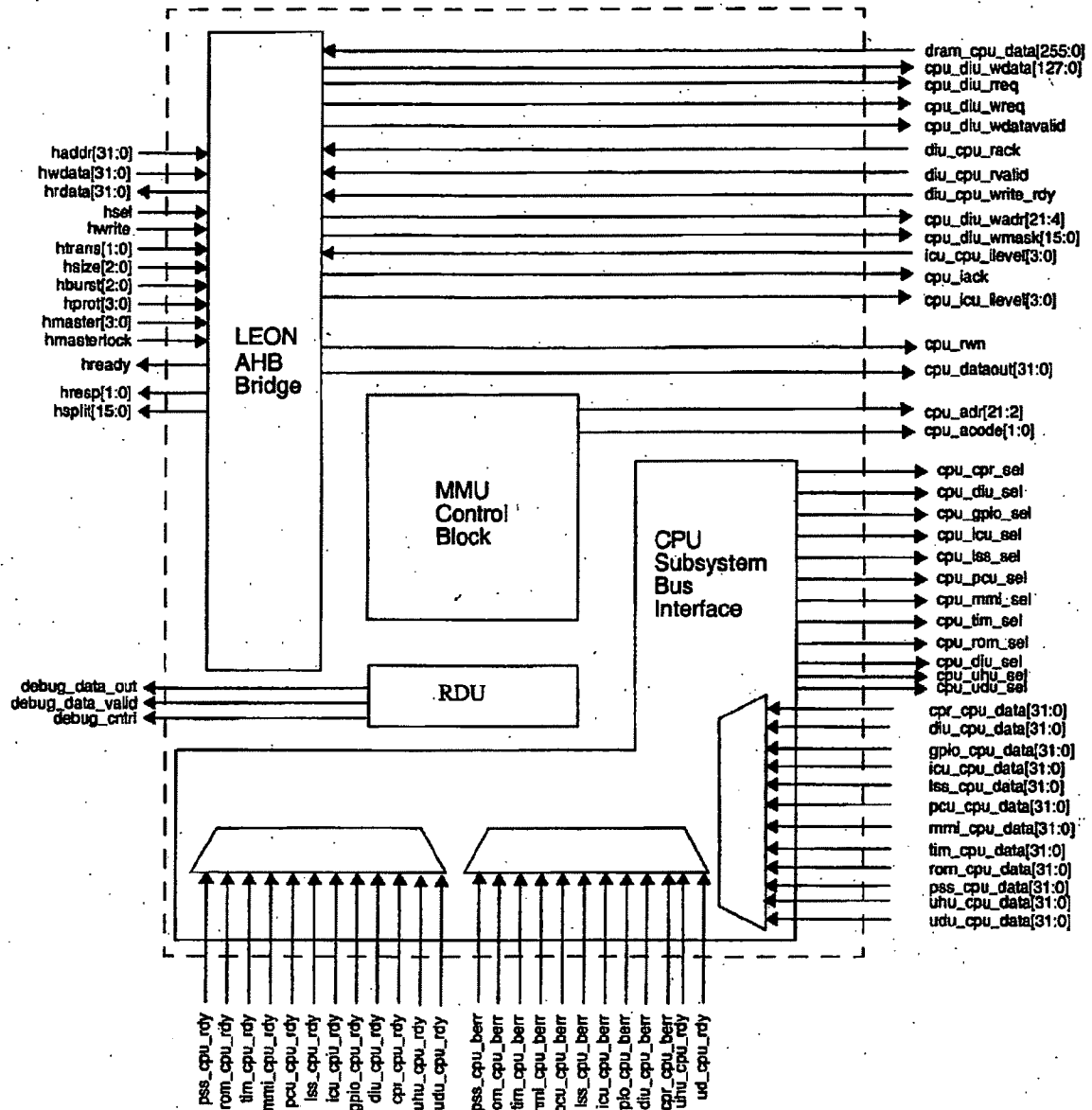


FIG. 21

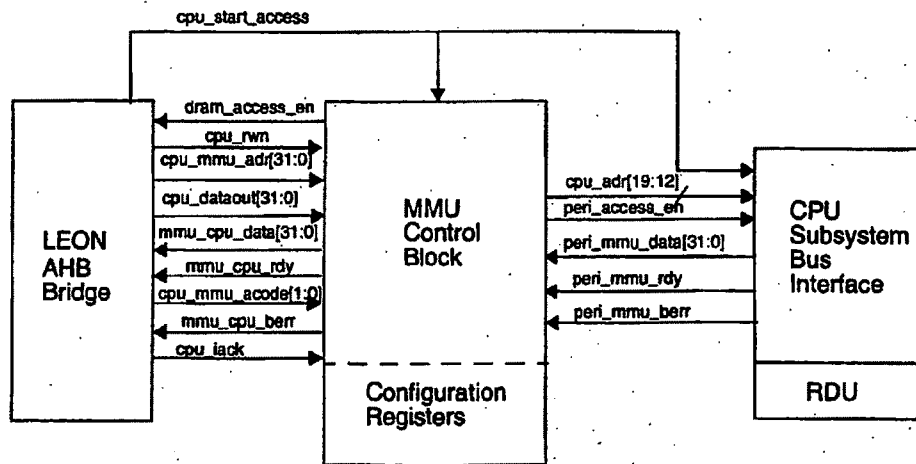


FIG. 22

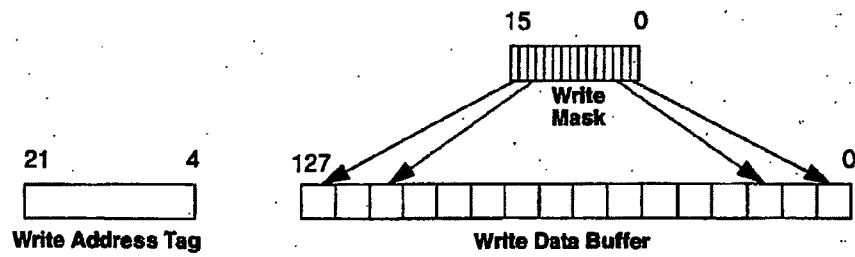


FIG. 23

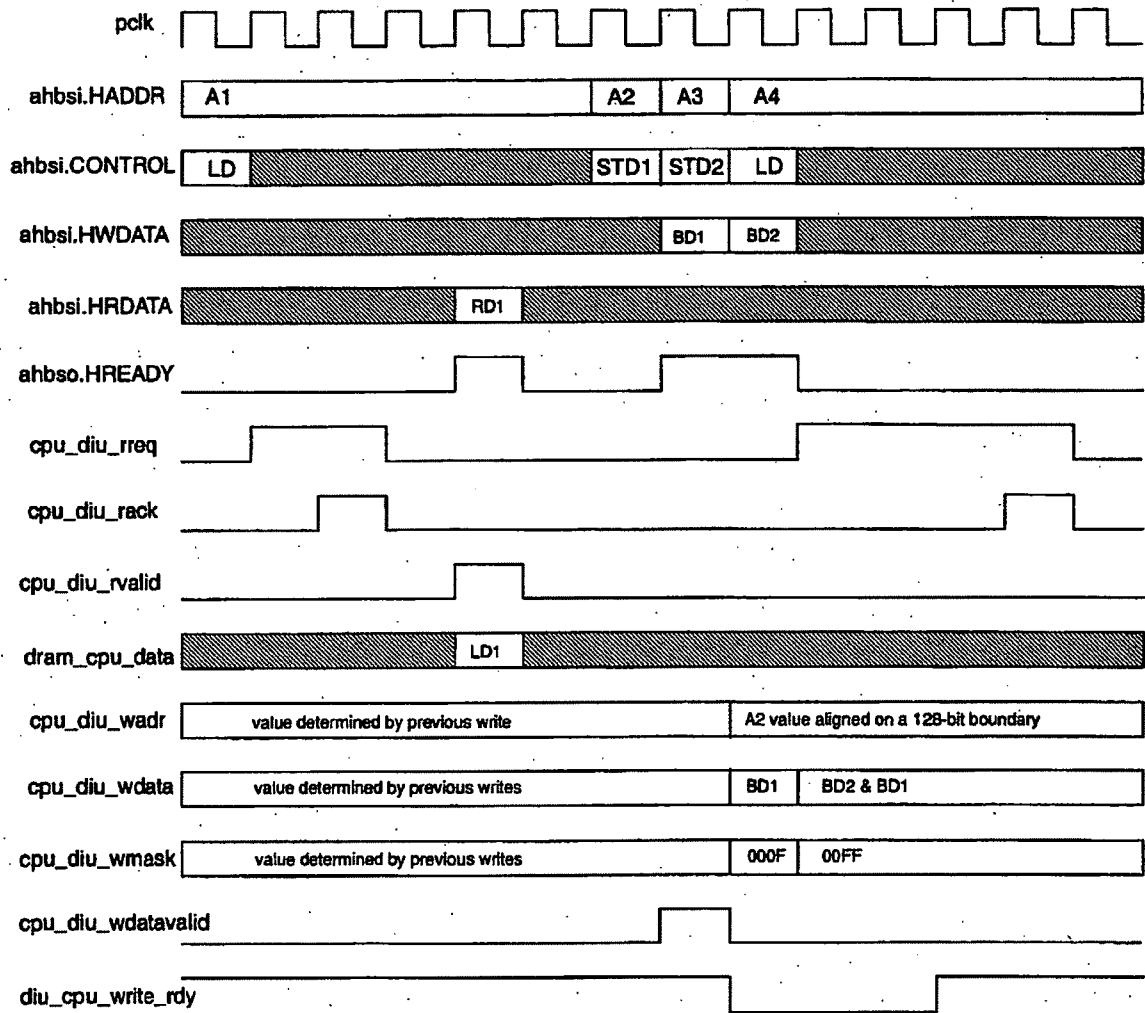


FIG. 24

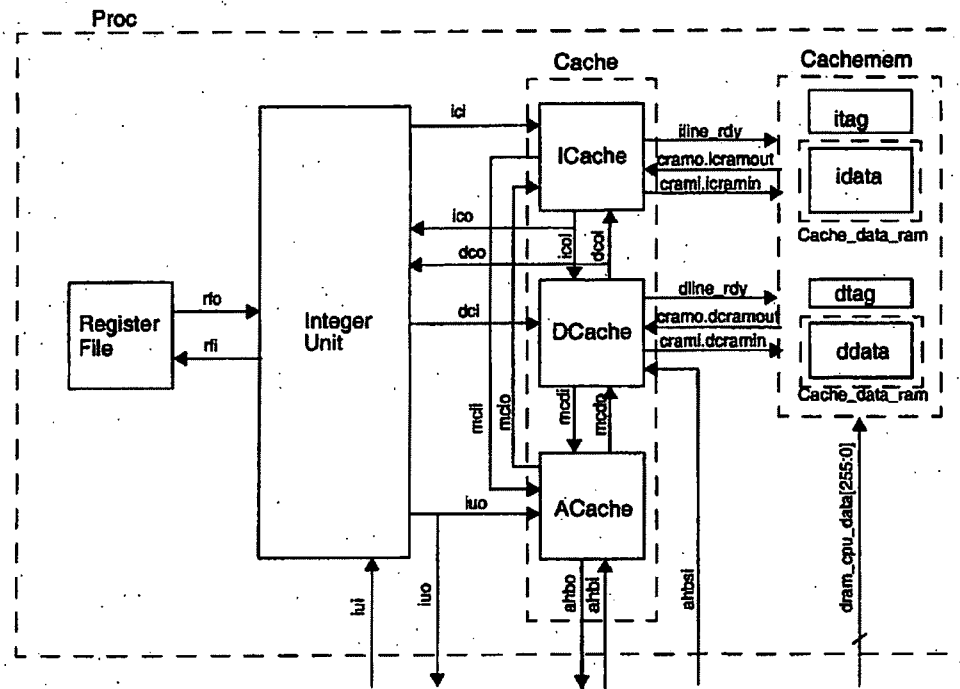


FIG. 25

18/223

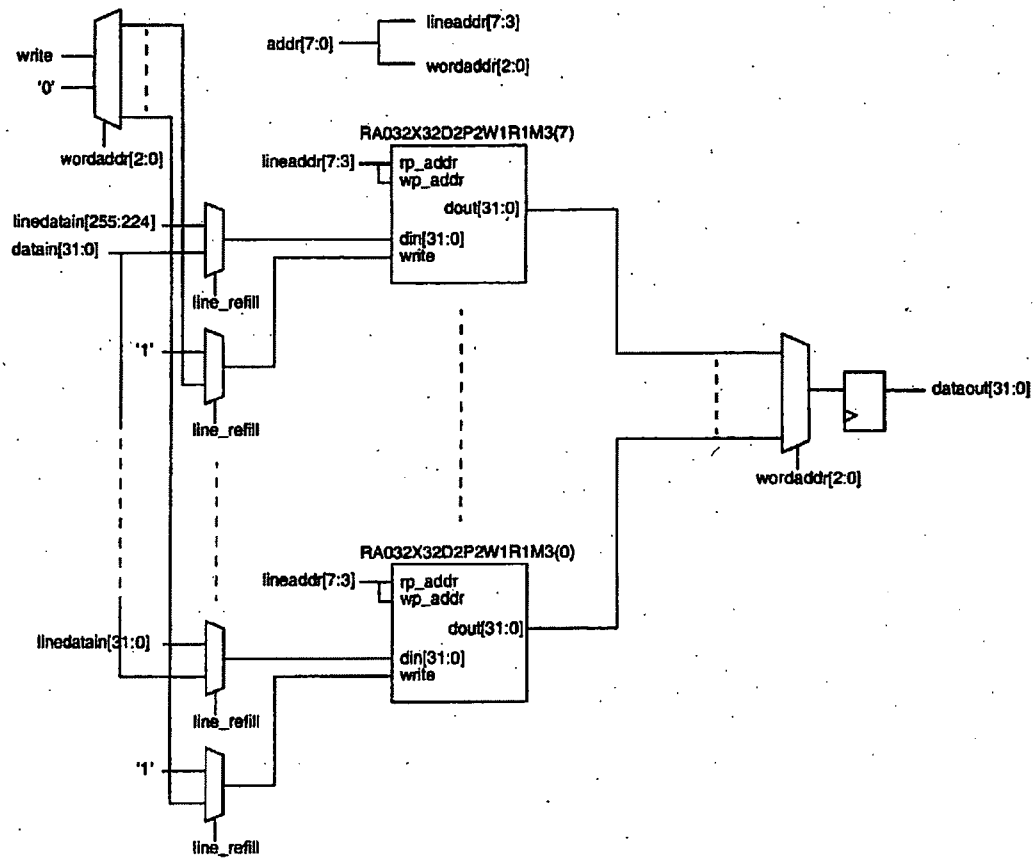


FIG. 26

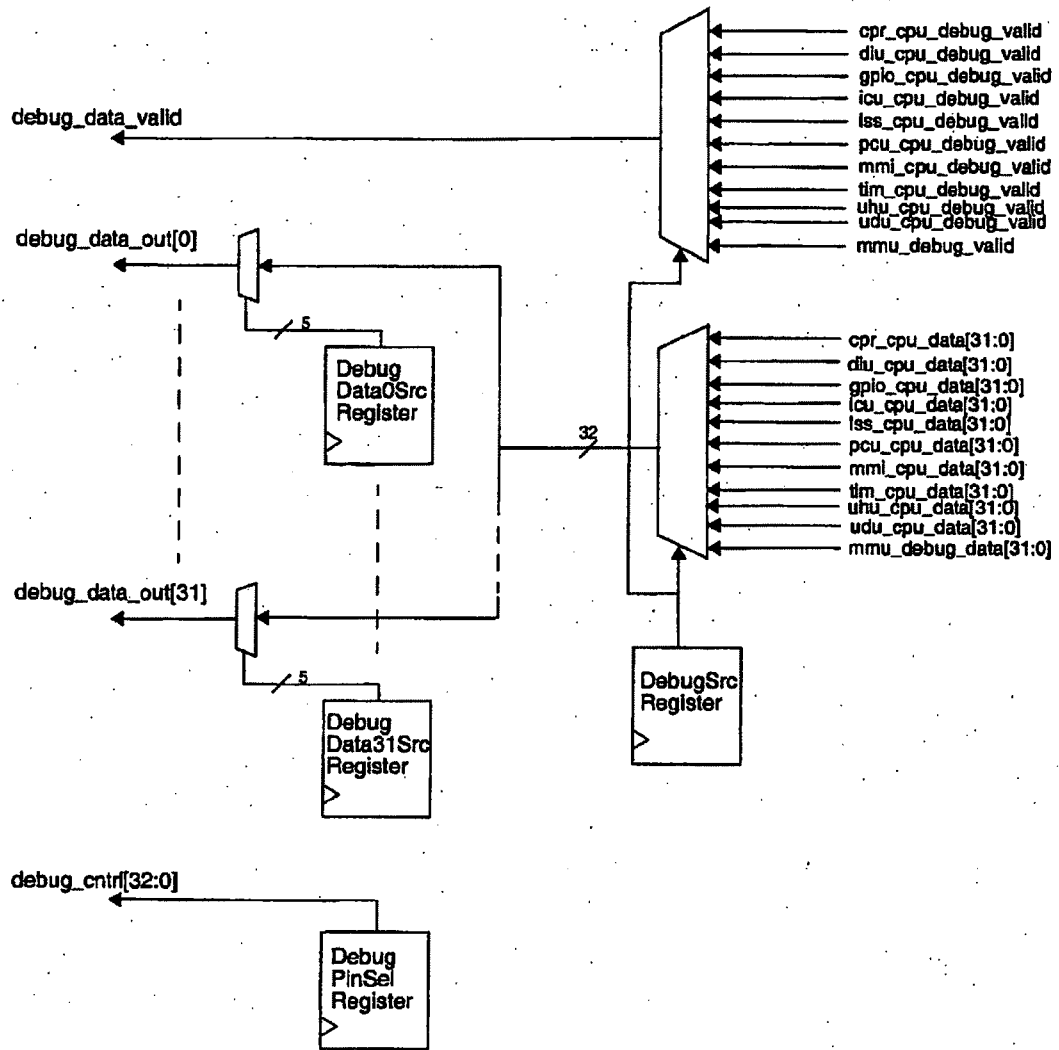


FIG. 27

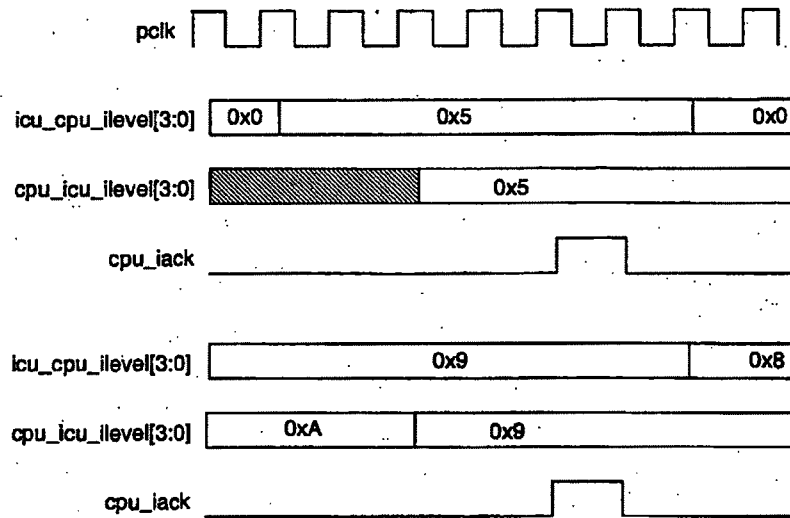


FIG. 28

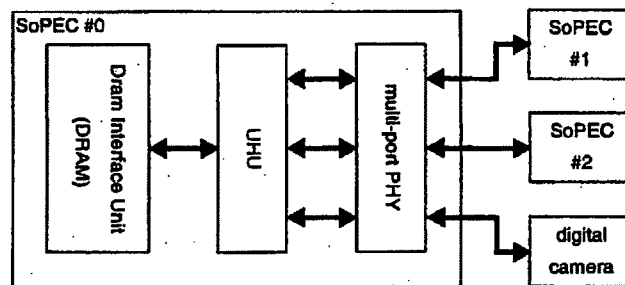


FIG. 29

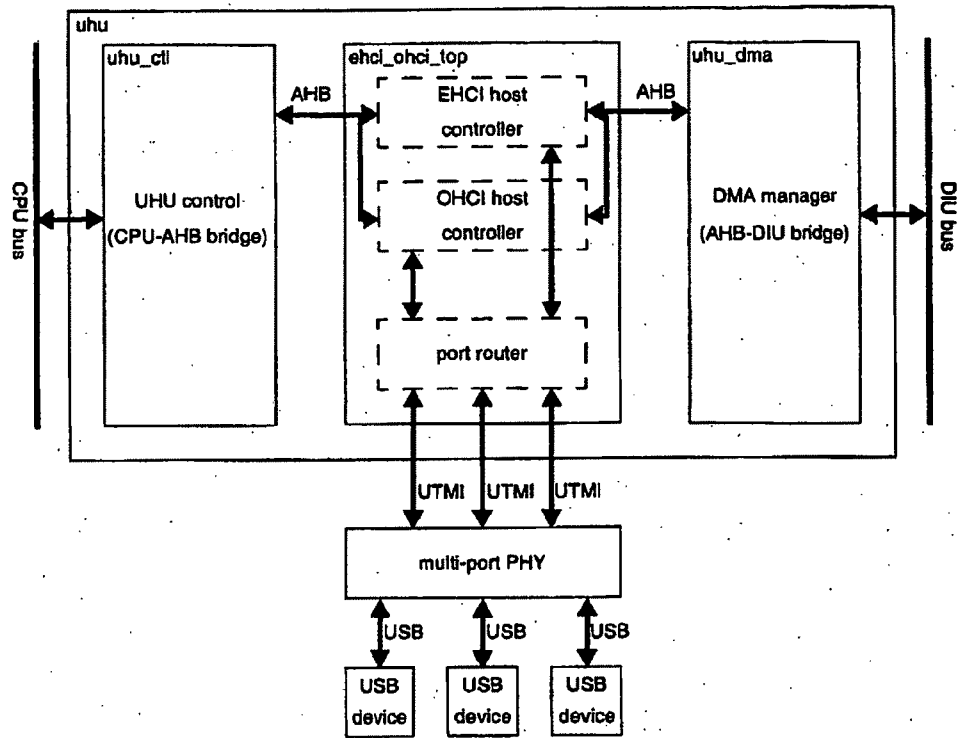


FIG. 30

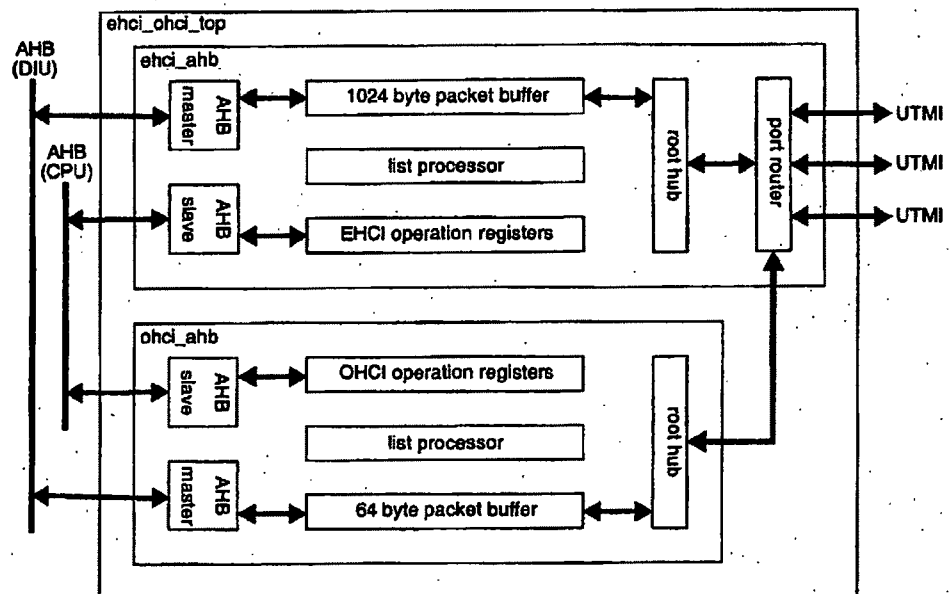


FIG. 31

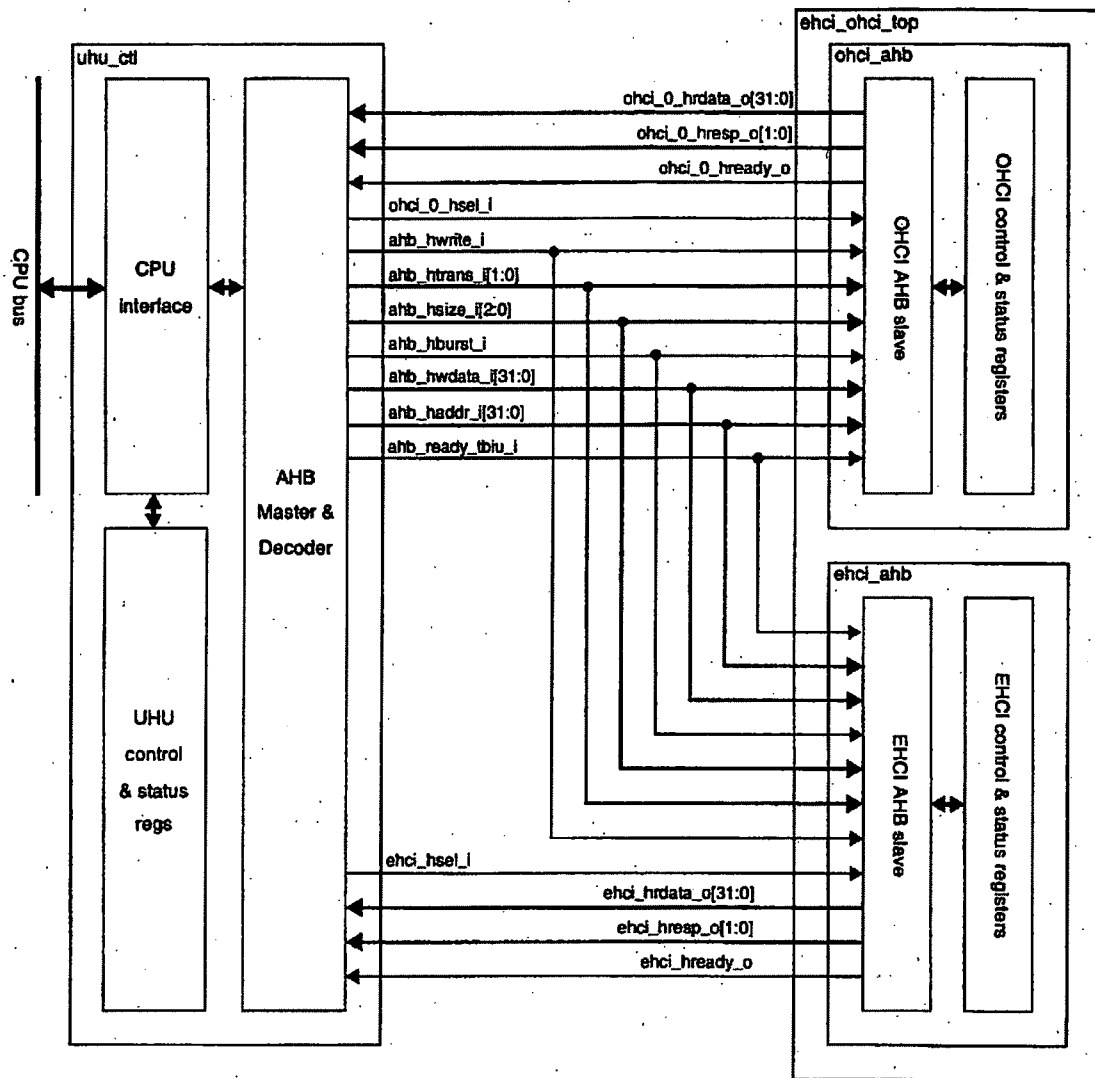


FIG. 32

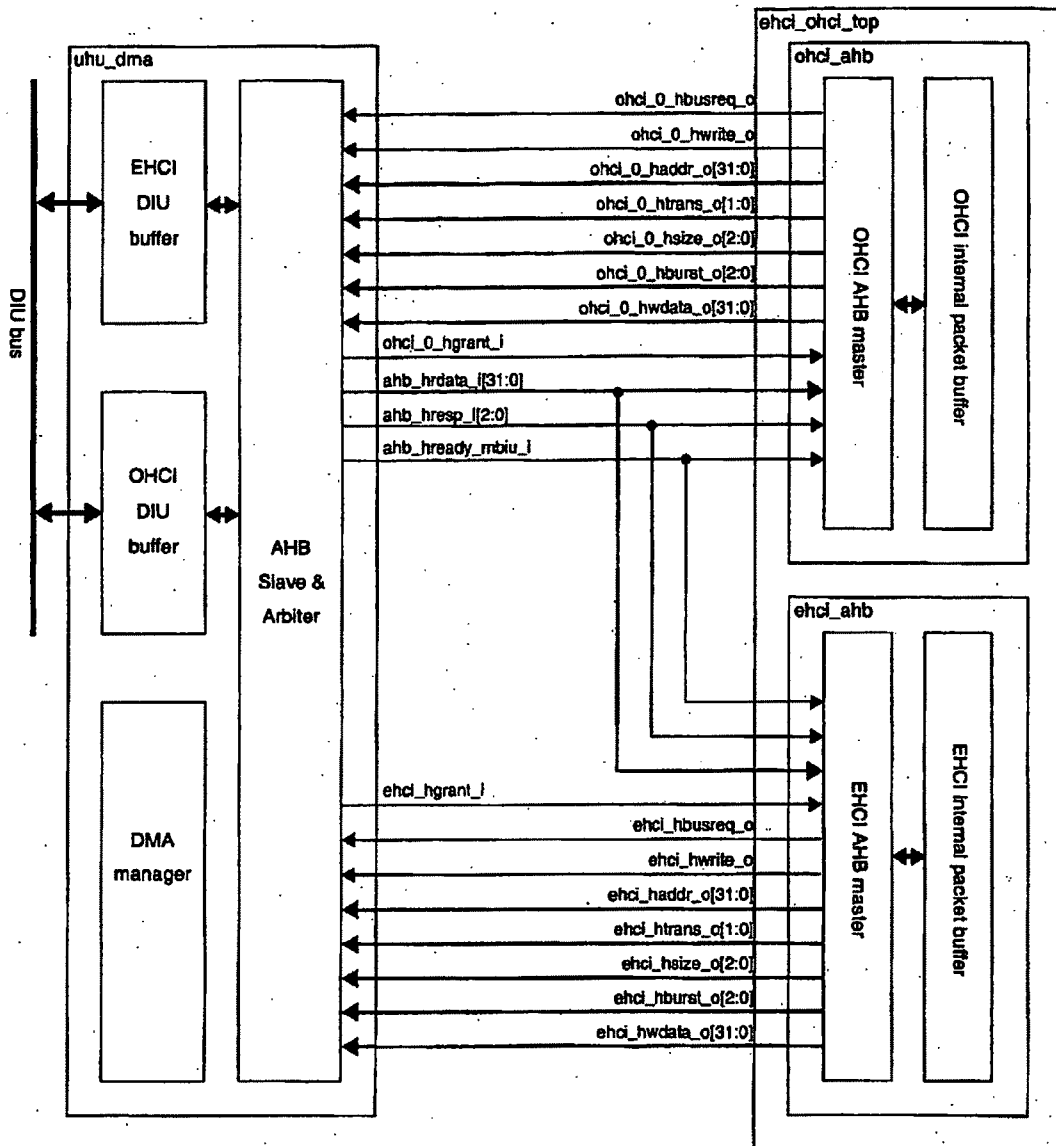


FIG. 33

24/223

(4 x 72 bits)
(4 x 72 bits)

FIG. 34

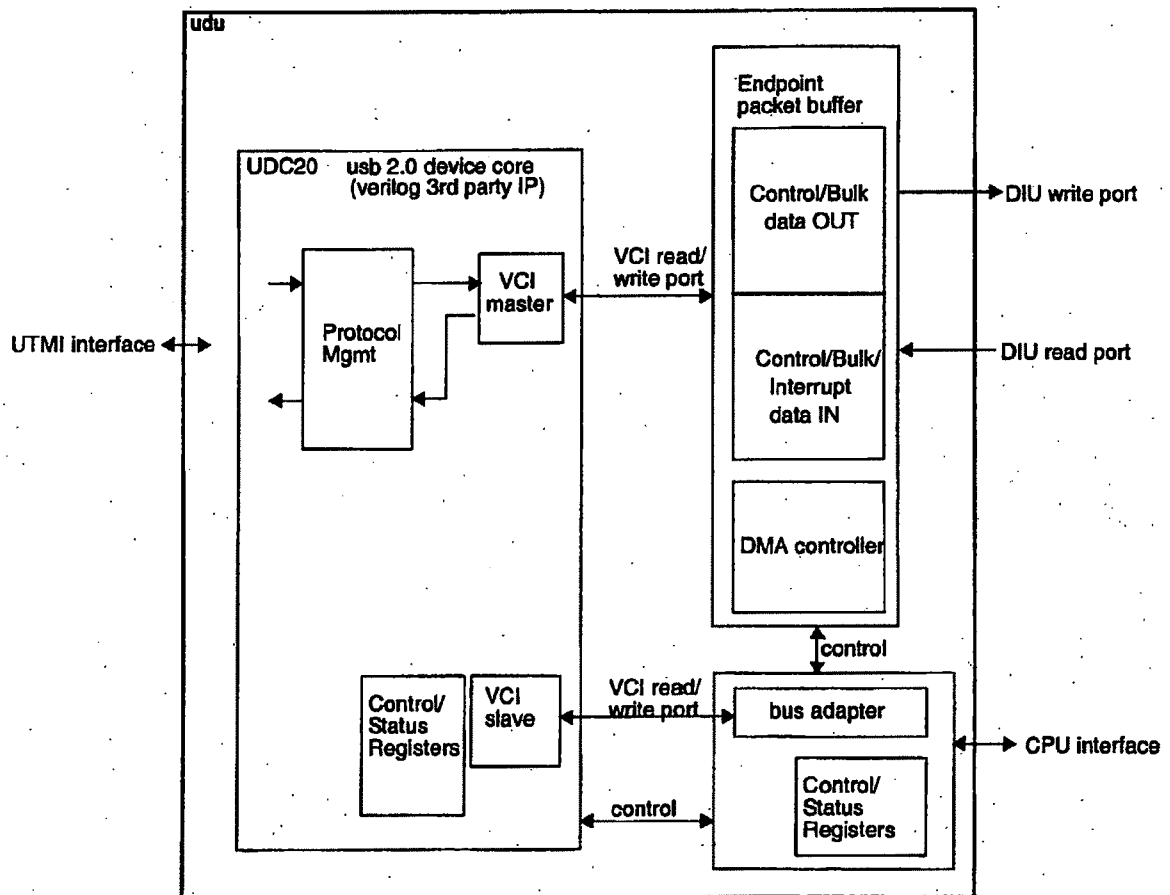


FIG. 35

25/223

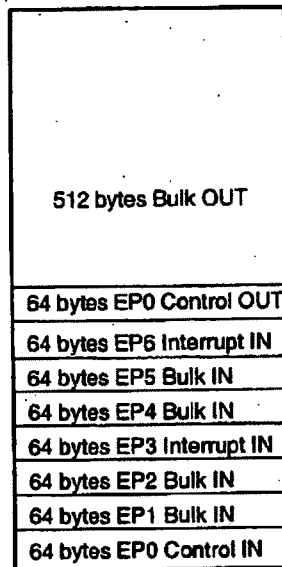
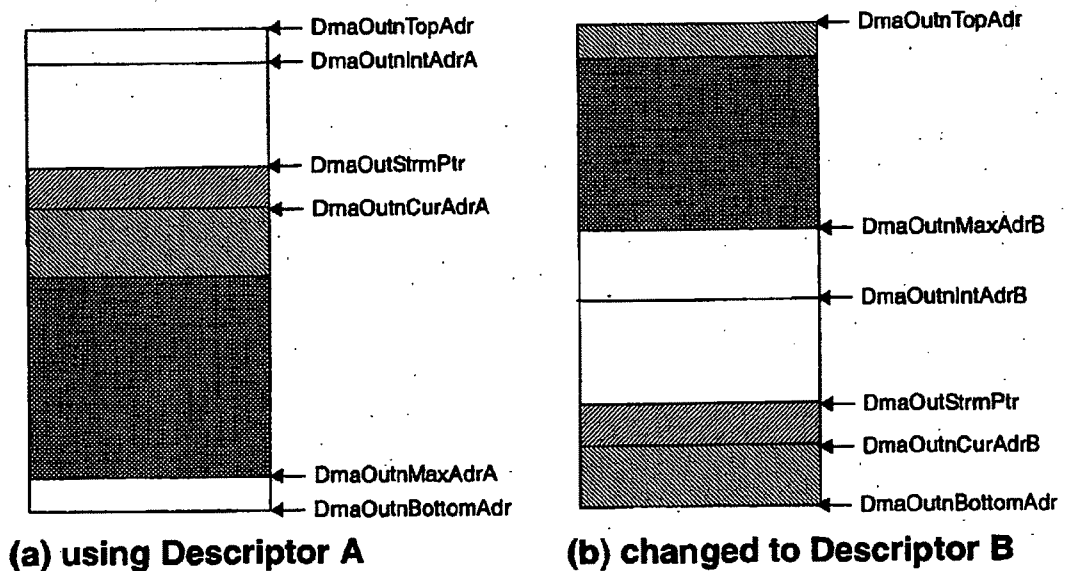


FIG. 36



Key:

- Free buffer space
- Filled buffer space (unprocessed data)
- Buffer space filled since last write to the DMA descriptors
- Buffer space filled with data before packet transfer is completed

FIG. 37

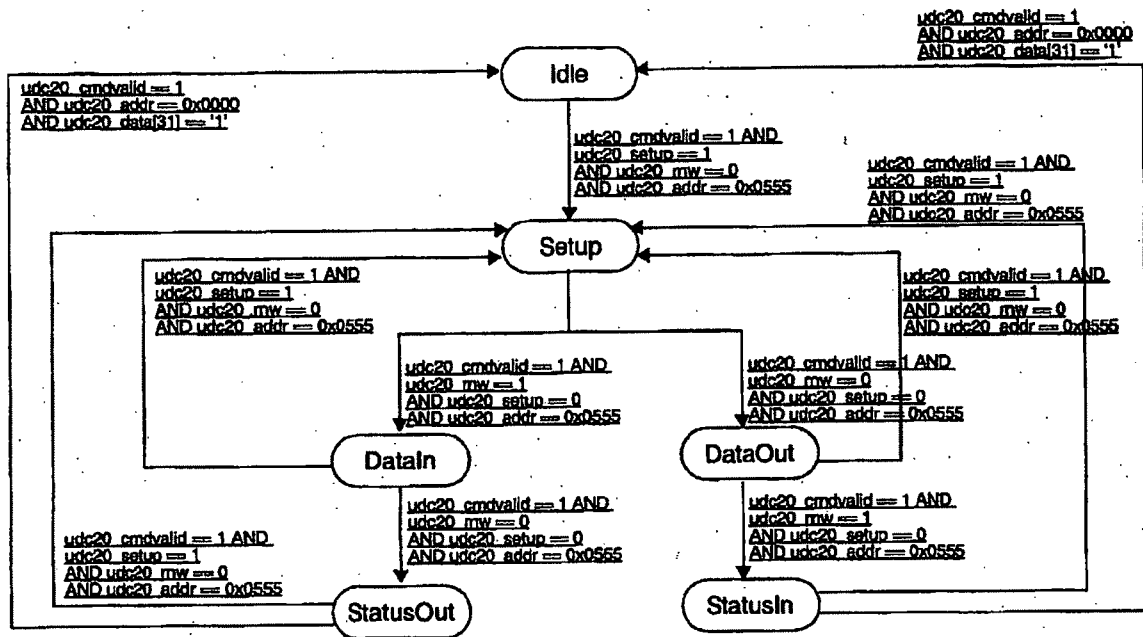


FIG. 38

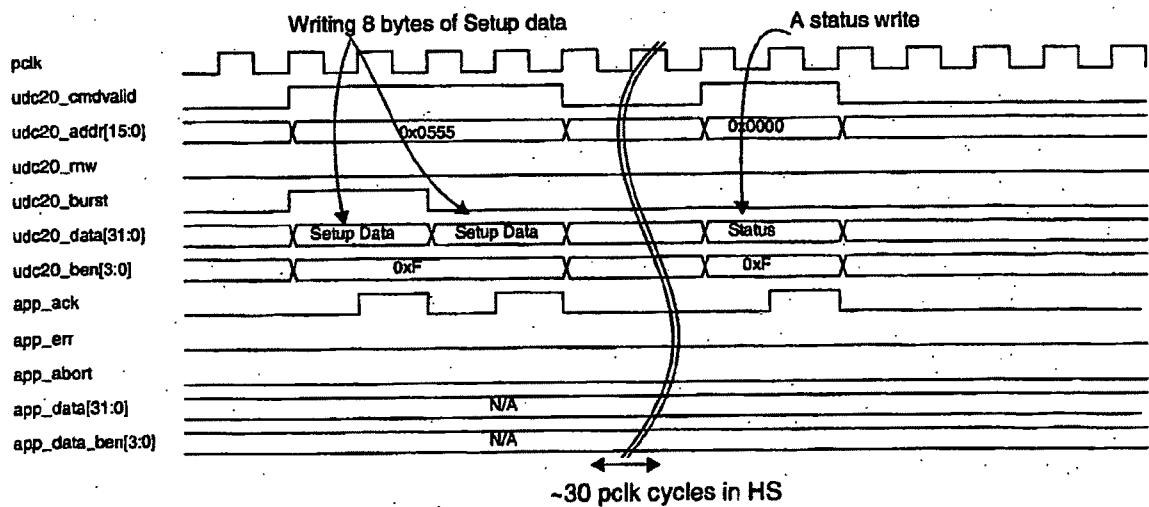


FIG. 39

27/223

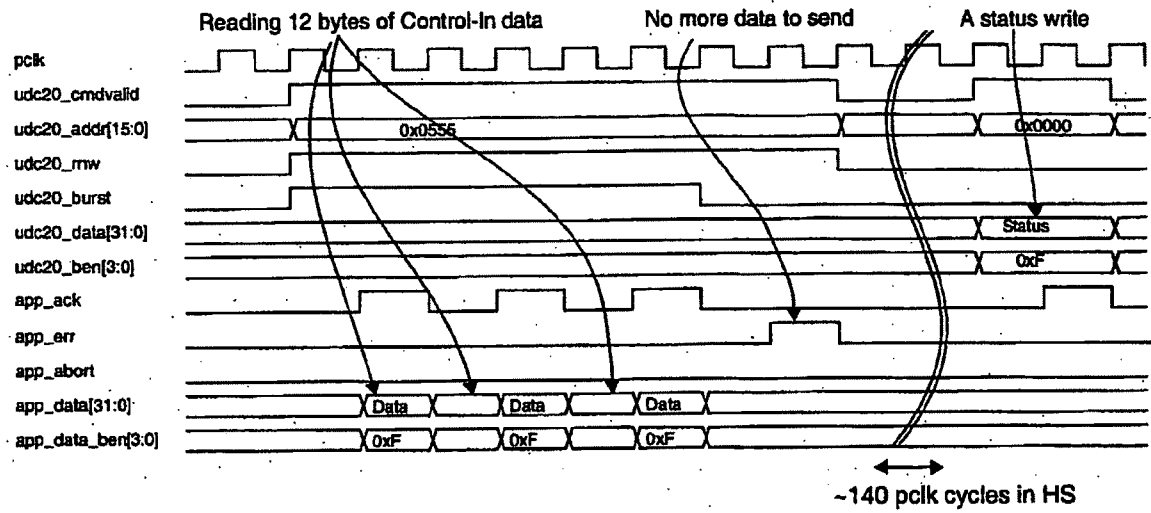


FIG. 40

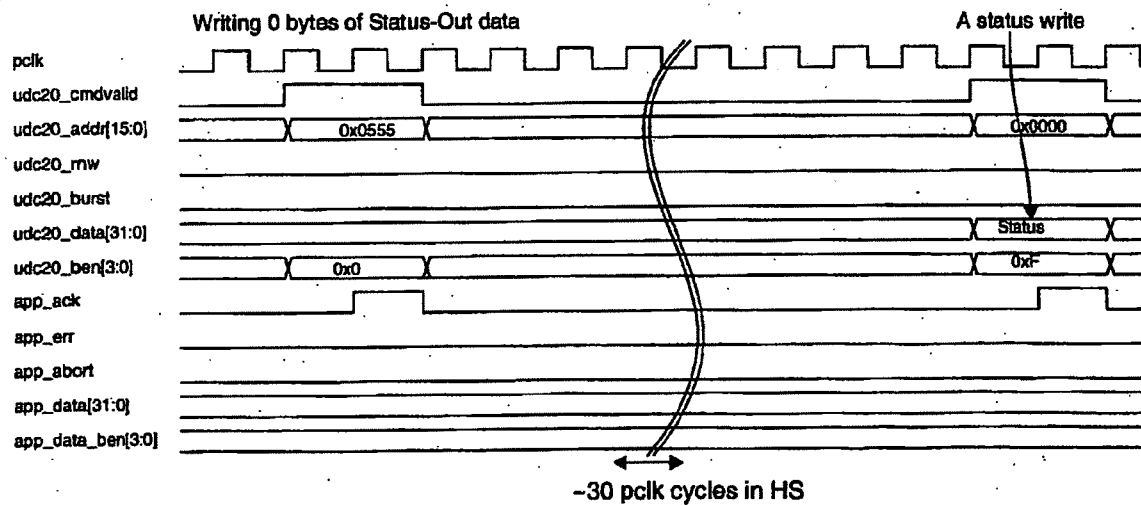


FIG. 41

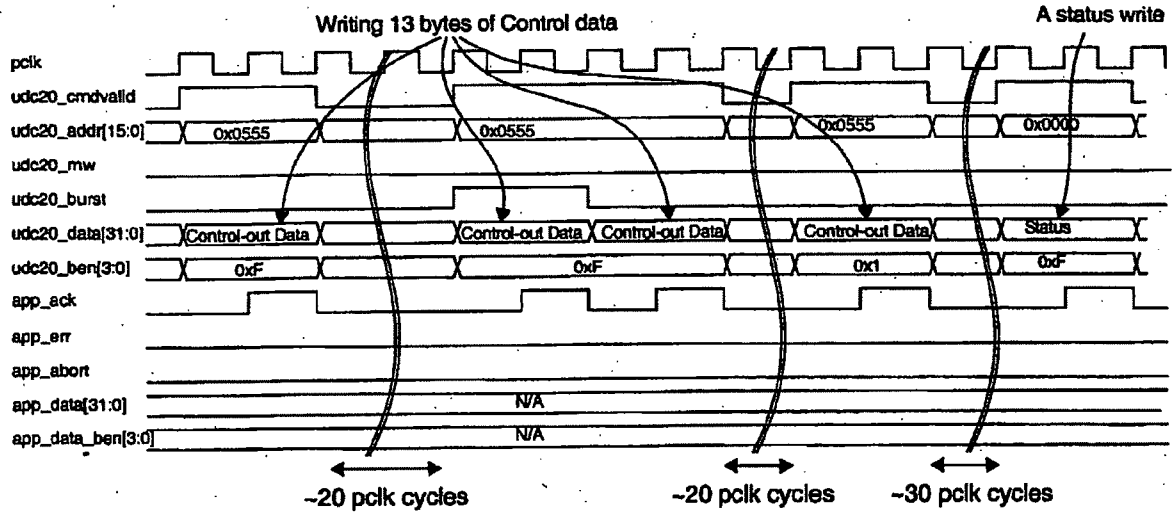


FIG. 42

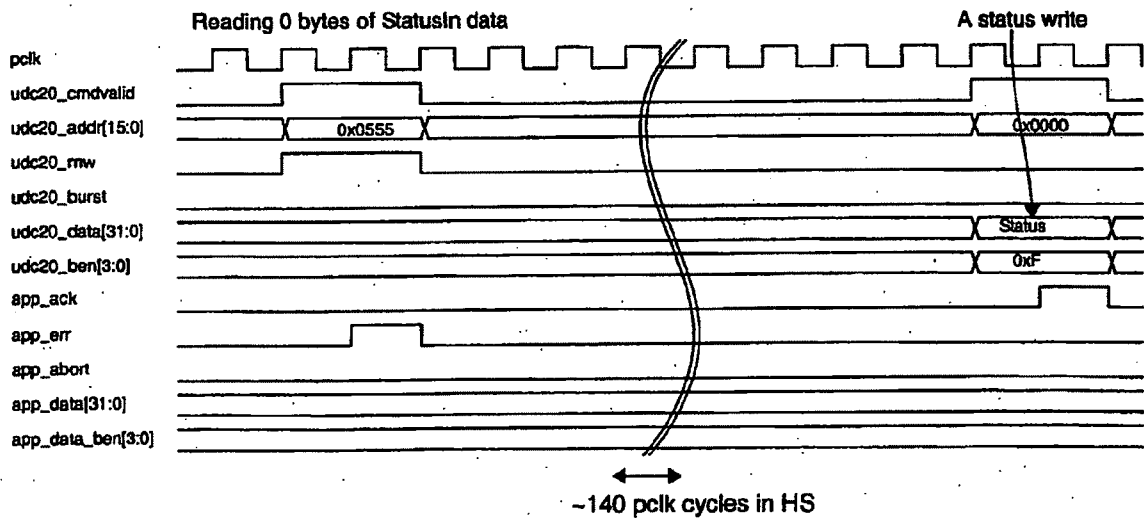


FIG. 43

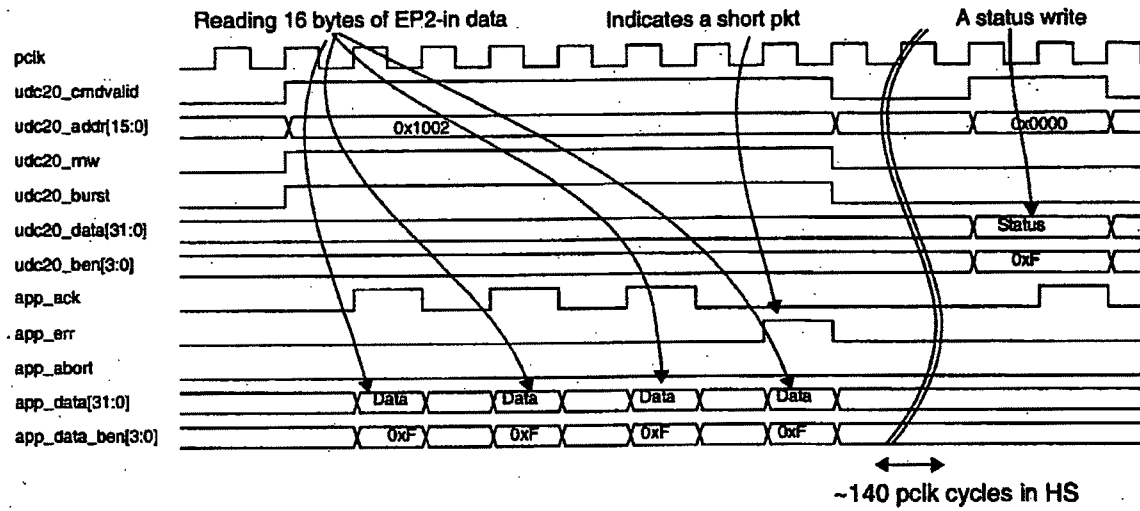


FIG. 44

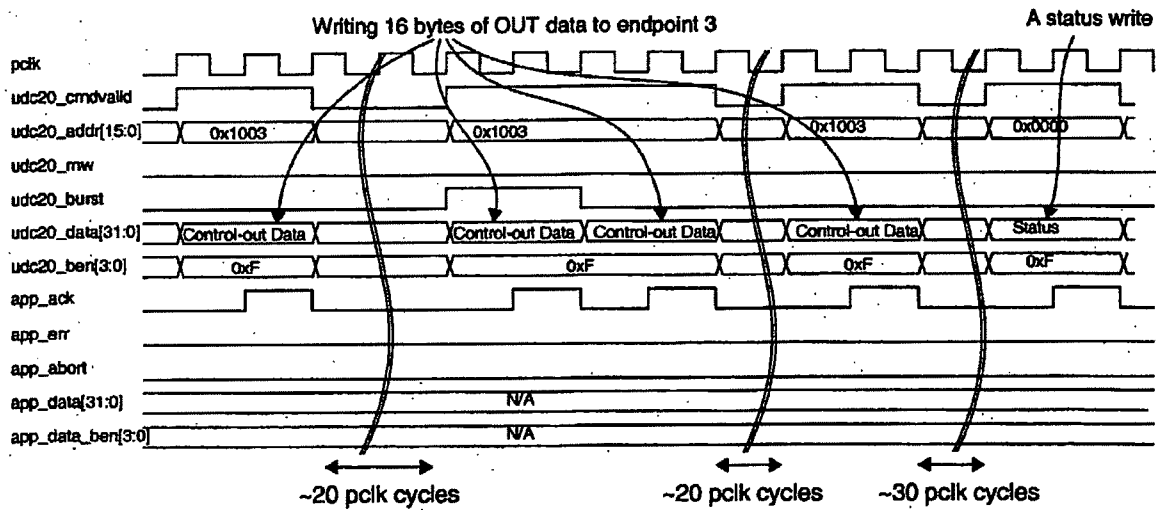


FIG. 45

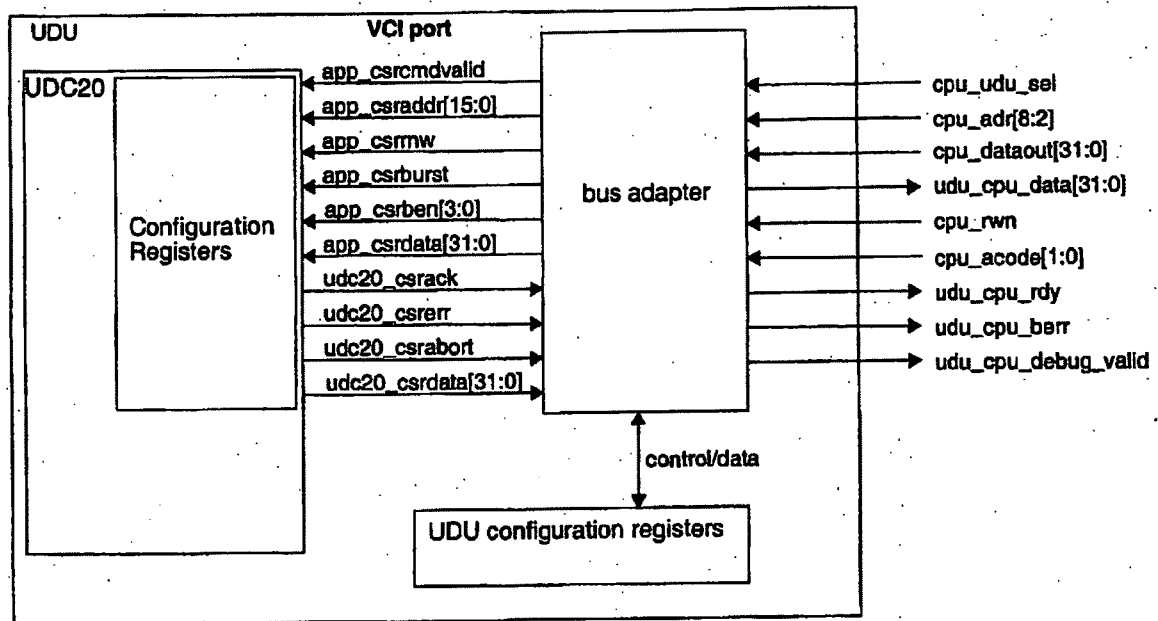


FIG. 46

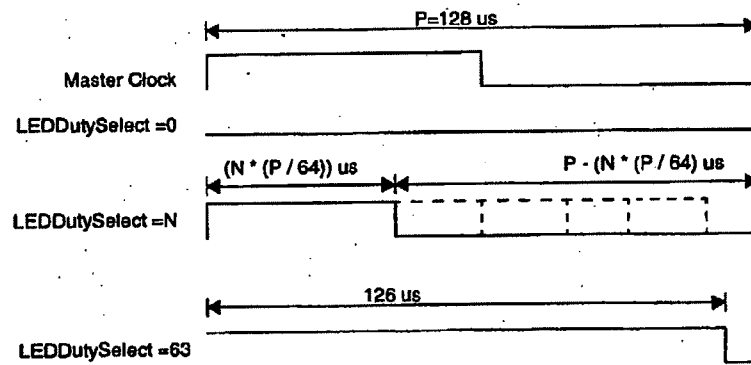


FIG. 47

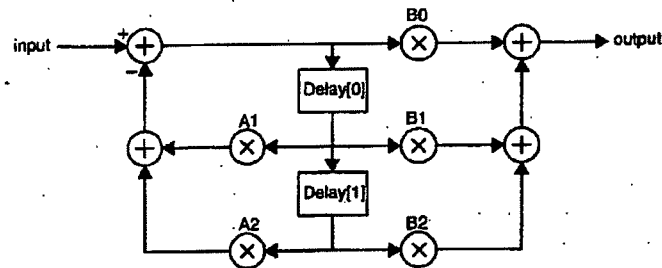


FIG. 48

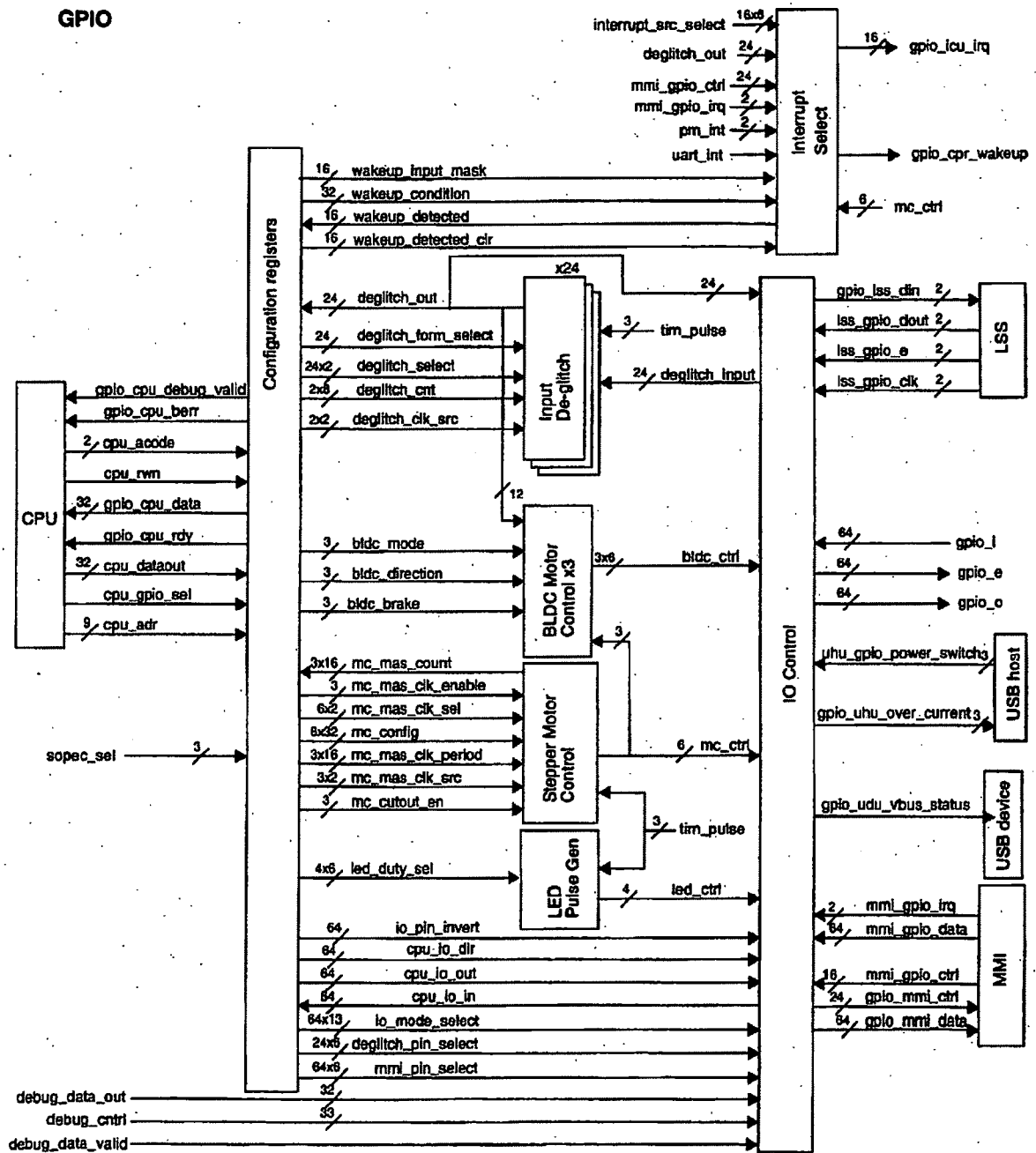


FIG. 49

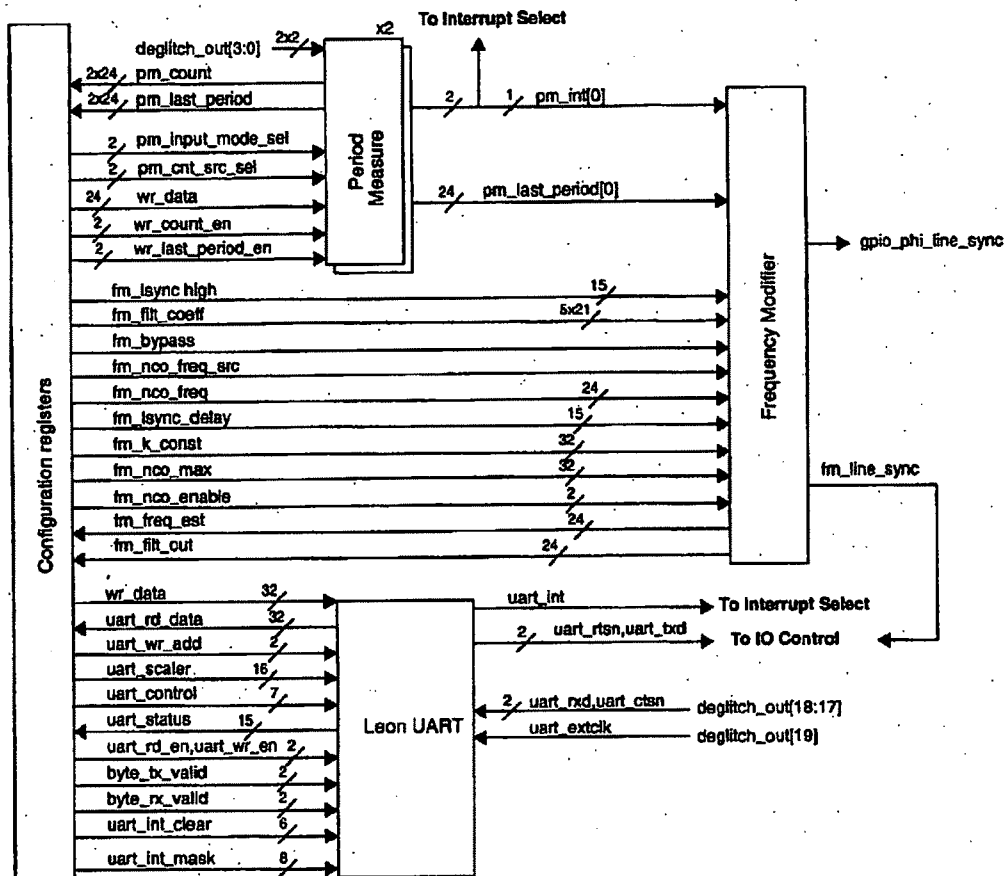


FIG. 50

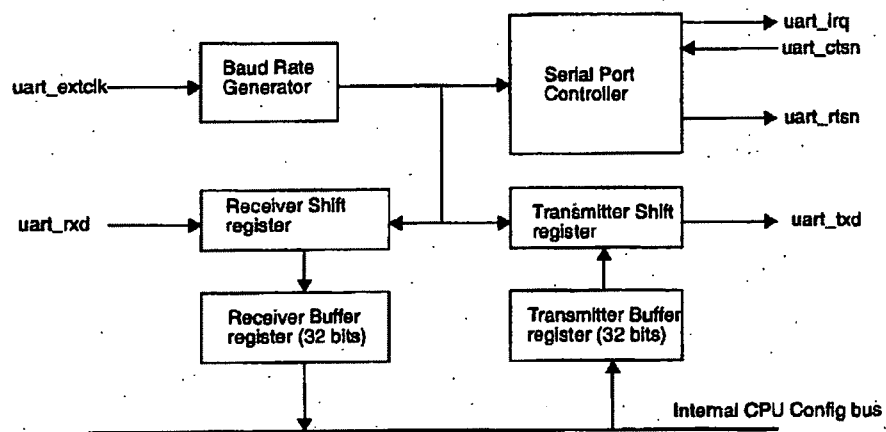


FIG. 51

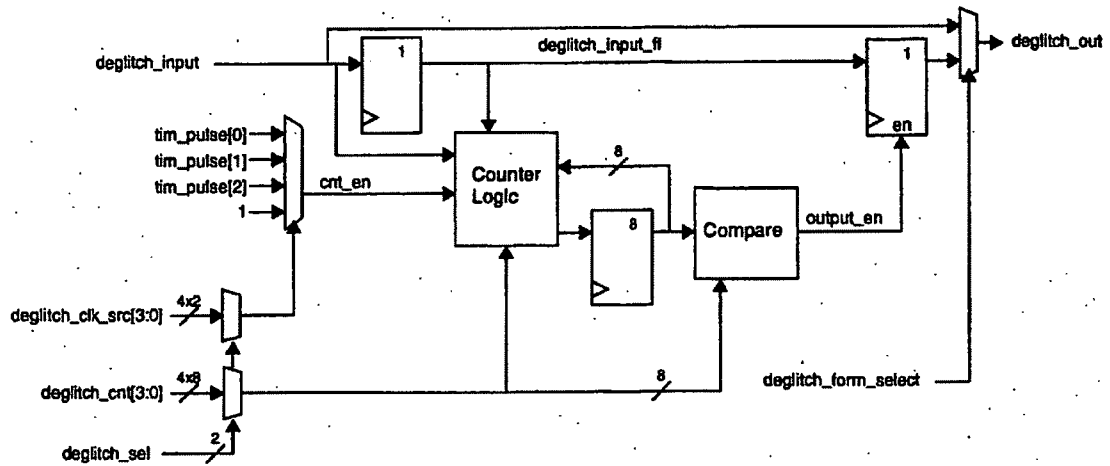


FIG. 52

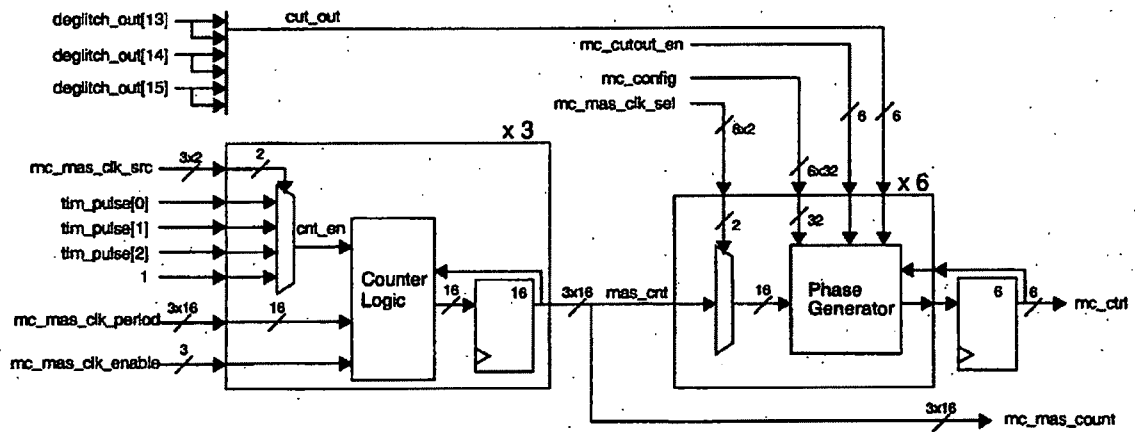


FIG. 53

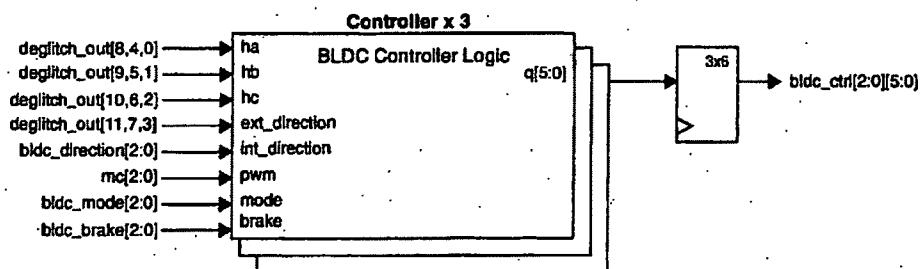


FIG. 54

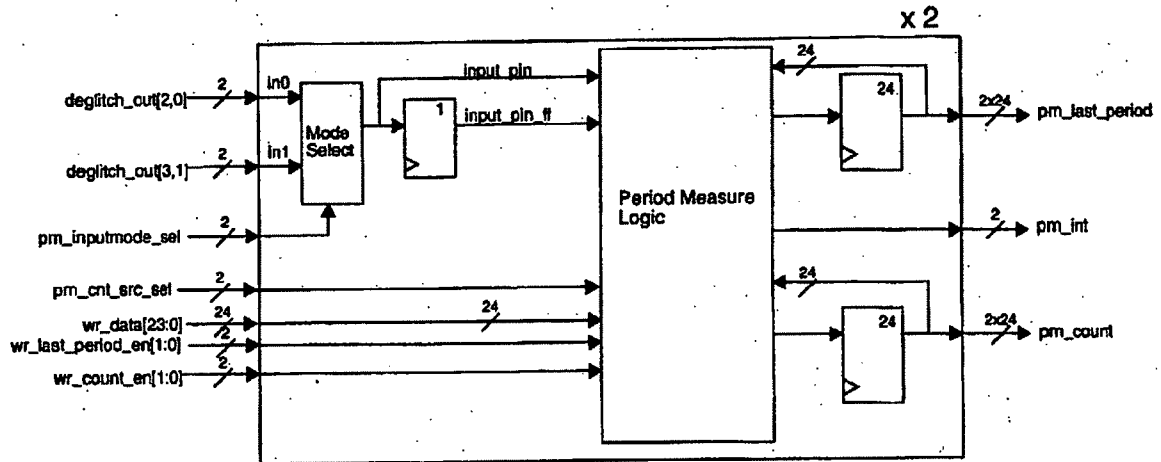


FIG. 55

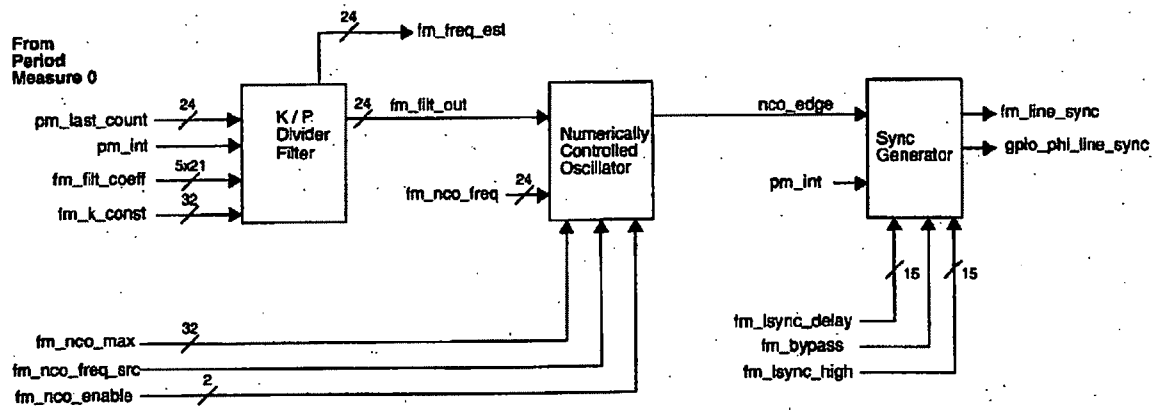


FIG. 56

Value	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Period Count																																
K division Constant																																
Frequency Estimate																																
Coefficient Constant																																
Filter internal states																																
Filter Output Frequency																																

Sign Bit

Fixed Point

FIG. 57

35/223

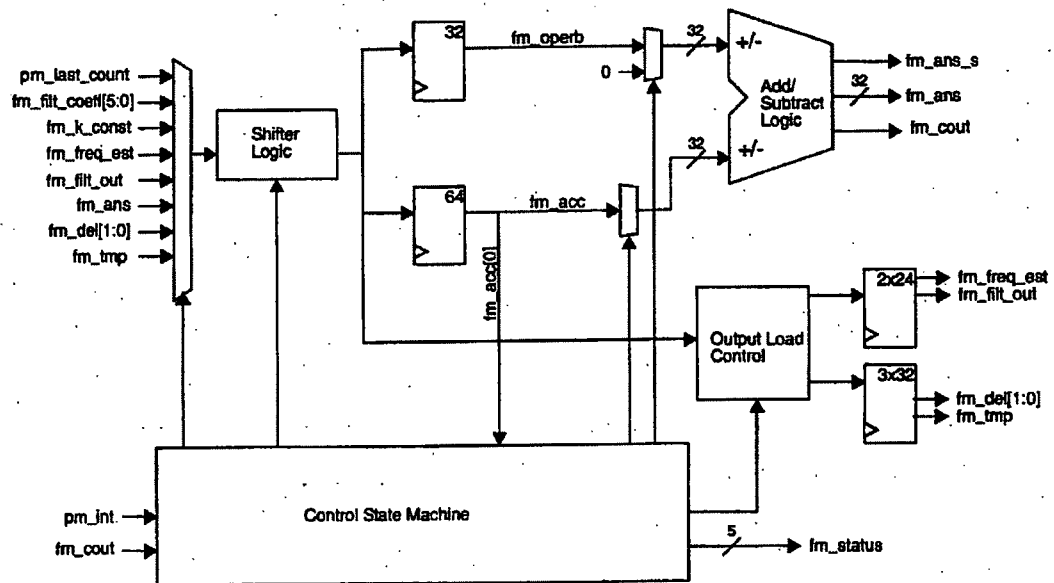


FIG. 58

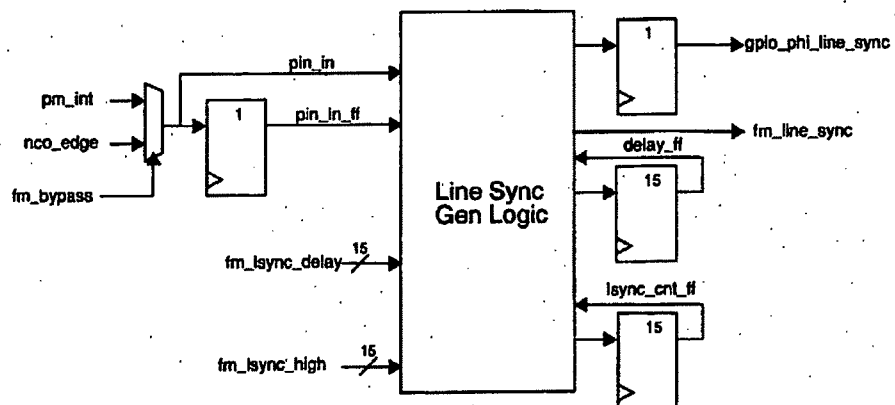


FIG. 59

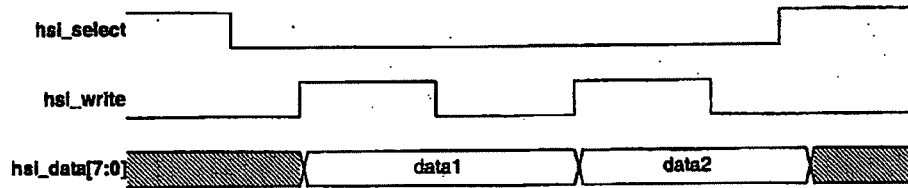


FIG. 60

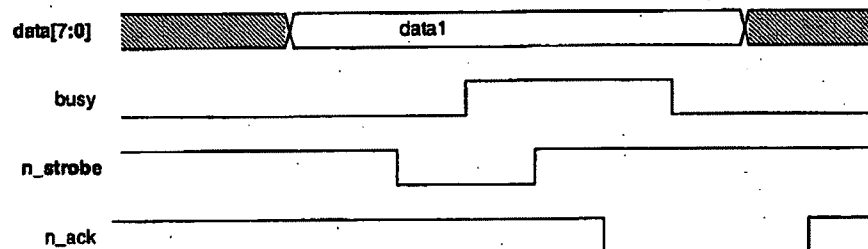


FIG. 61

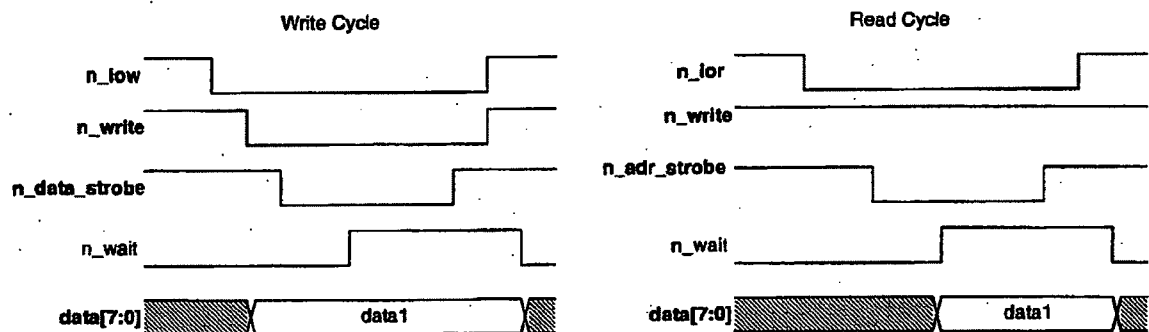


FIG. 62

37/223

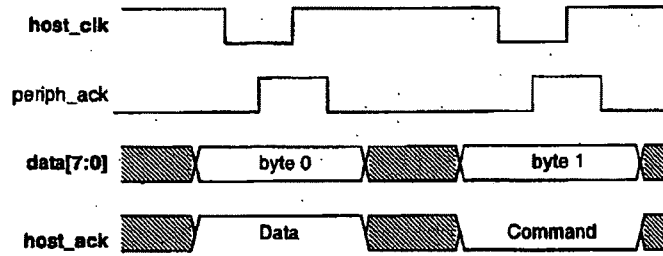


FIG. 63

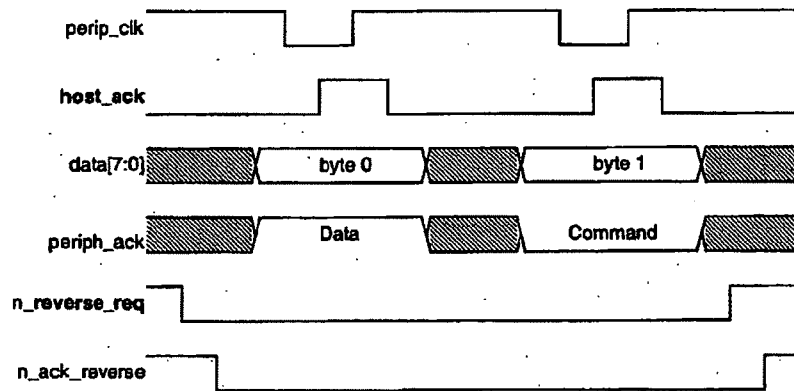


FIG. 64

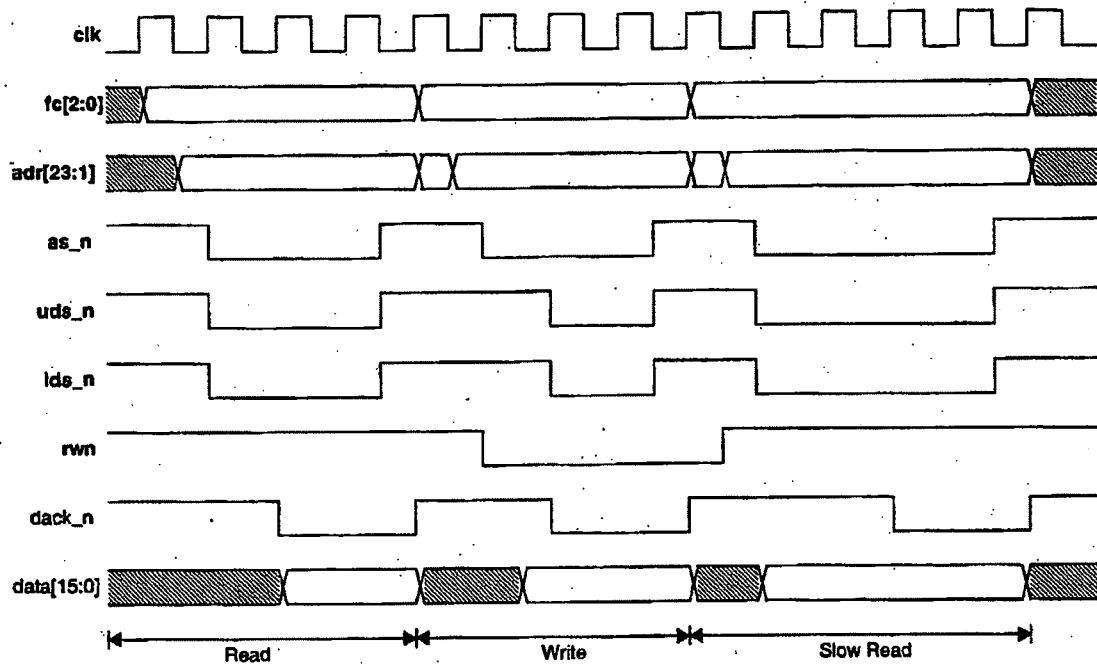


FIG. 65

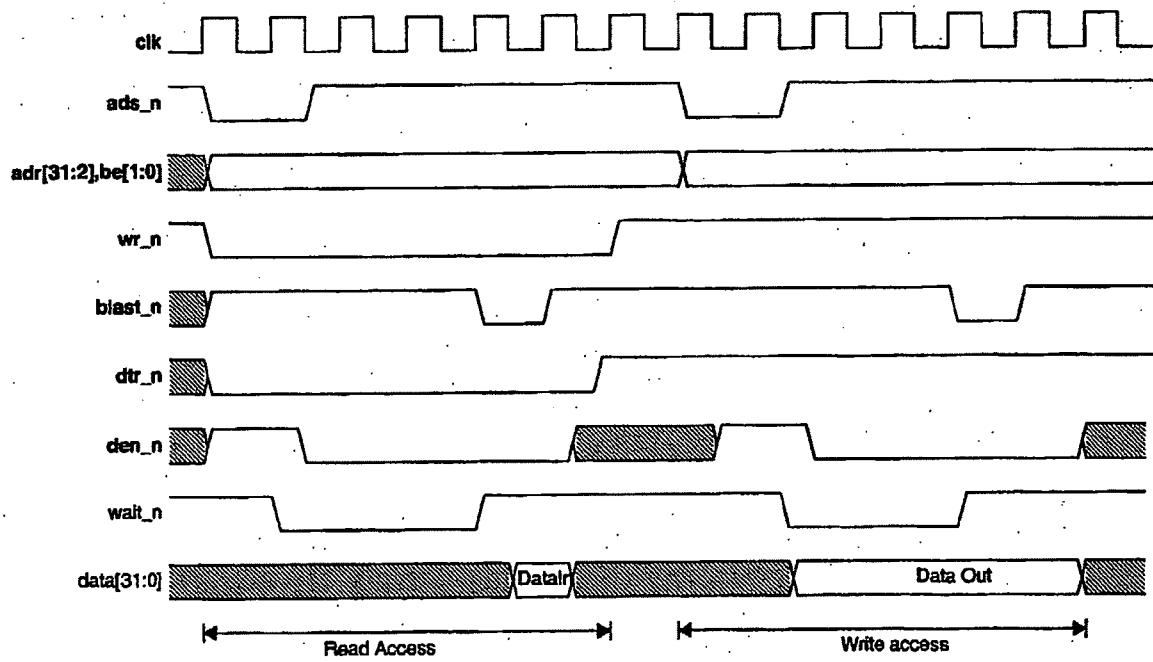


FIG. 66

39/223

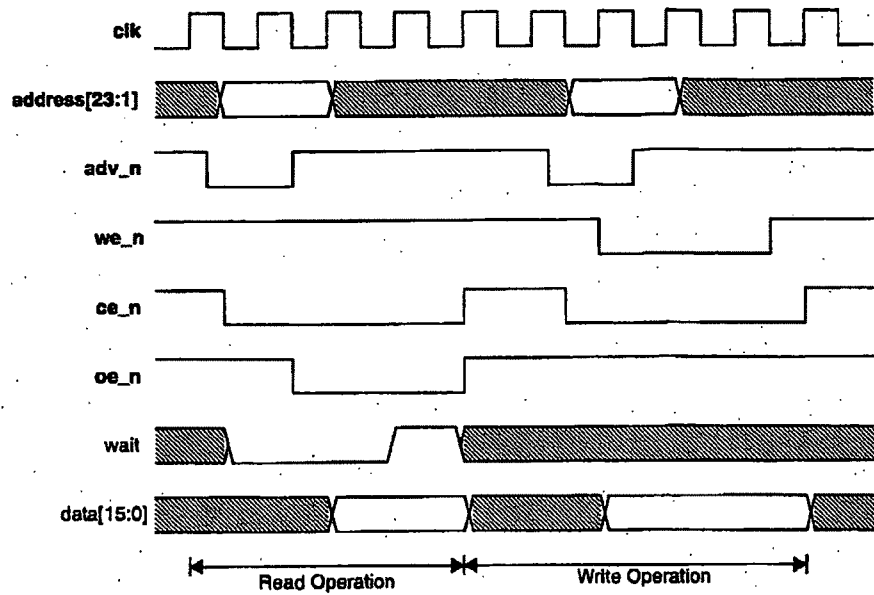


FIG. 67

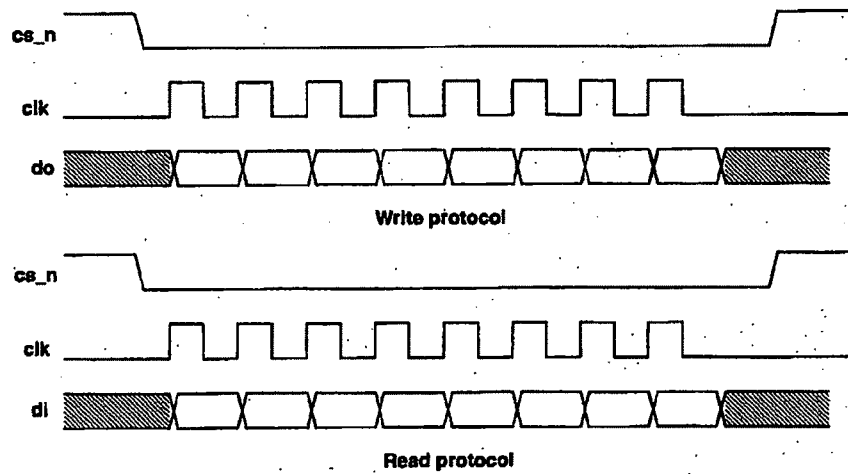


FIG. 68

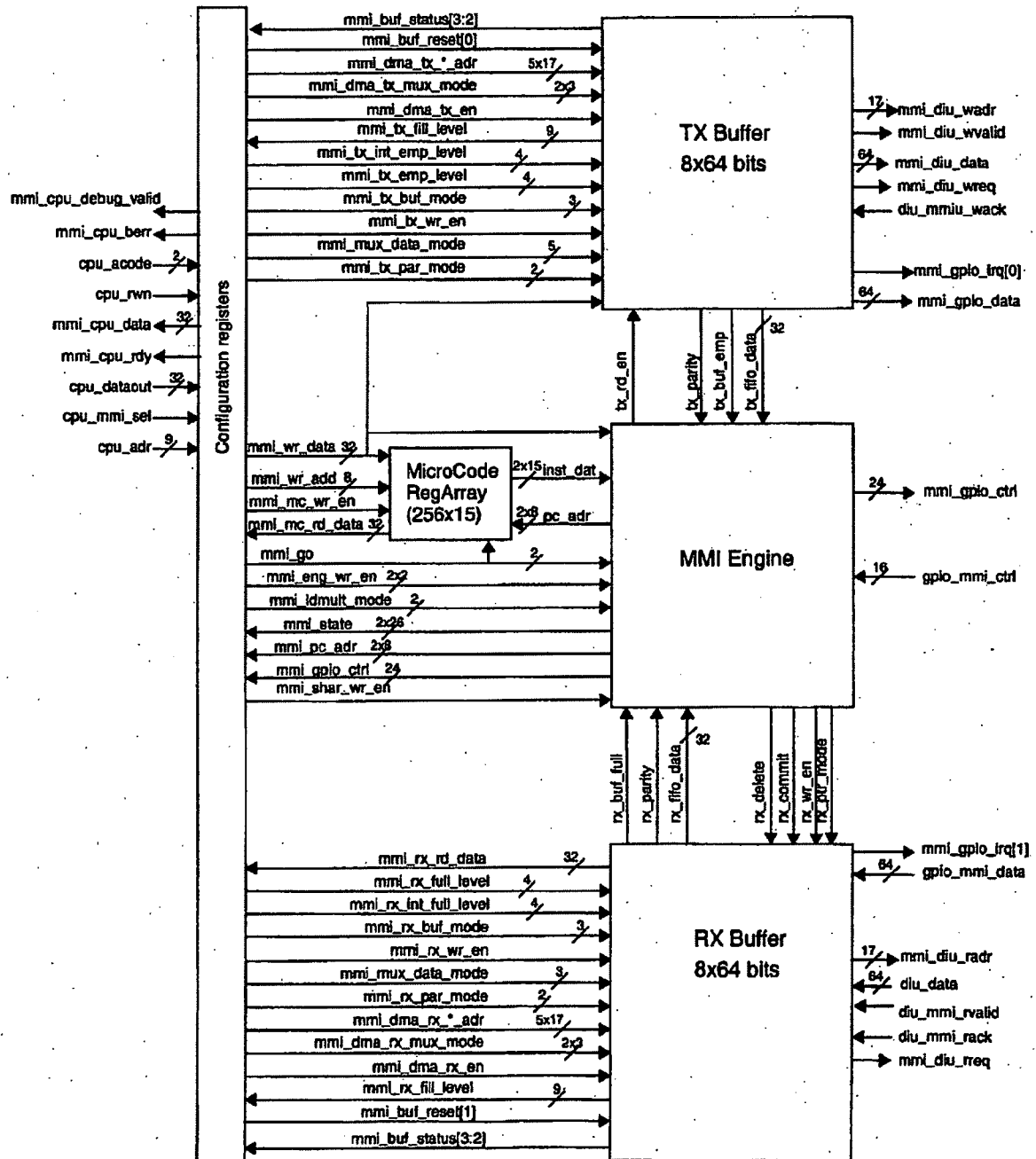


FIG. 69

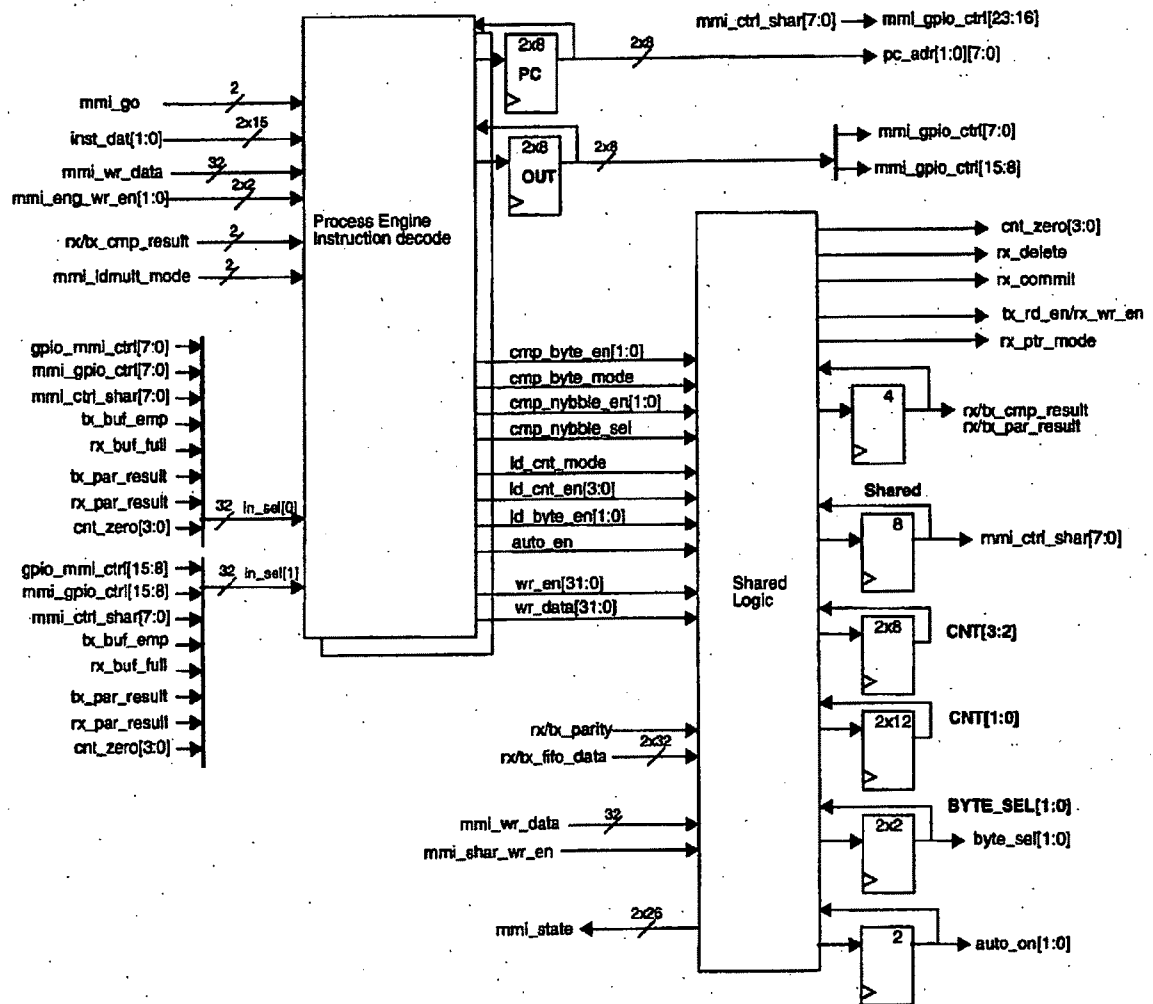


FIG. 70

42/223

Inst	Values
BC	1
ACNT	01
LDMULT	001
CMPNYBBLE	00011
CMYBYTE	00010
LDCNT	00001
BCCMP1	000001
LDBIT	000000001
LDCNT_FIFO	0000000001
LDBSEL	000000000001
RX_COMMIT	00000000000001
RX_DELETE	00000000000000

14	12	11	8	7	4	3	0
Instructions							
BC	B	IN_SEL			PC_OFFSET		
ACNT	B	NUM_CYCLES					
LDMULT		MASK			OUT_VALUE		
CMPNYBBLE		B2	B1	MASK		VALUE	
CMPBYTE		B1	ME	MASK/DATA VALUE			
LDCNT		SEL		NUM_COUNT			
BCCMP1			B	PC_OFFSET			
LDBIT				B	OUT_SEL		
LDCNT_FIFO				B	SEL	NYB	
LDBSEL						B	SEL
RX_COMMIT							
RX_DELETE							

FIG. 71

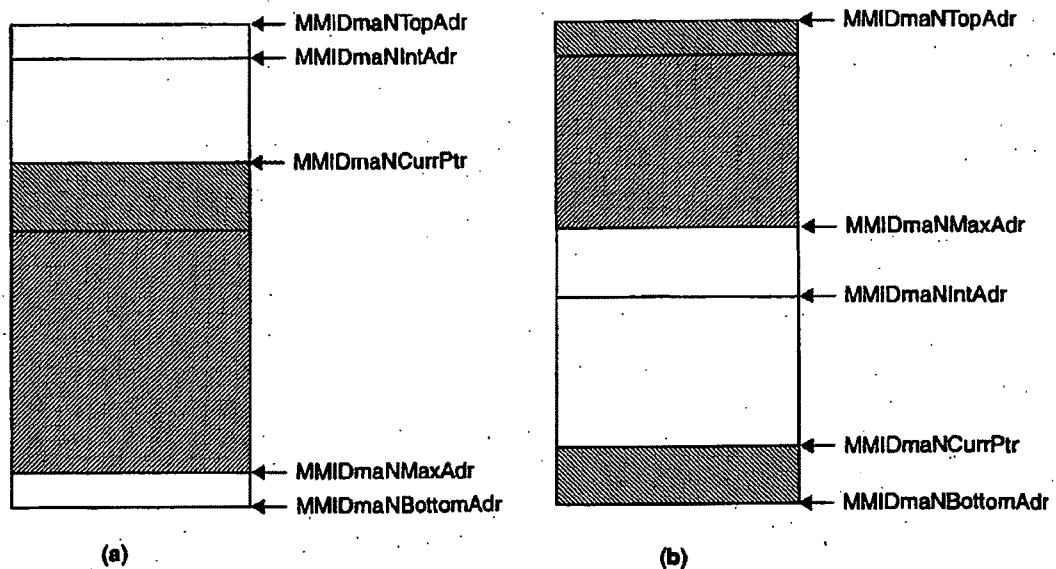


FIG. 72

43/223

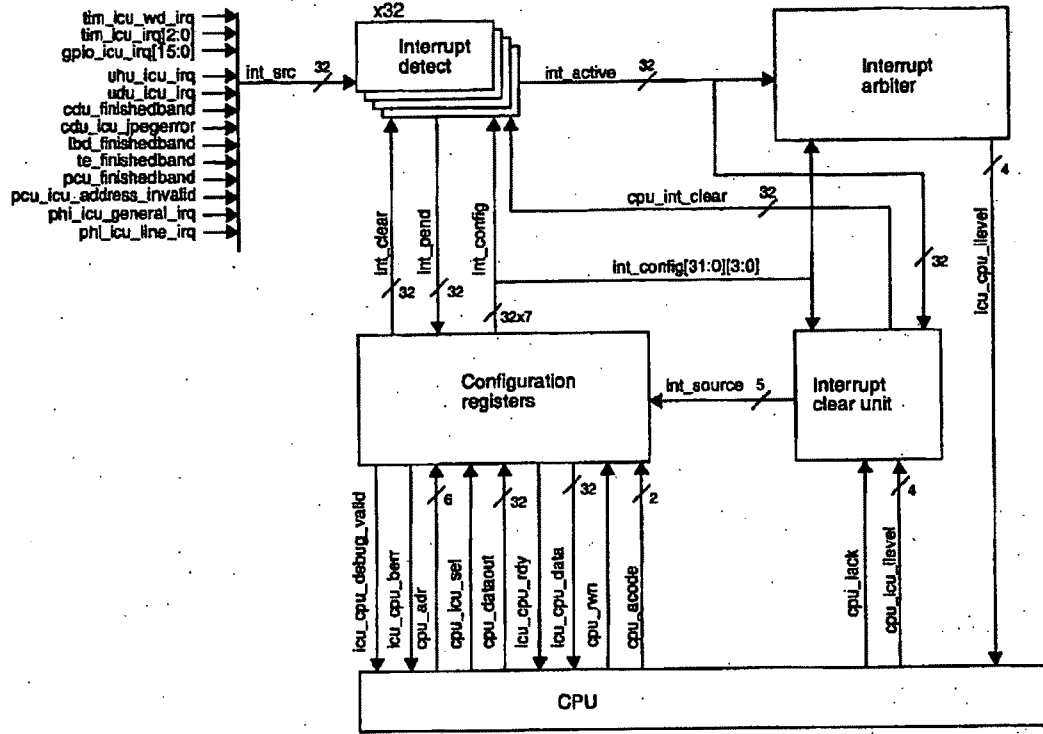
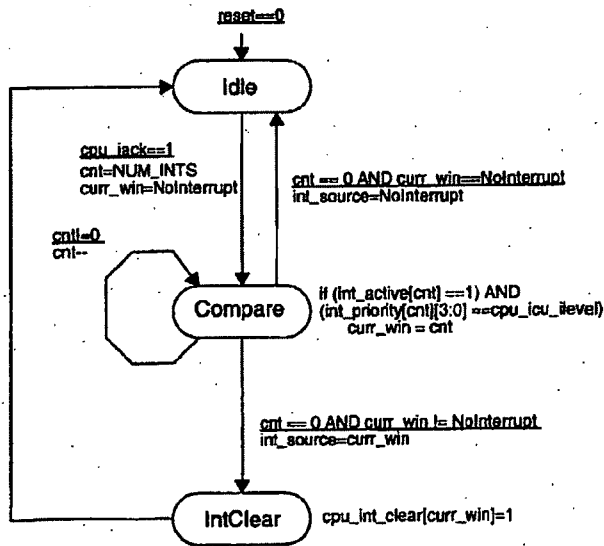


FIG. 73



Machine remains in same state by default
All outputs are zero unless otherwise stated

State Description:

Idle: Normal Idle state
Compare: Compare interrupt level. Determines the interrupt source
IntClear: Interrupt clear, clear the pending bit for the current interrupt vector

FIG. 74

44/223

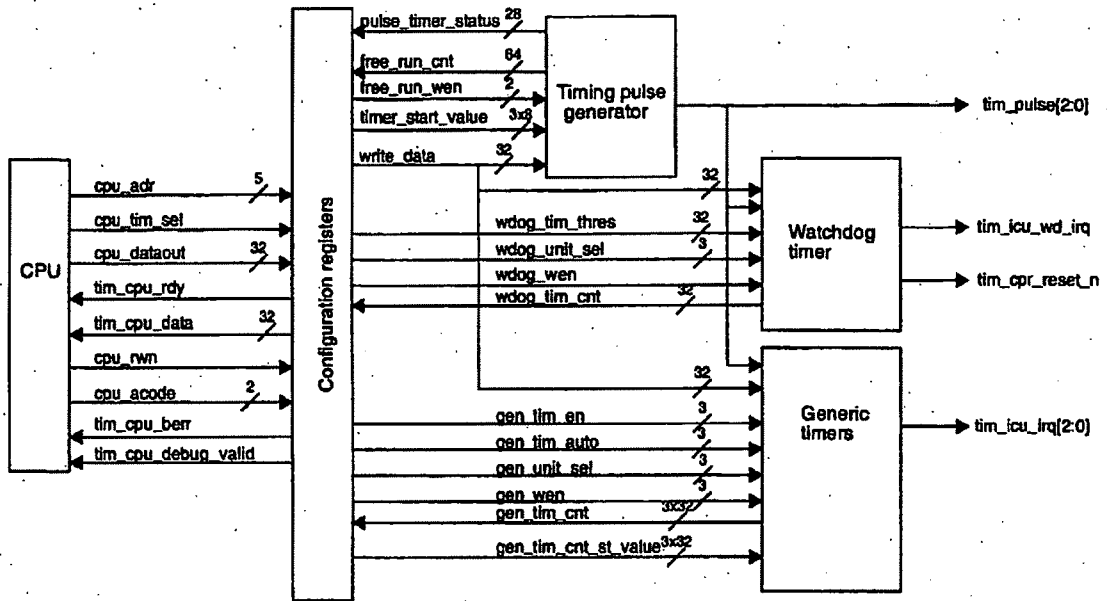


FIG. 75

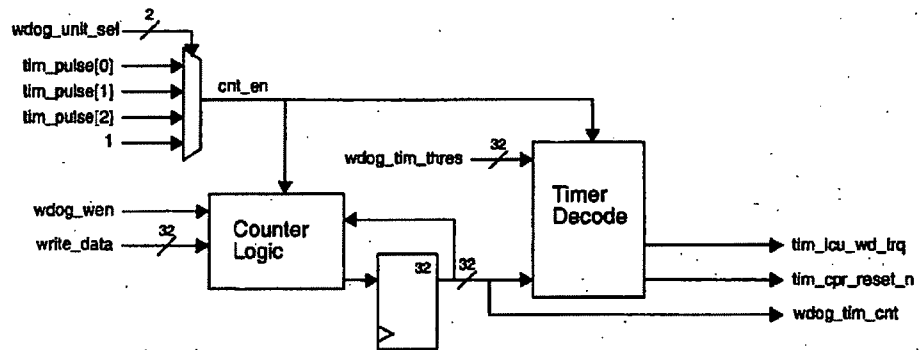


FIG. 76

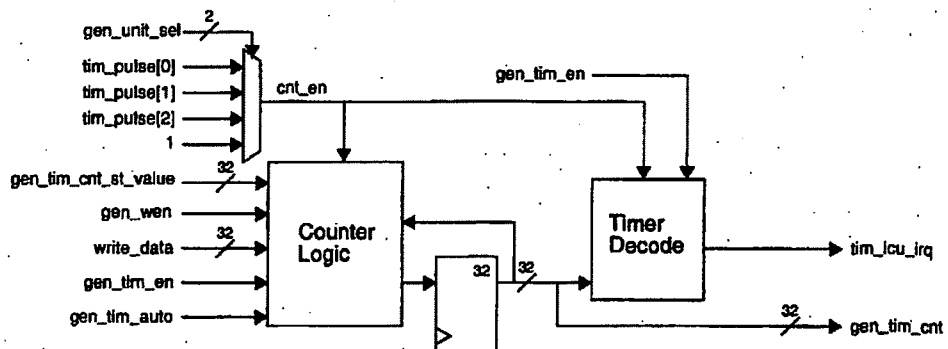


FIG. 77

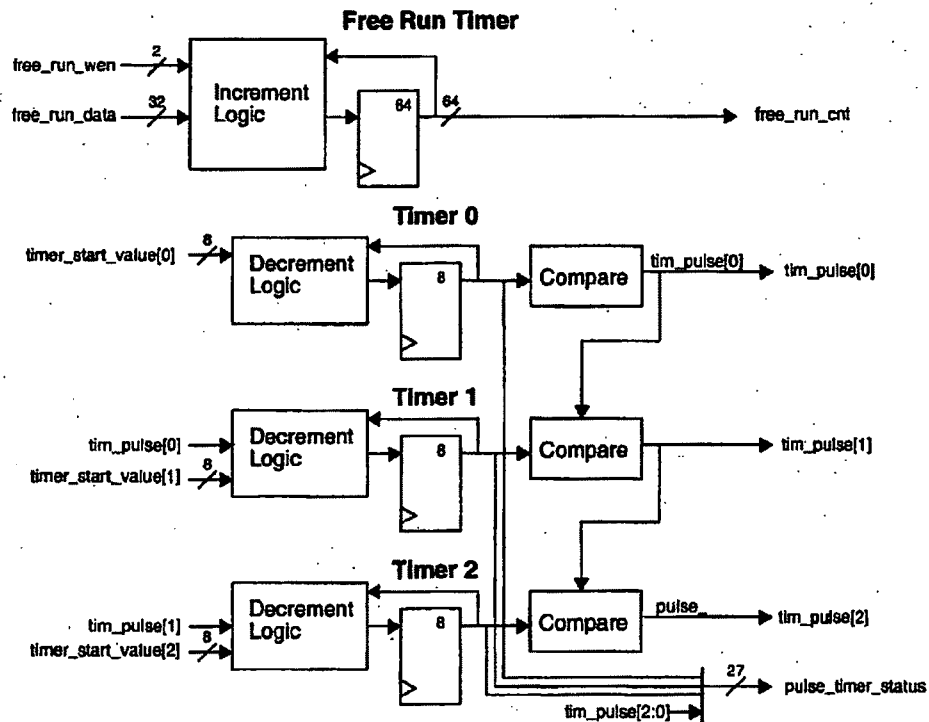


FIG. 78

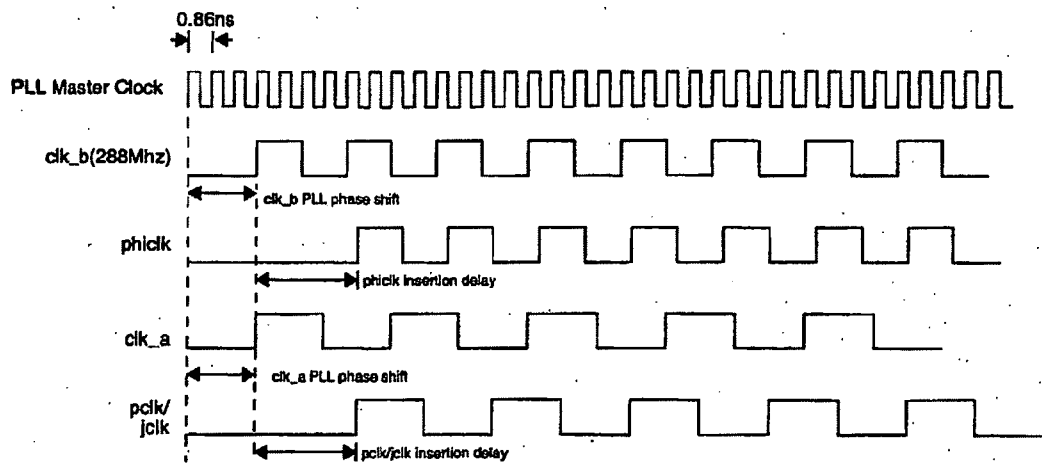


FIG. 79

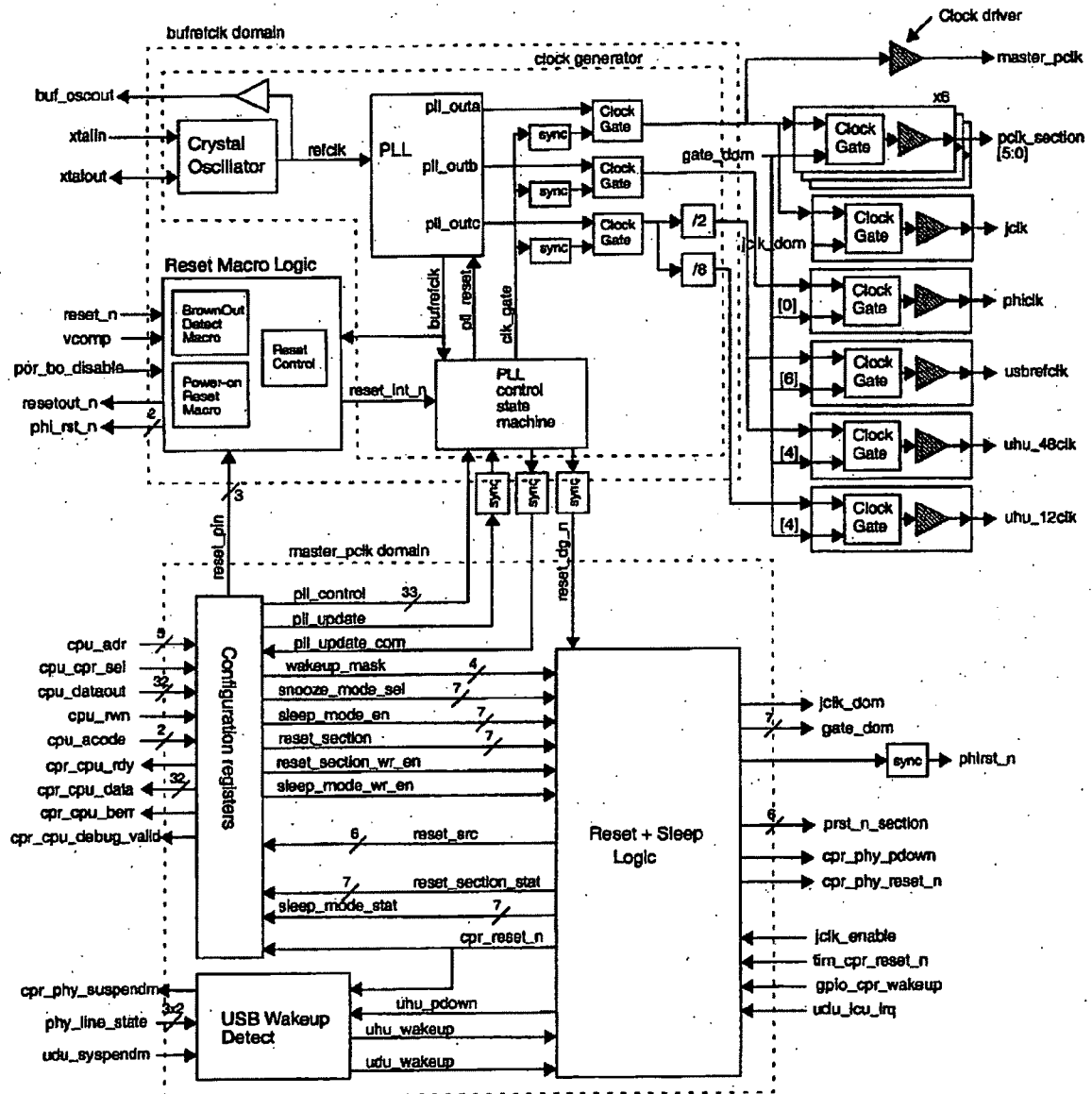
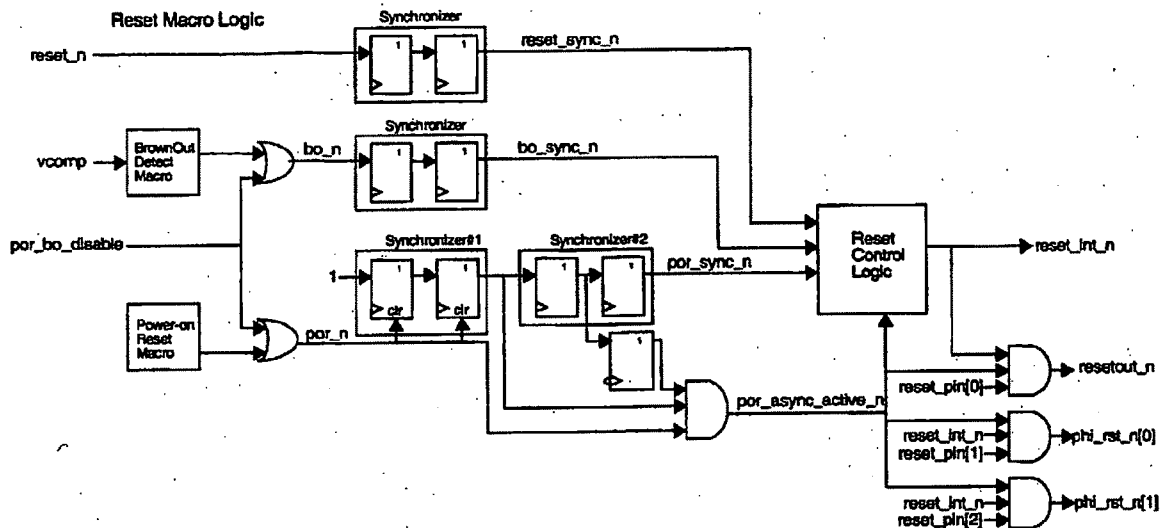


FIG. 80

47/223



Note: All logic clocked on bufrefclk unless otherwise indicated

FIG. 81

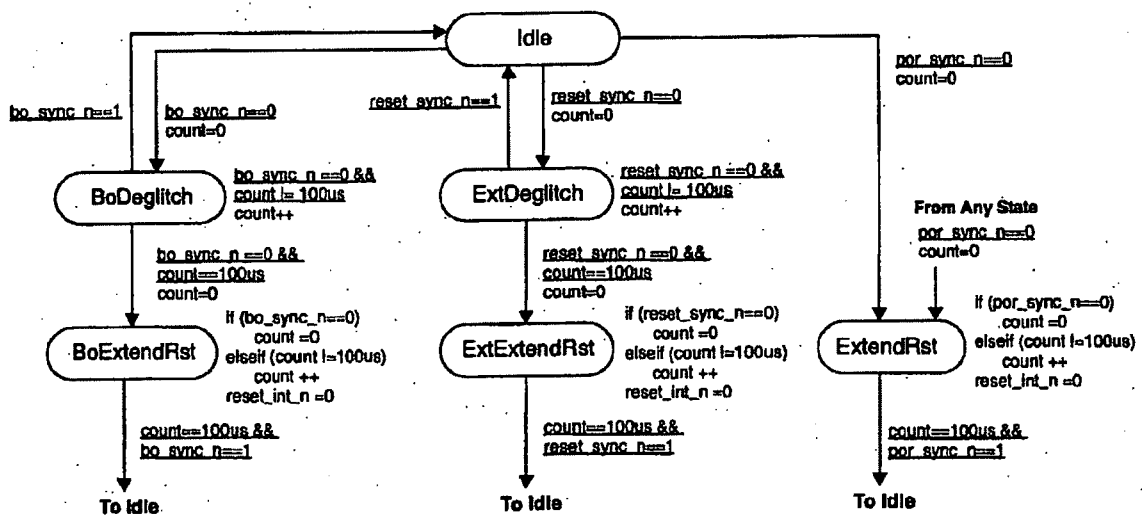
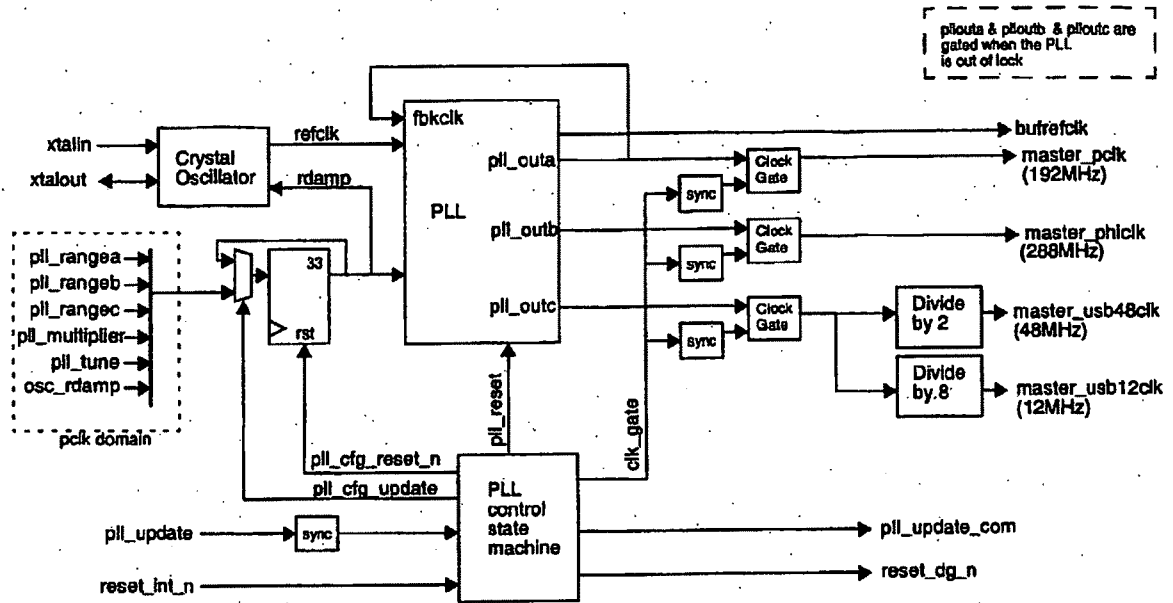


FIG. 82



Note: All logic clocked on bufrefclk unless otherwise indicated

FIG. 83

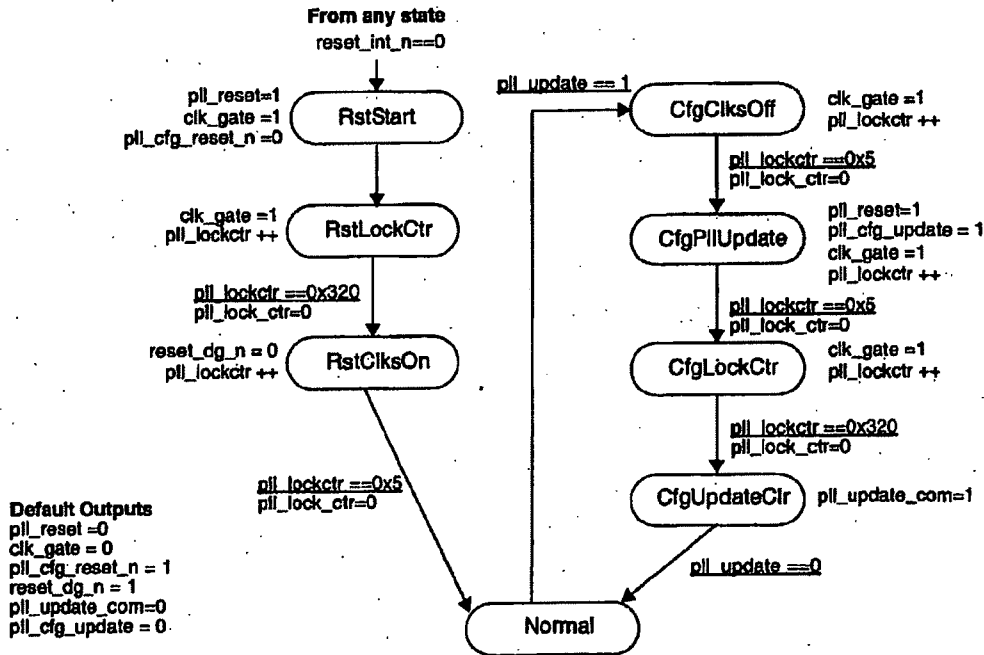


FIG. 84

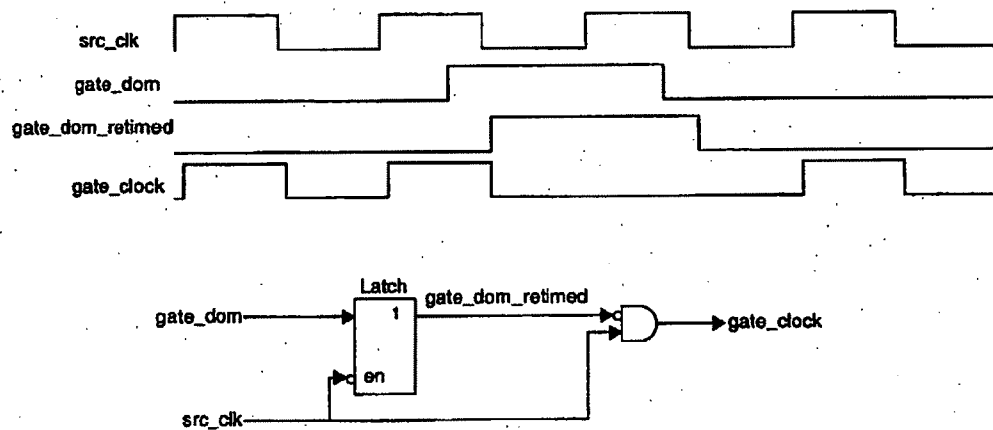


FIG. 85

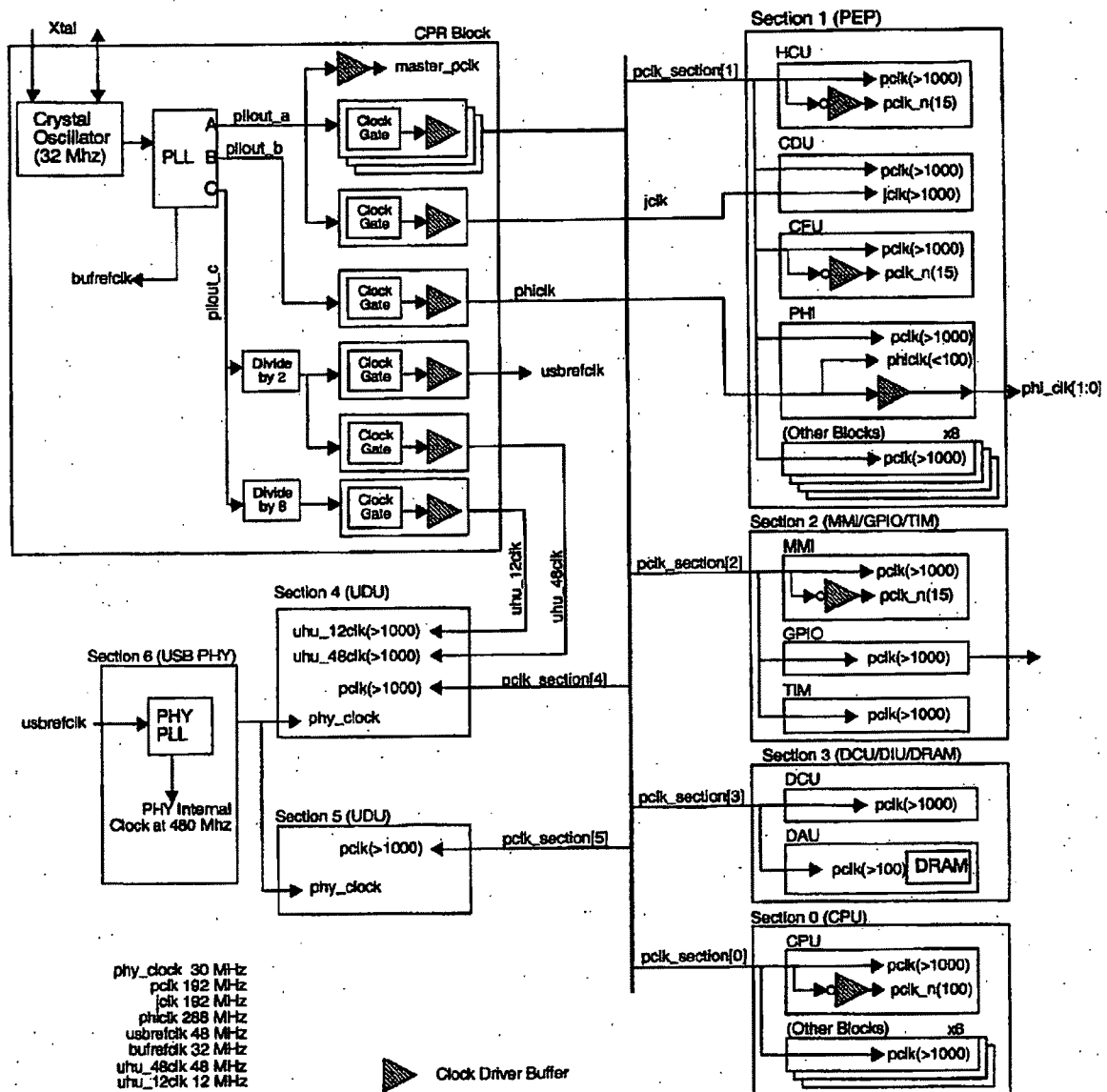


FIG. 86

51/223

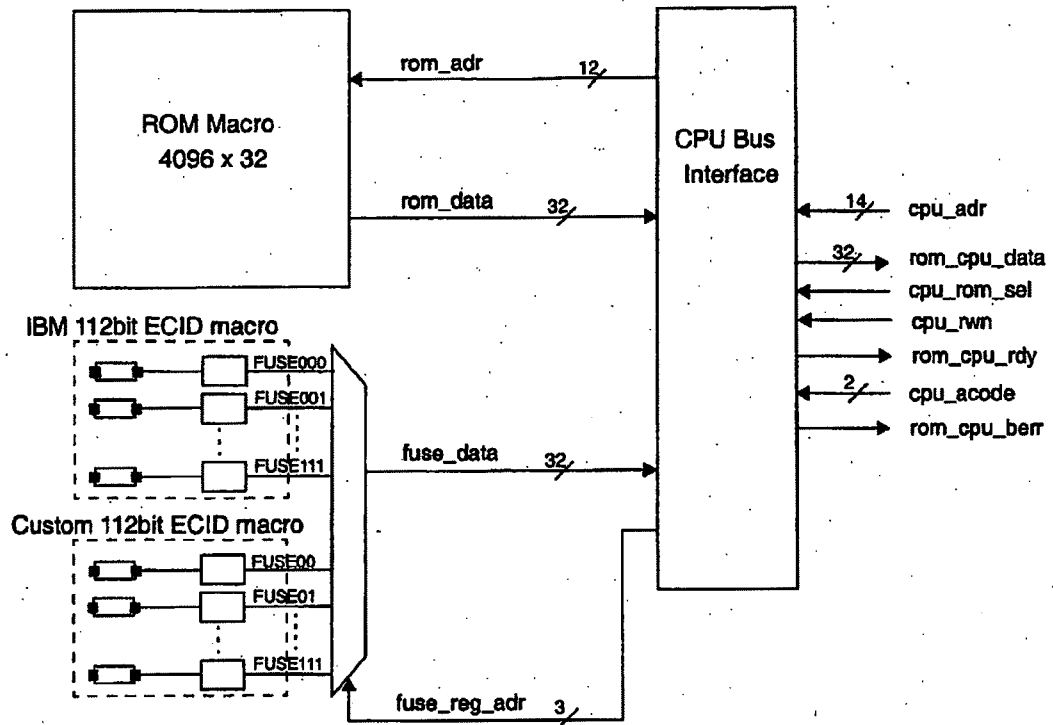


FIG. 87

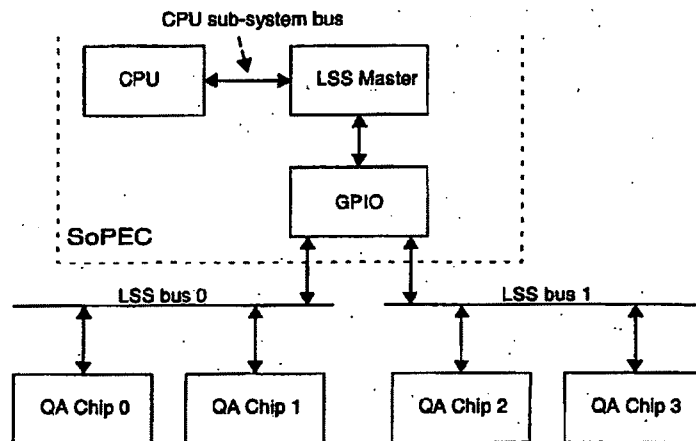


FIG. 88

52/223

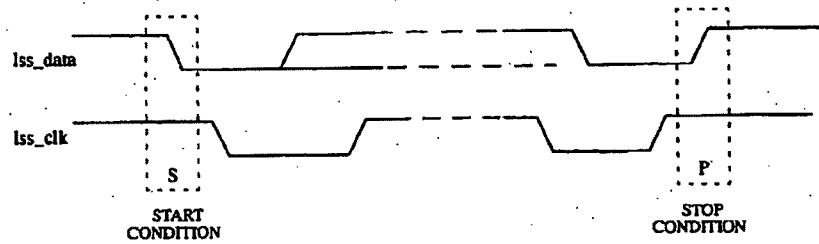


FIG. 89

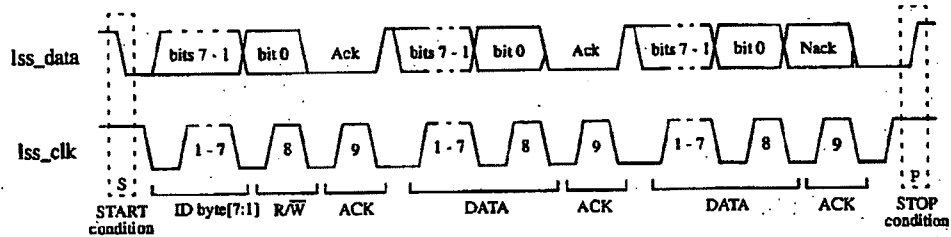
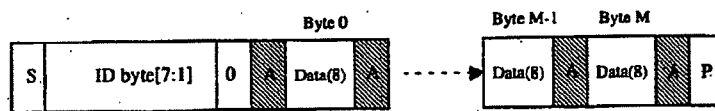
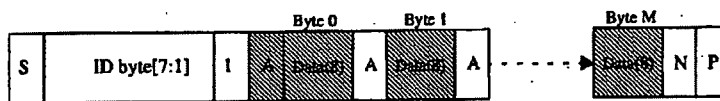


FIG. 90



S = Start condition
A = Ack
N = Nack
P = Stop condition
Shaded bits driven by slave

FIG. 91



S = Start condition
A = Ack
N = Nack
P = Stop condition
Shaded bits driven by slave

FIG. 92

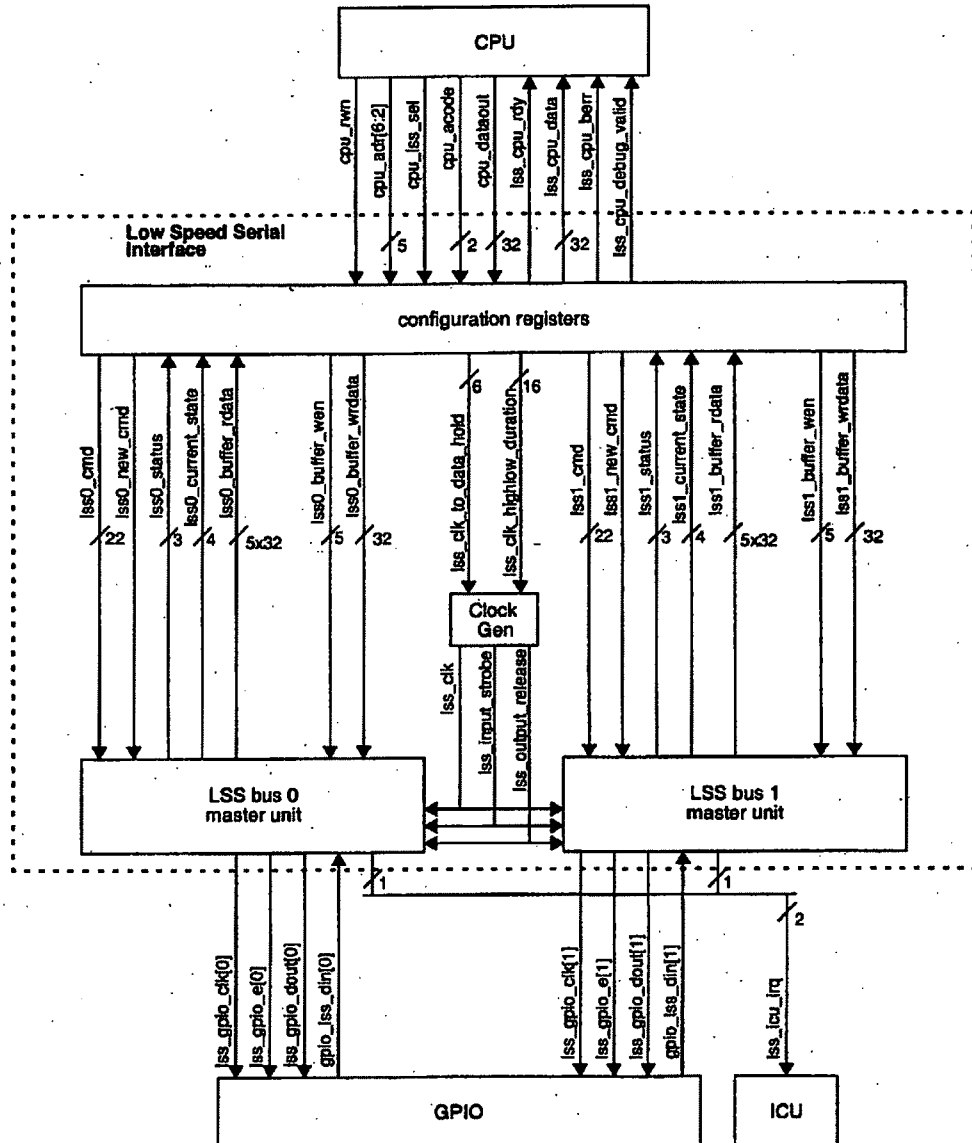


FIG. 93

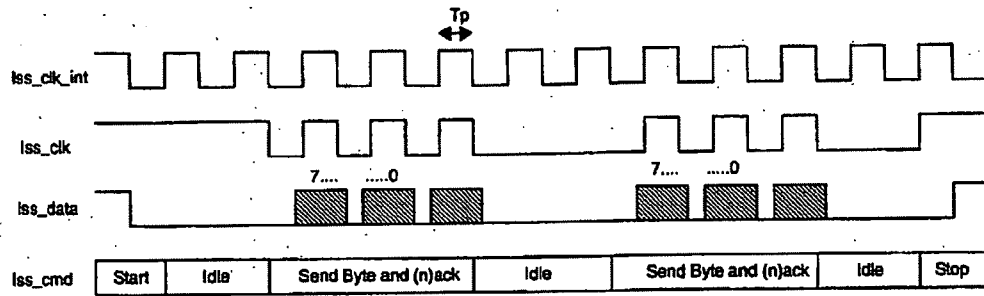


FIG. 94

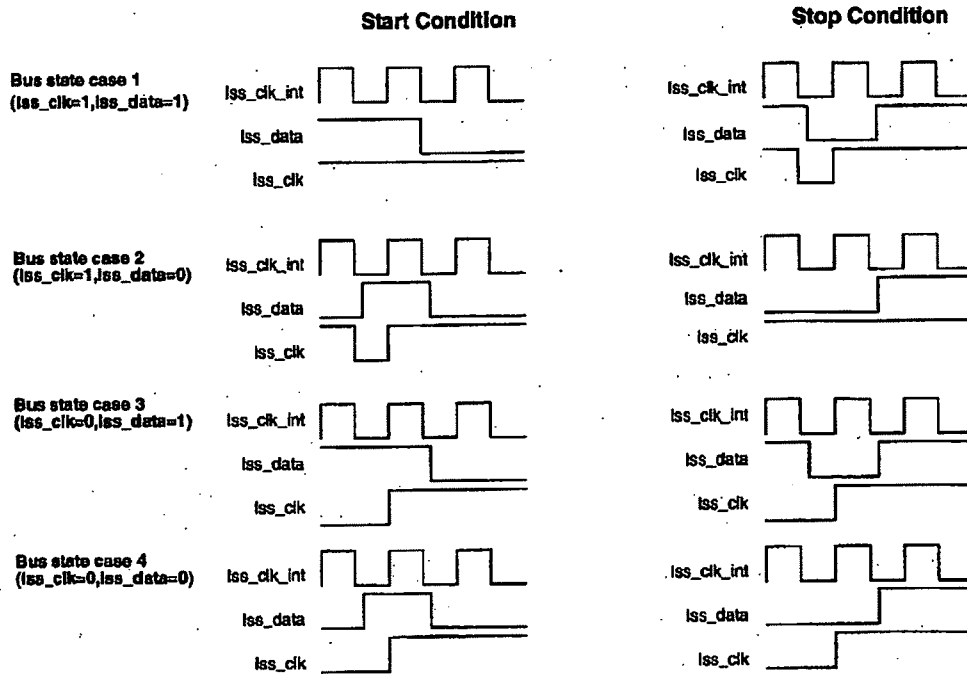


FIG. 95

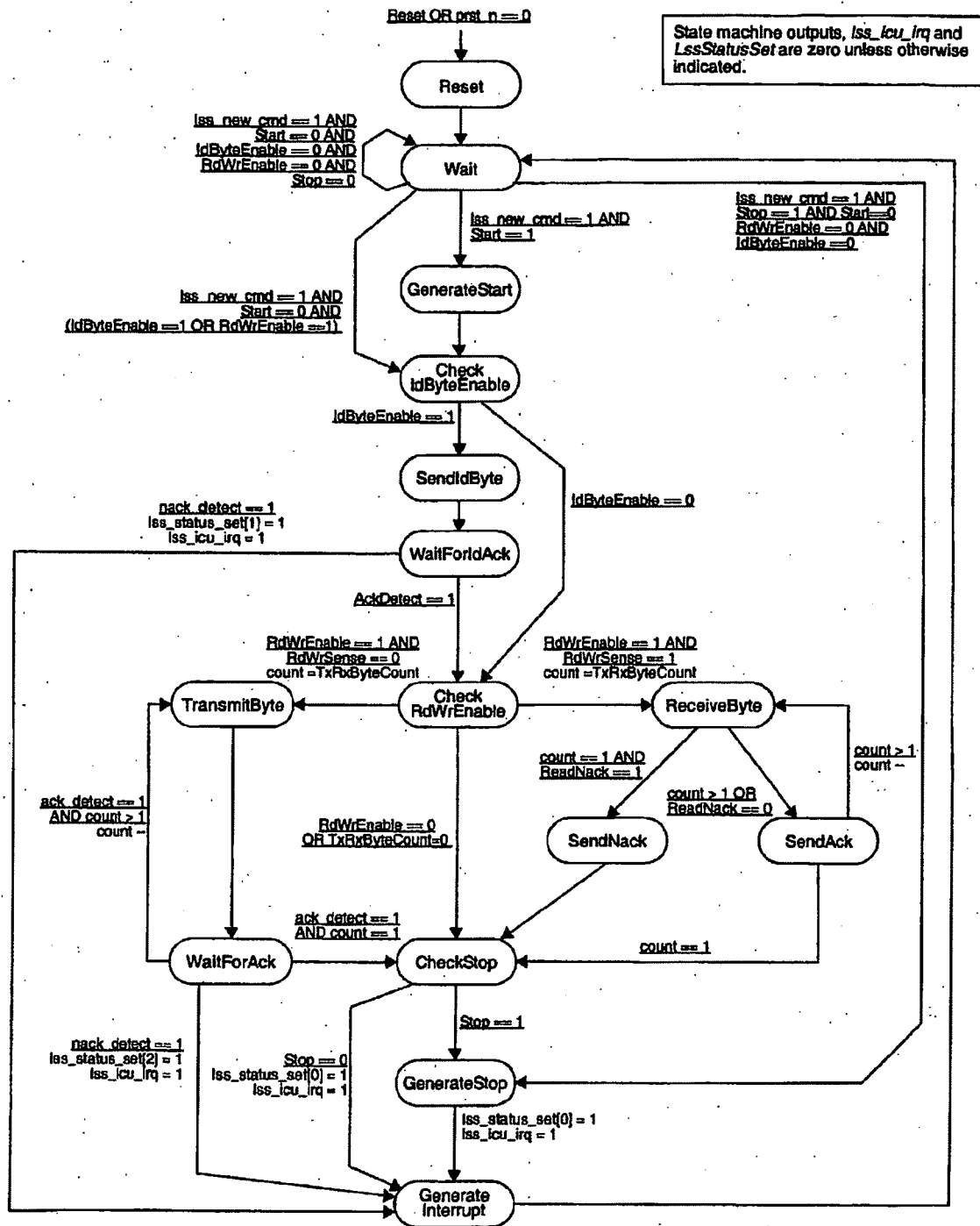


FIG. 96

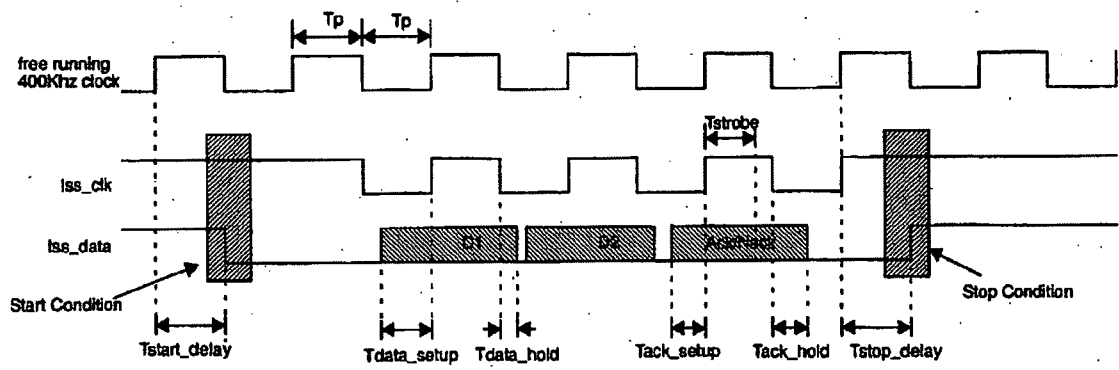


FIG. 97

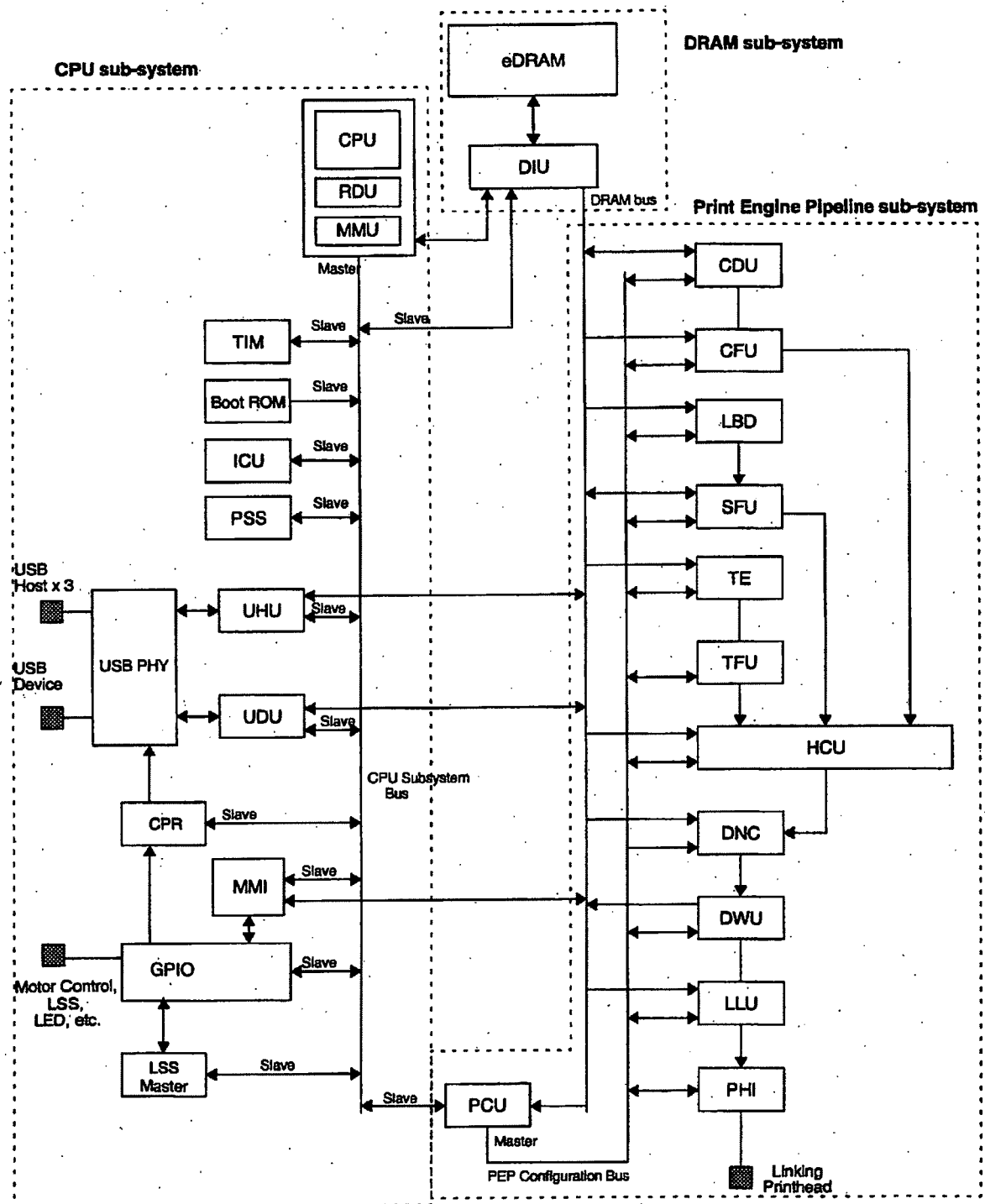


FIG. 98

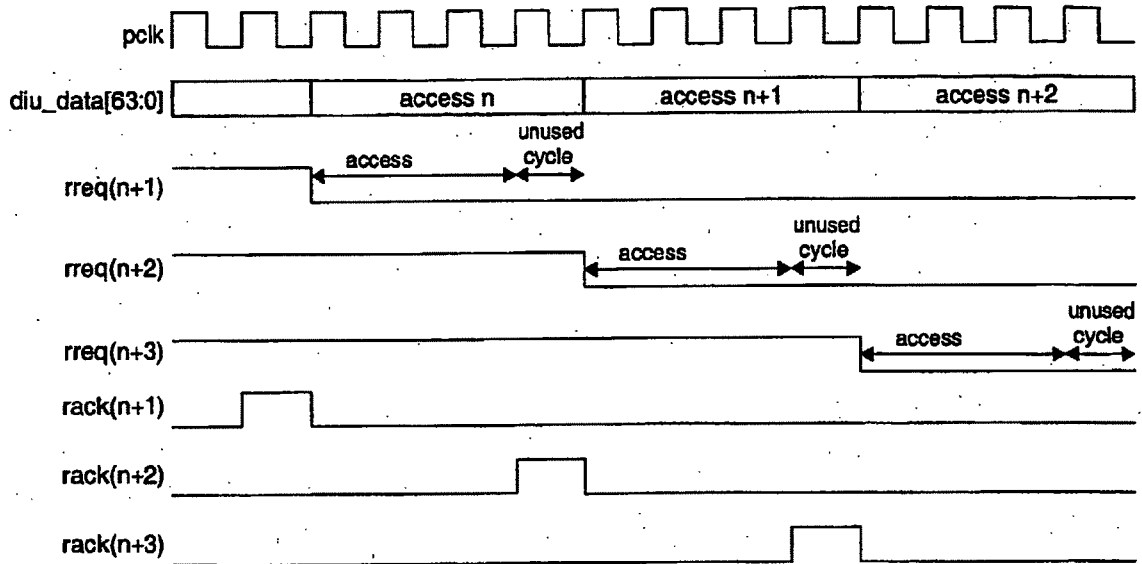


FIG. 99

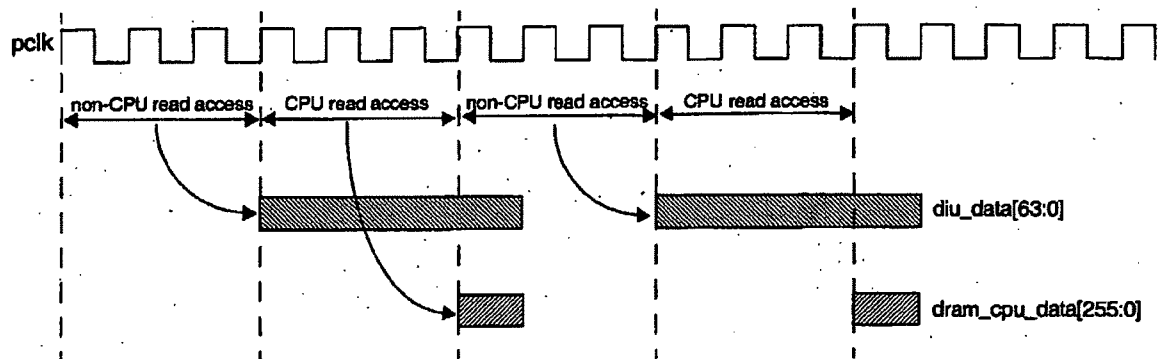


FIG. 100

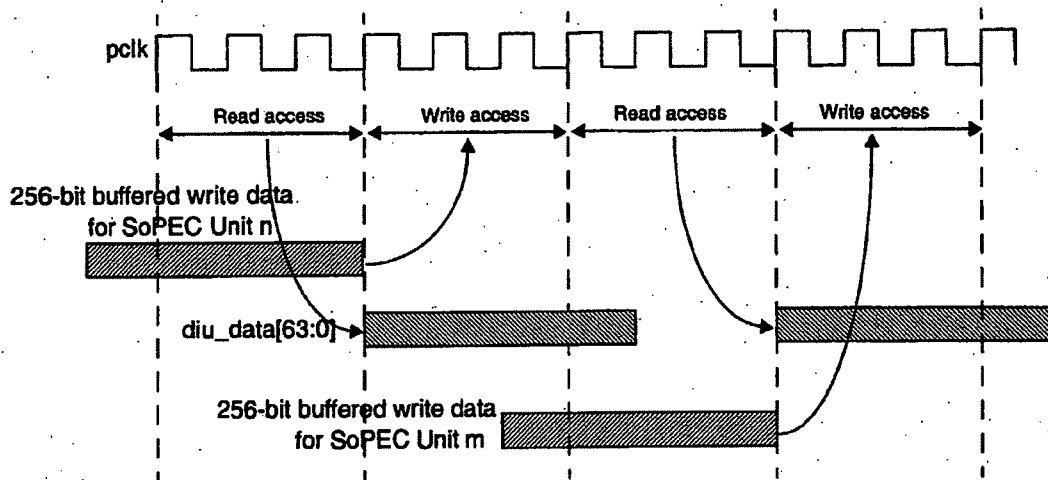


FIG. 101

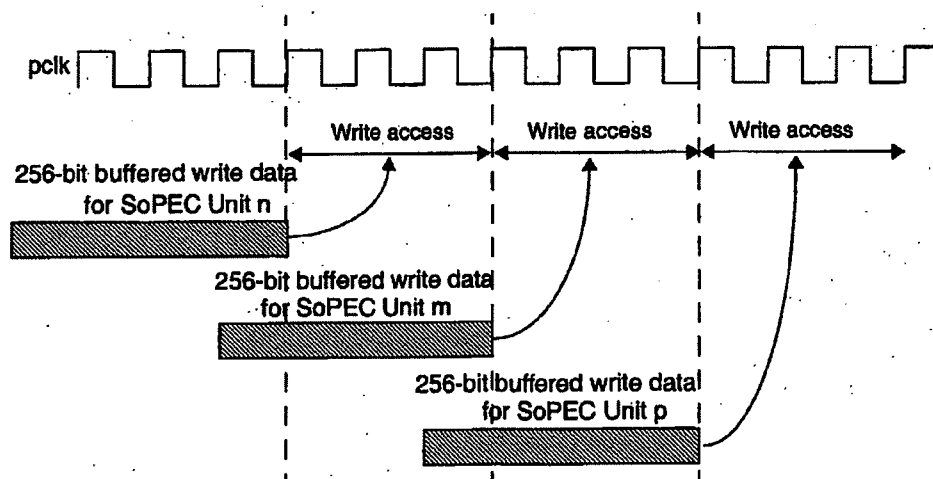


FIG. 102

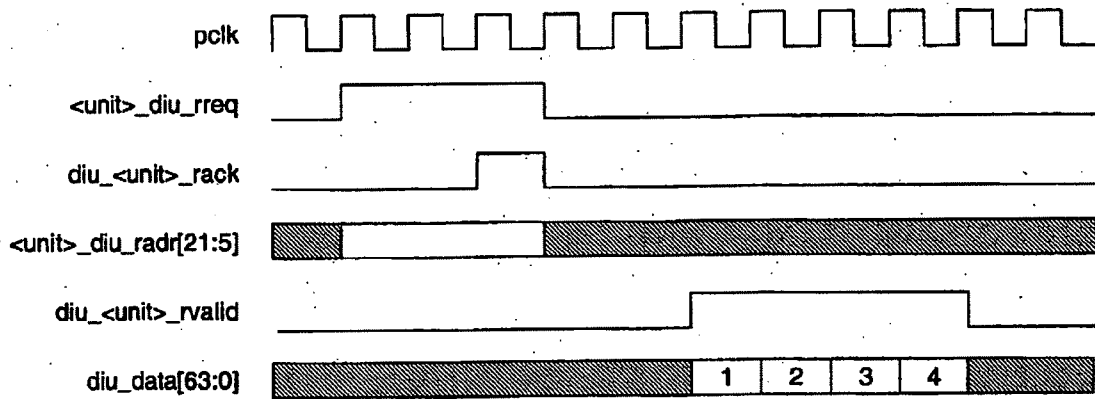


FIG. 103

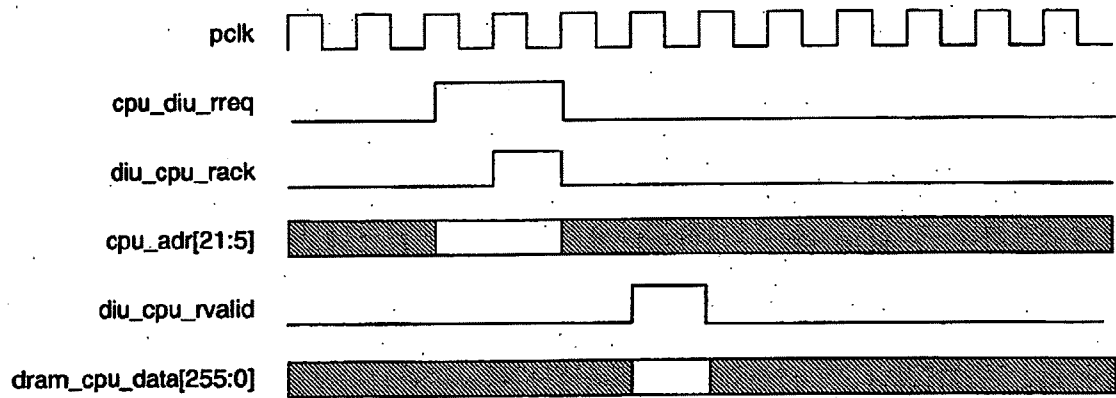


FIG. 104

61/223

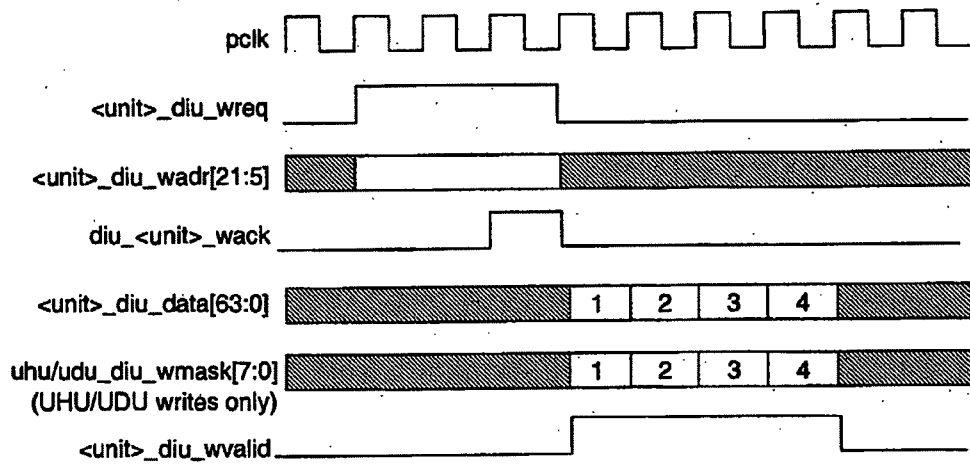


FIG. 105

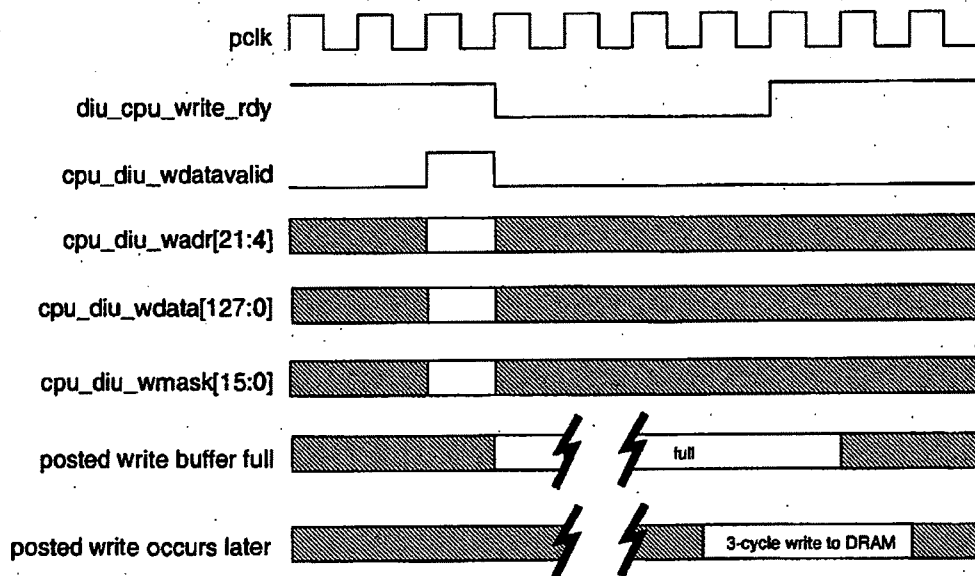


FIG. 106

62/223

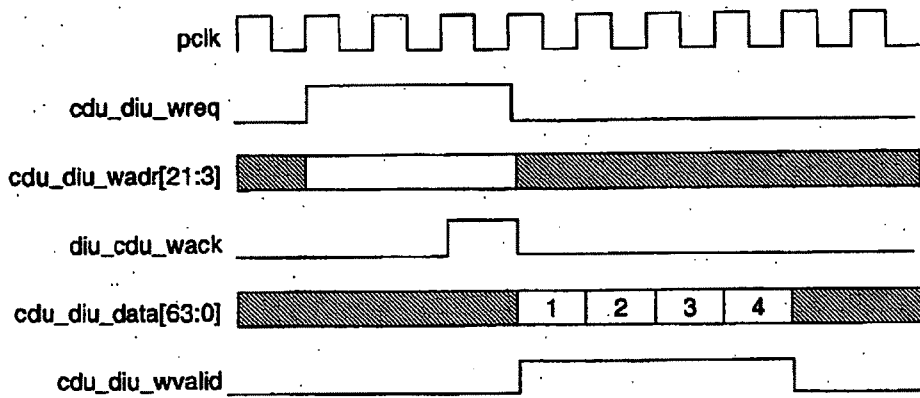


FIG. 107

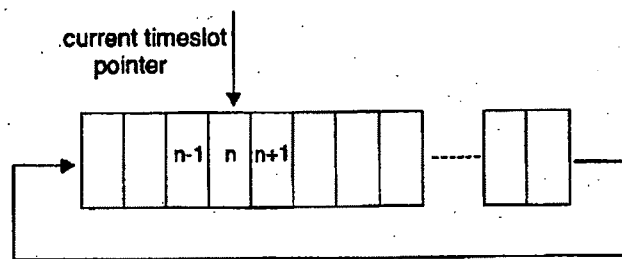


FIG. 108

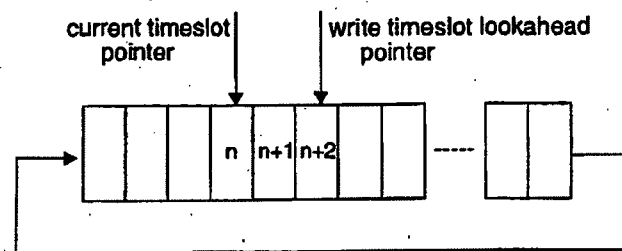


FIG. 109

63/223

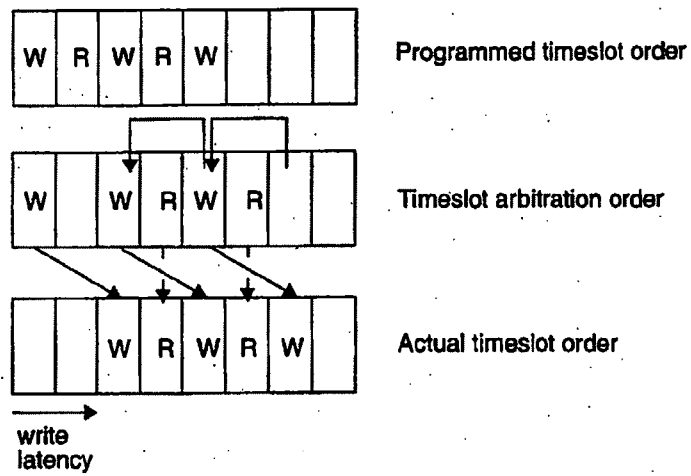


FIG. 110

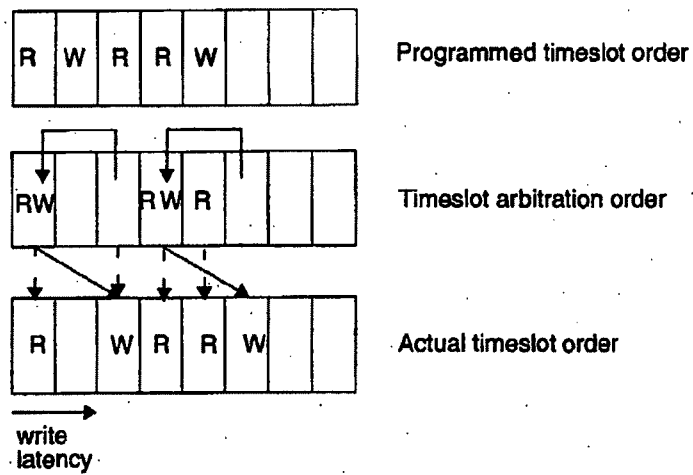


FIG. 111

64/223

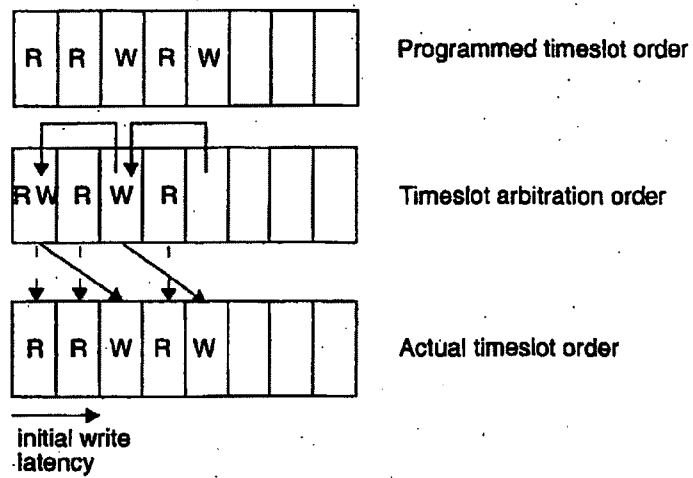


FIG. 112

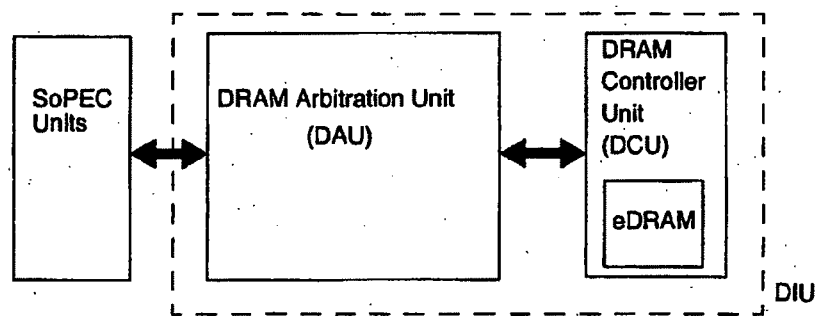


FIG. 113

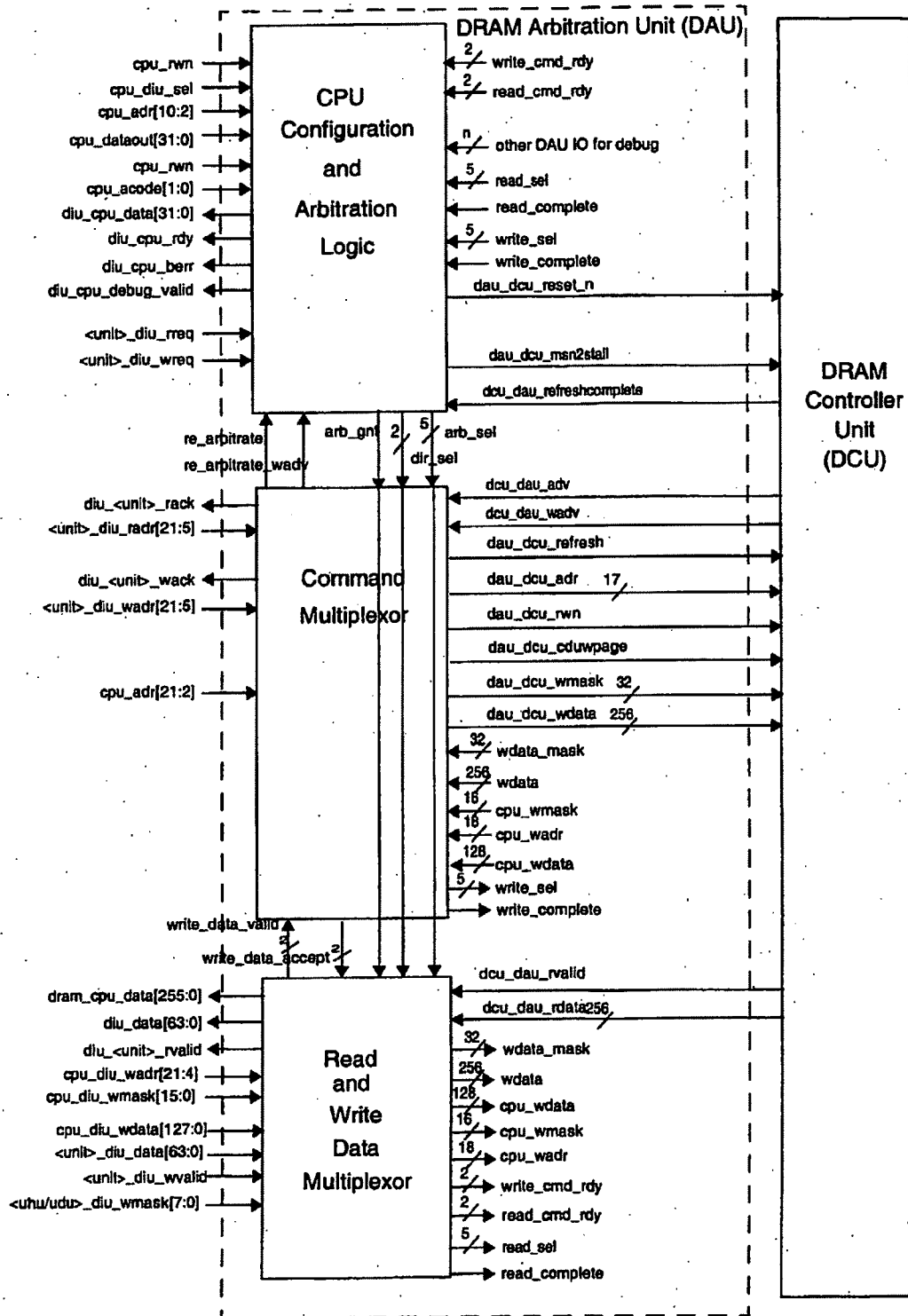


FIG. 114

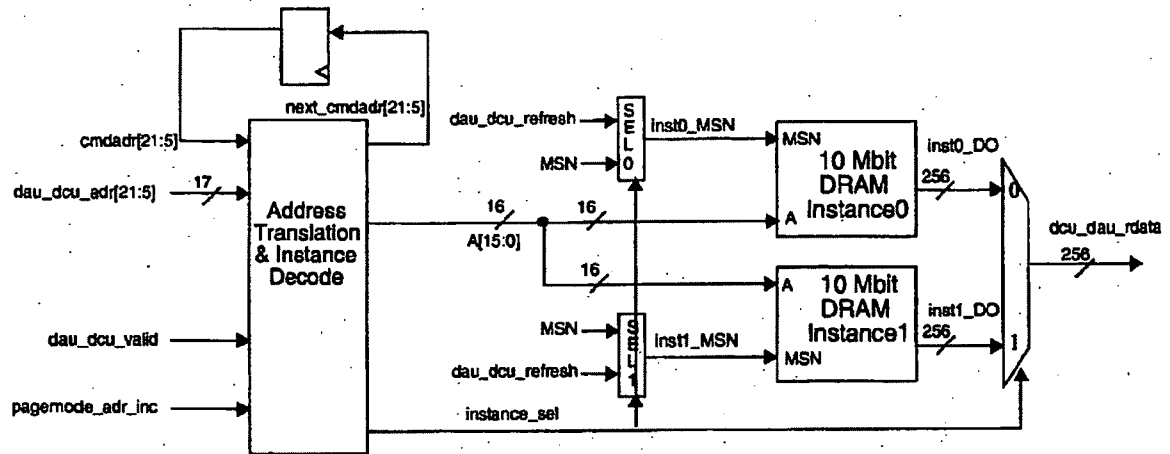


FIG. 115

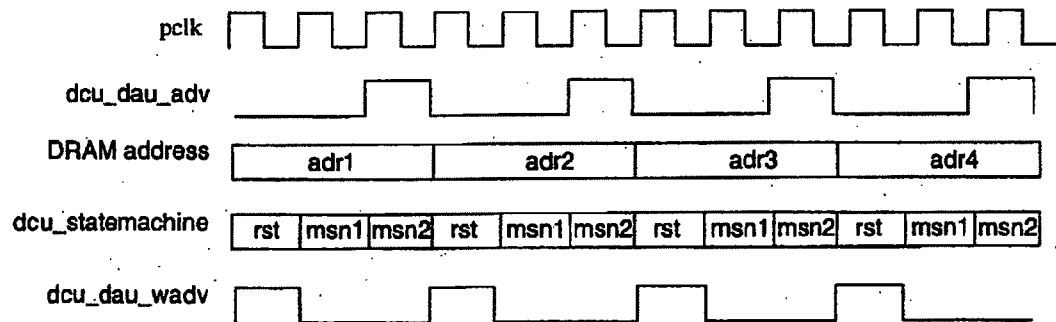


FIG. 116

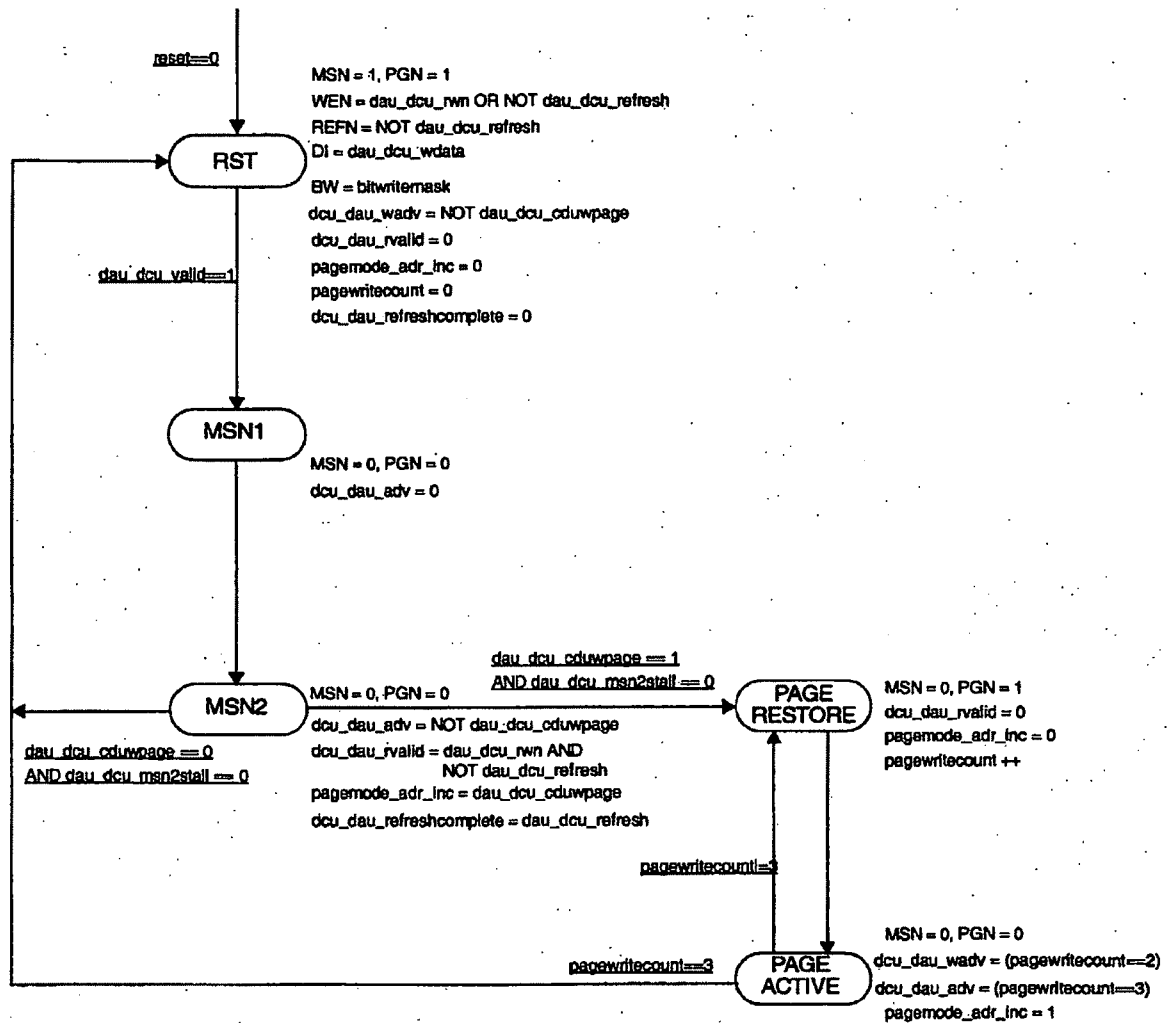


FIG. 117

68/223

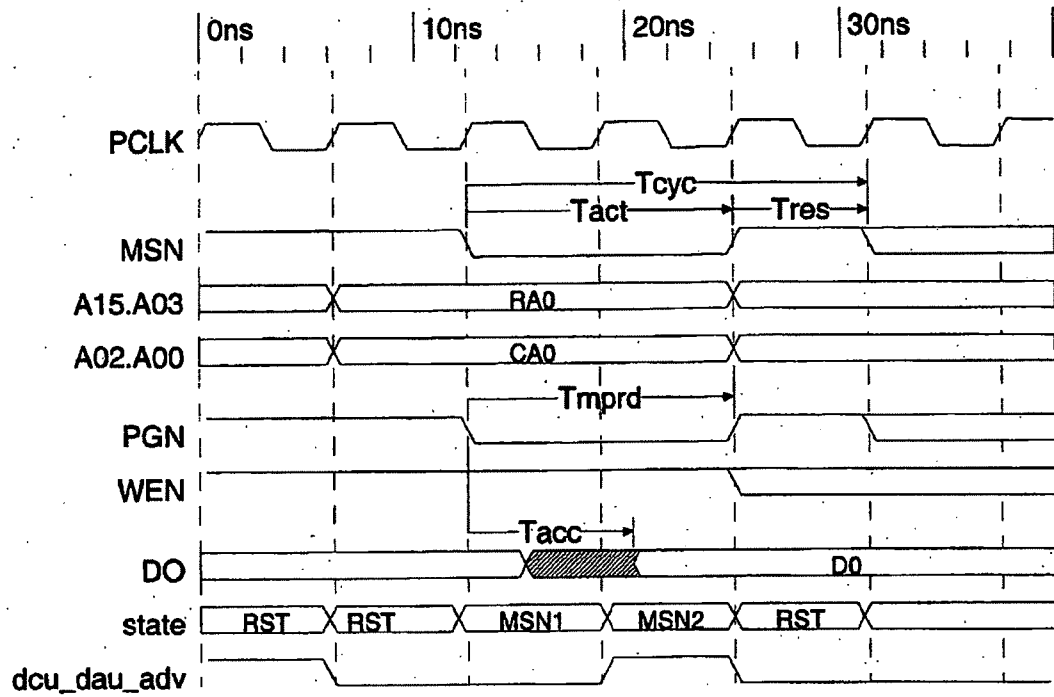


FIG. 118

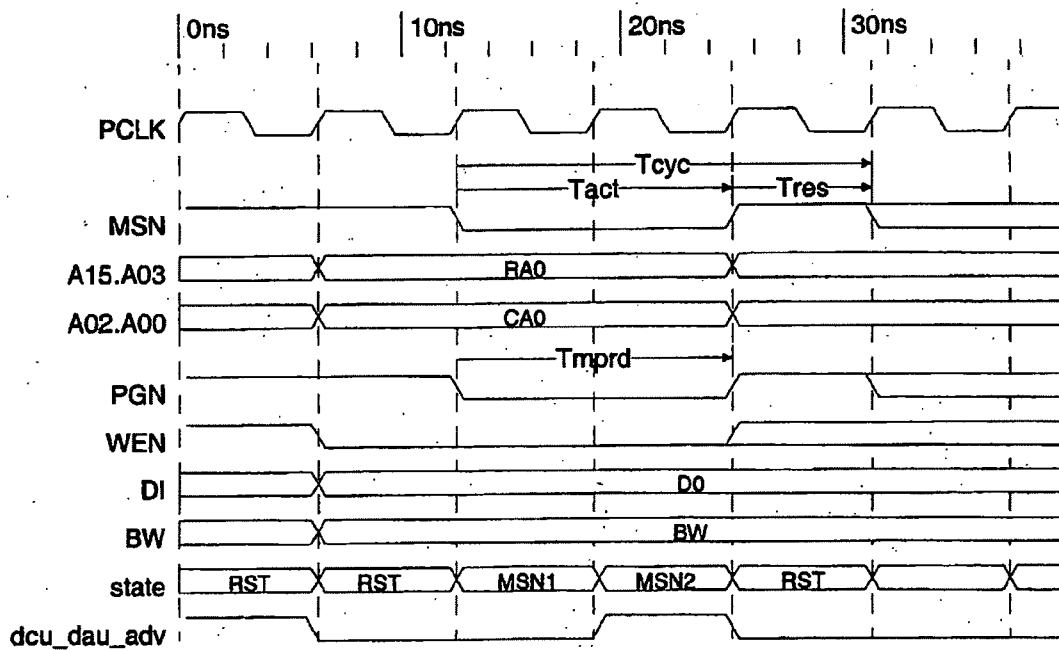


FIG. 119

69/223

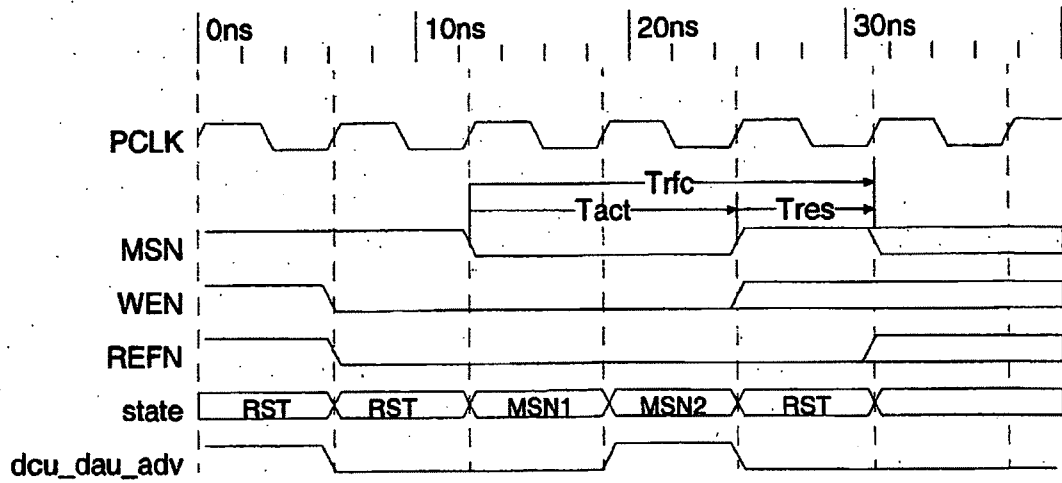


FIG. 120

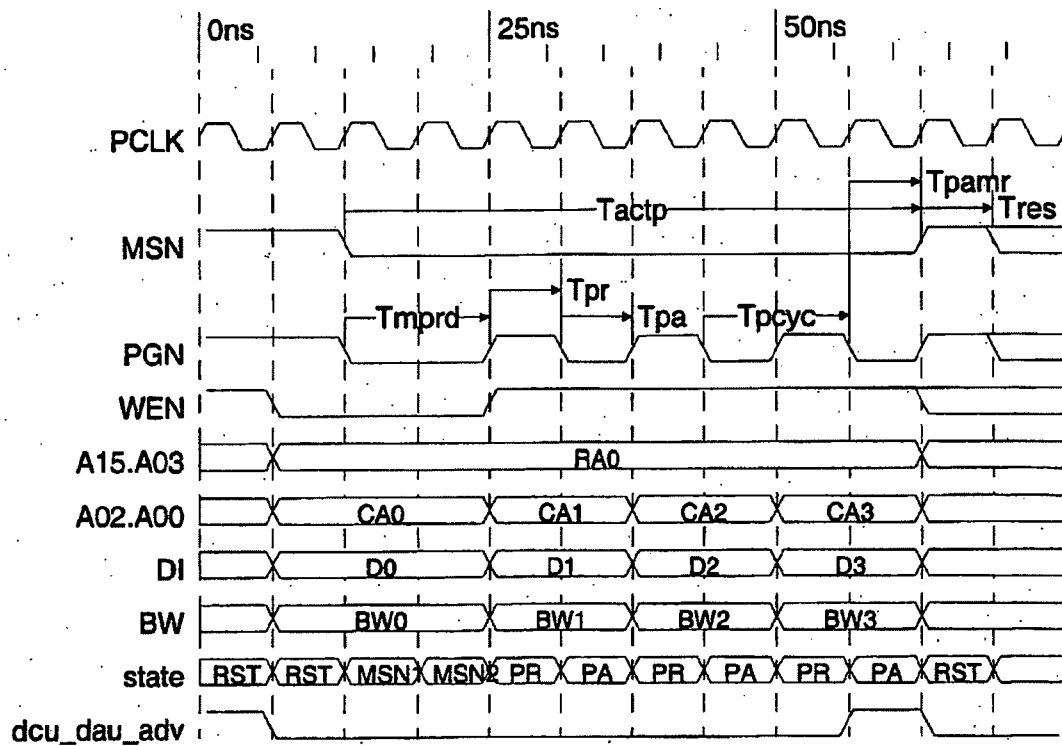


FIG. 121

70/223

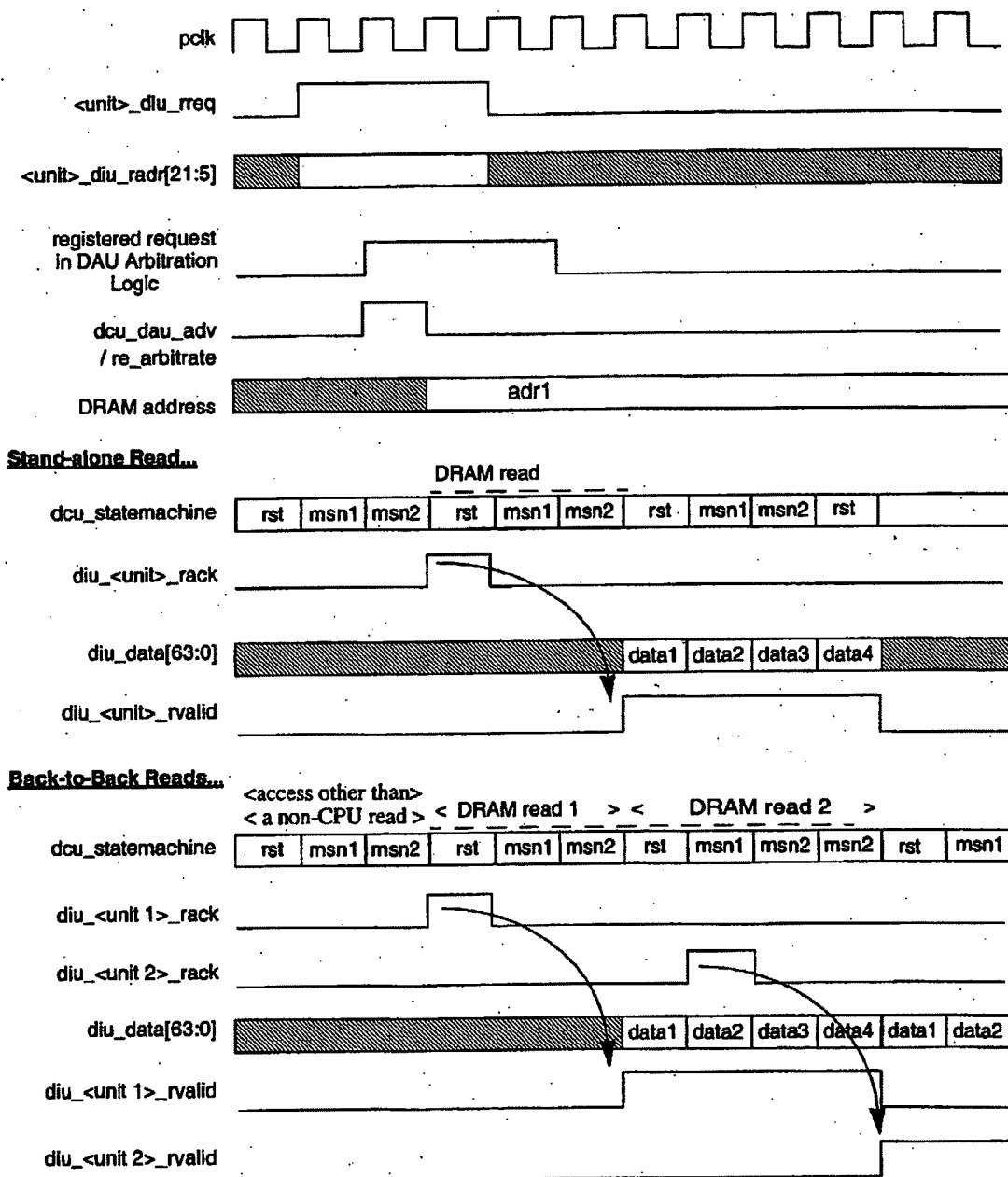


FIG. 122

71/223

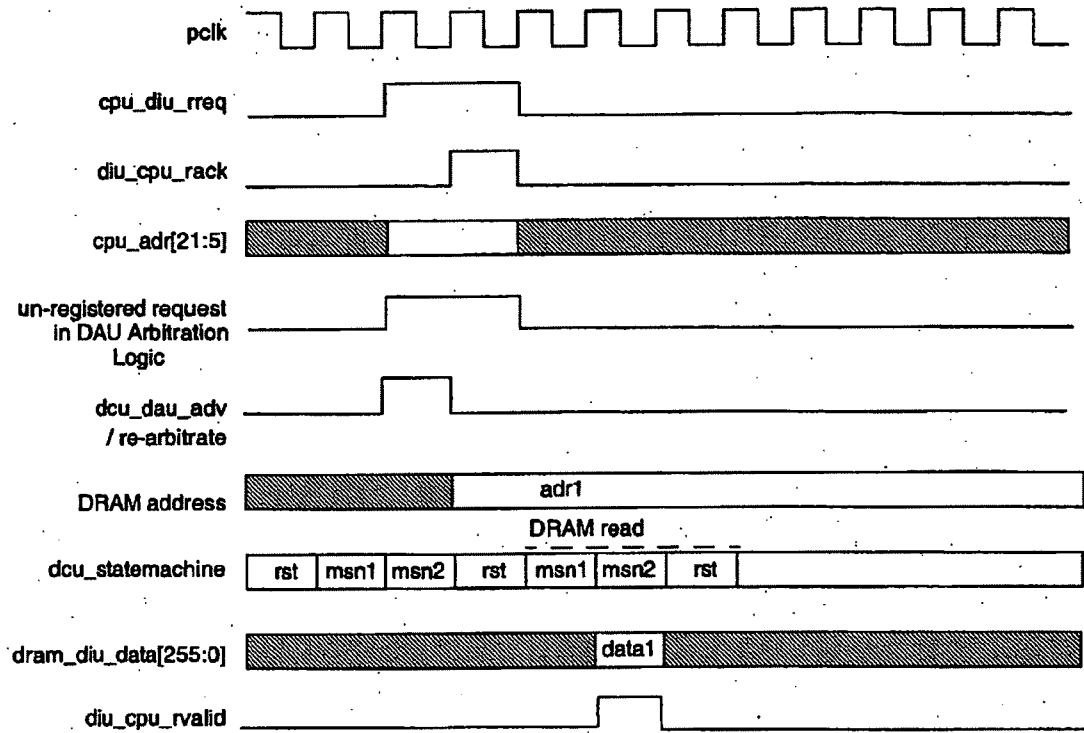


FIG. 123

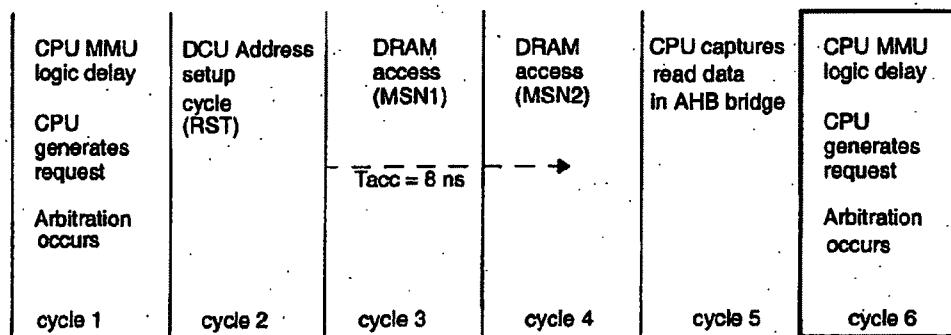


FIG. 124

72/223

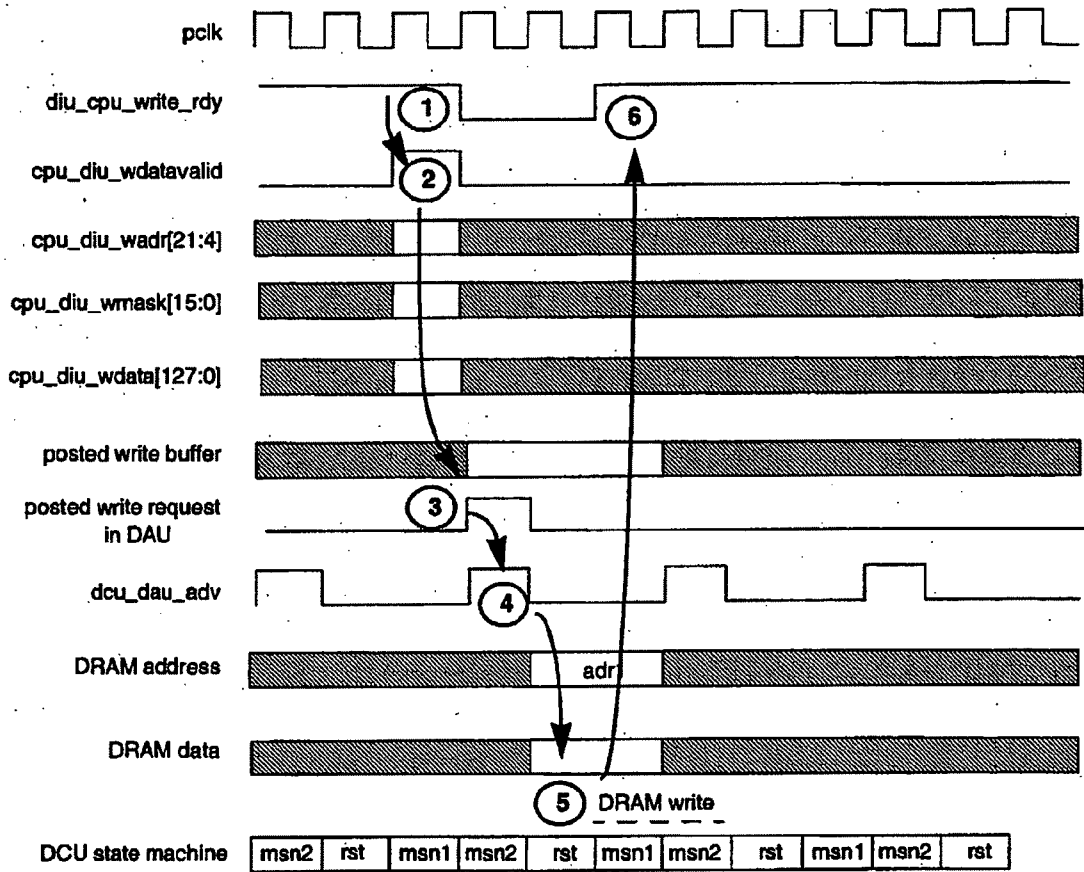


FIG. 125

73/223

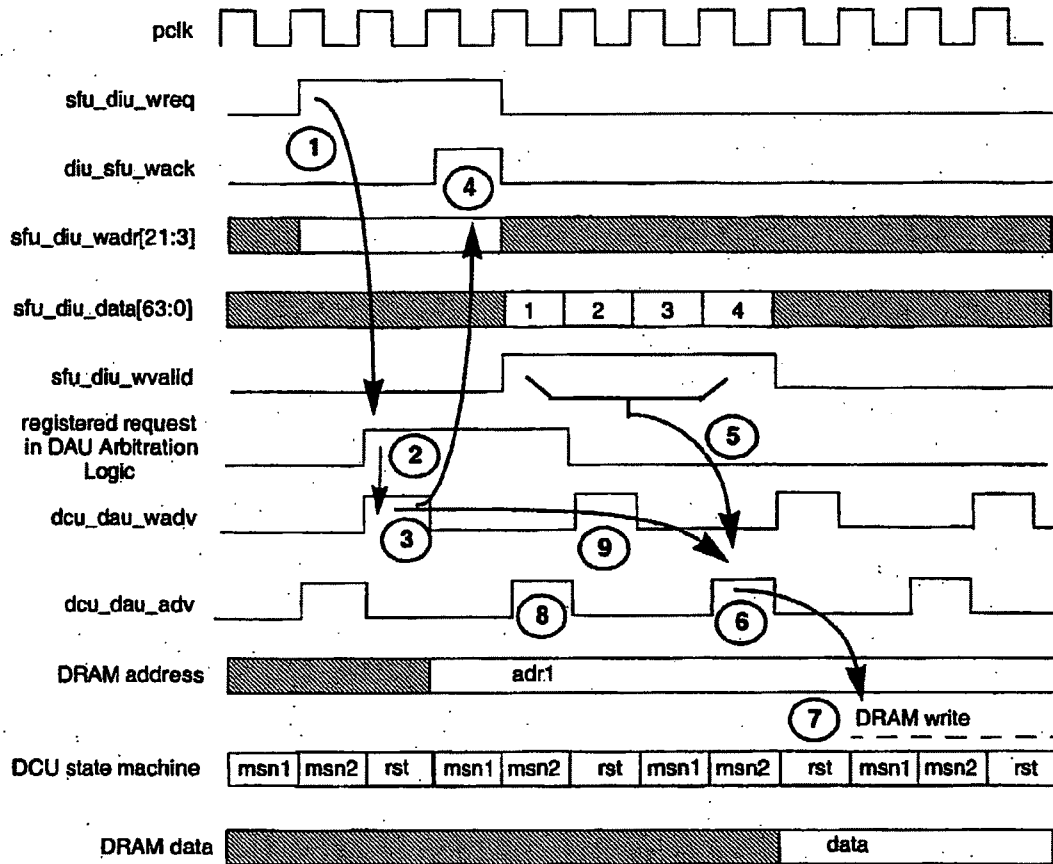


FIG. 126

74/223

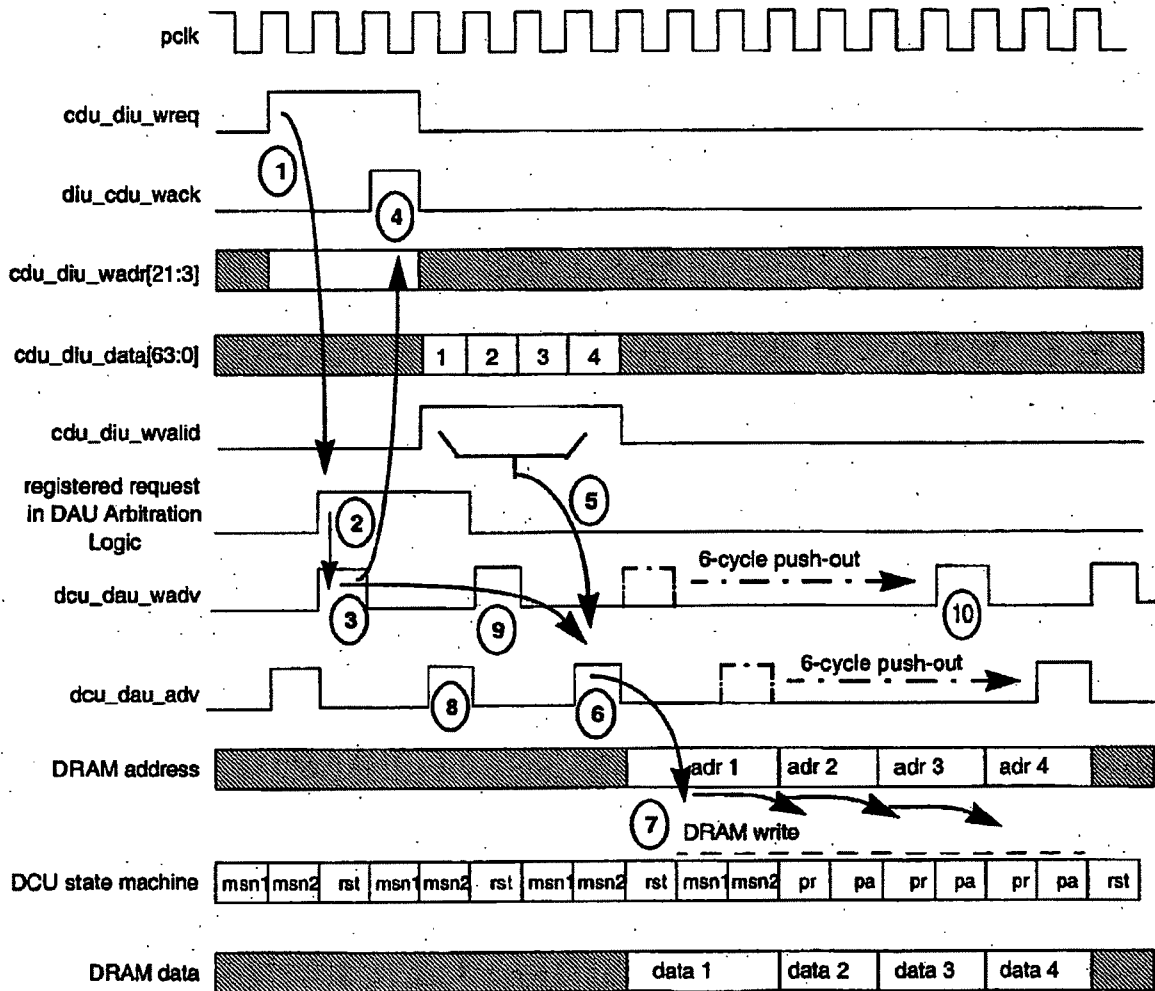


FIG. 127

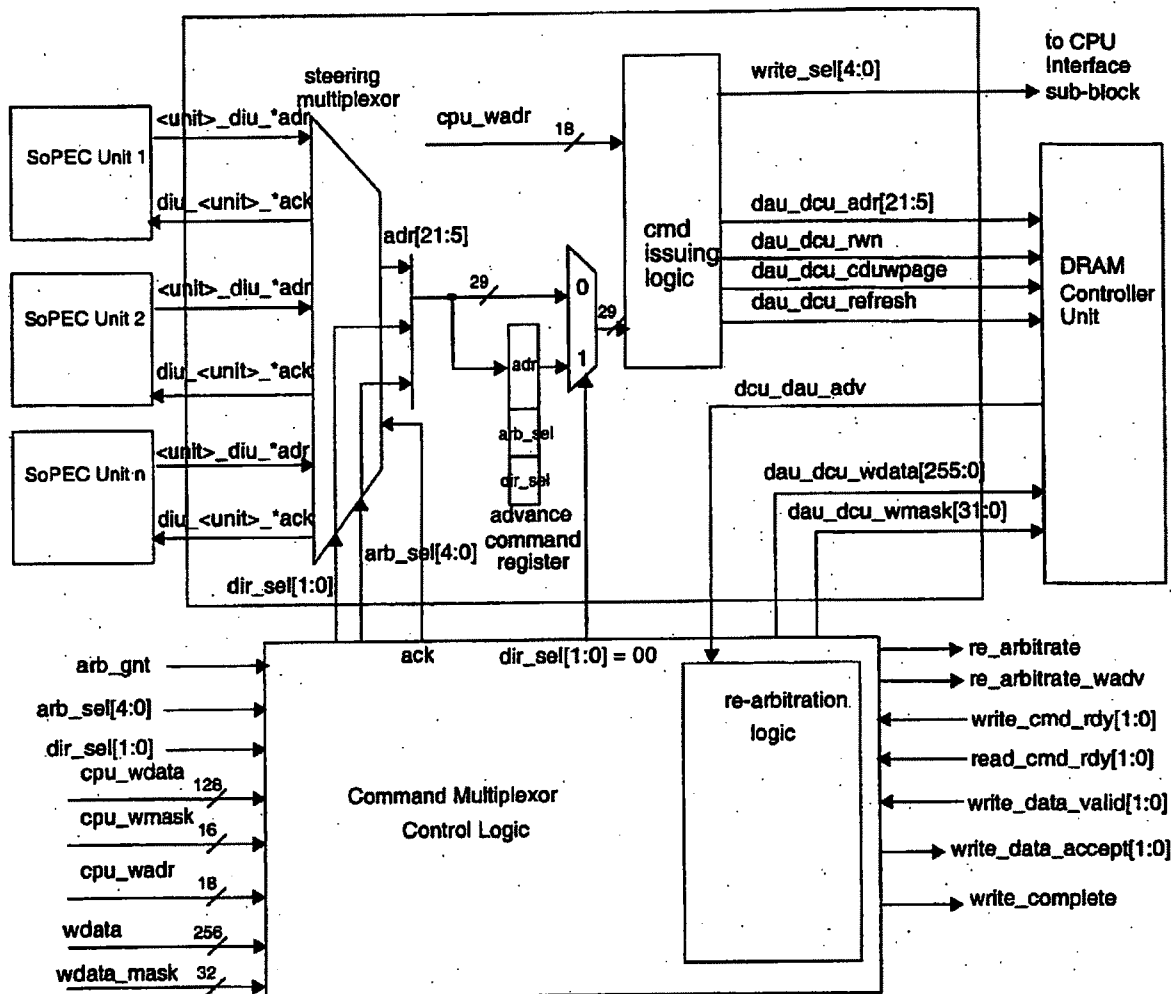


FIG. 128

76/223

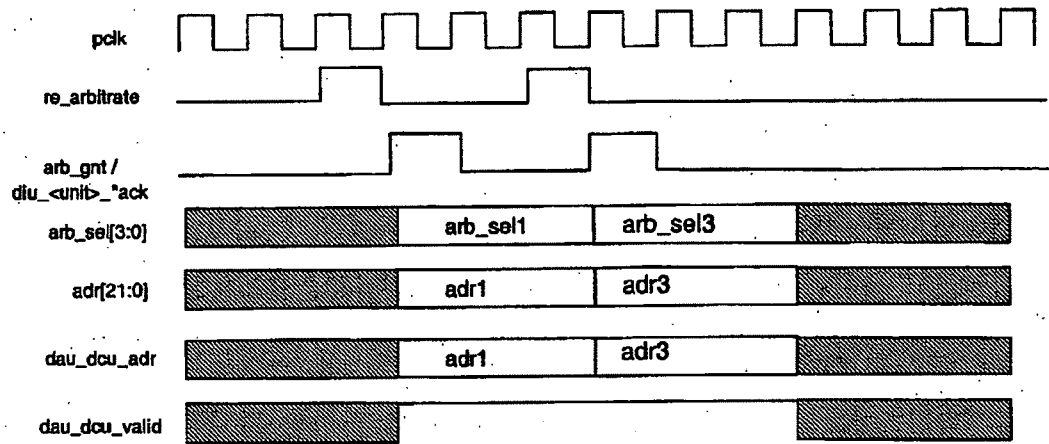


FIG. 129

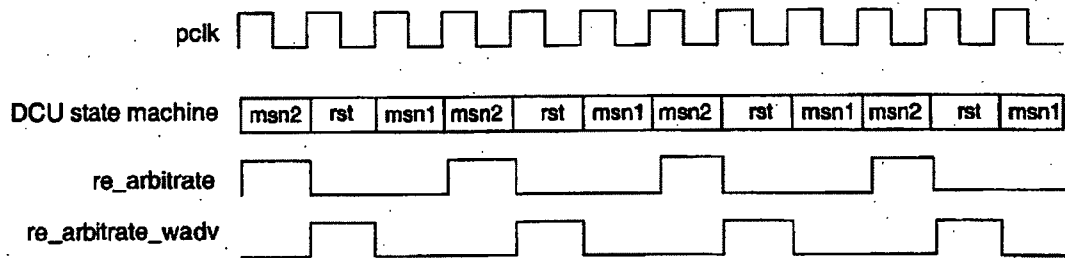


FIG. 130

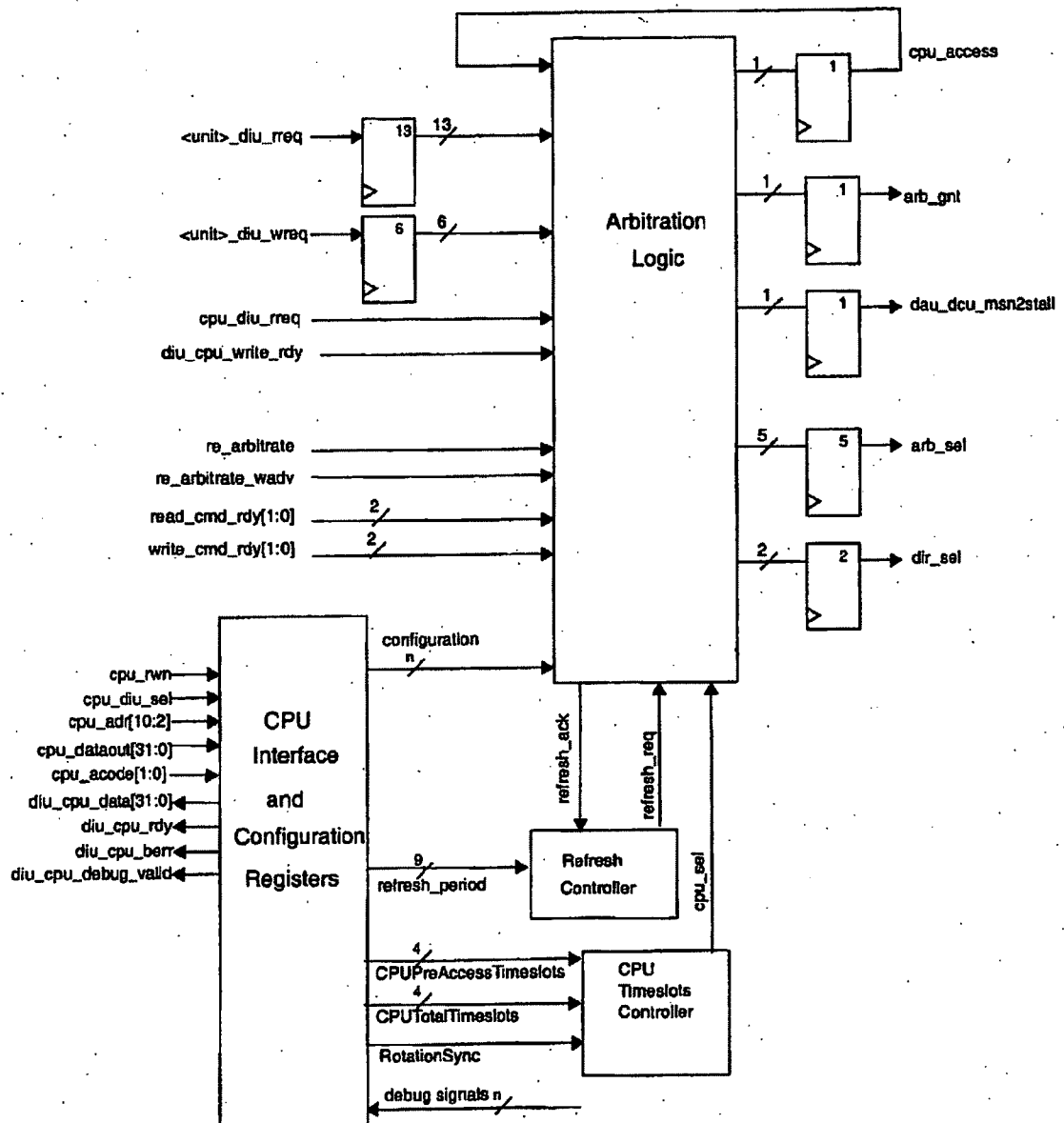


FIG. 131

78/223

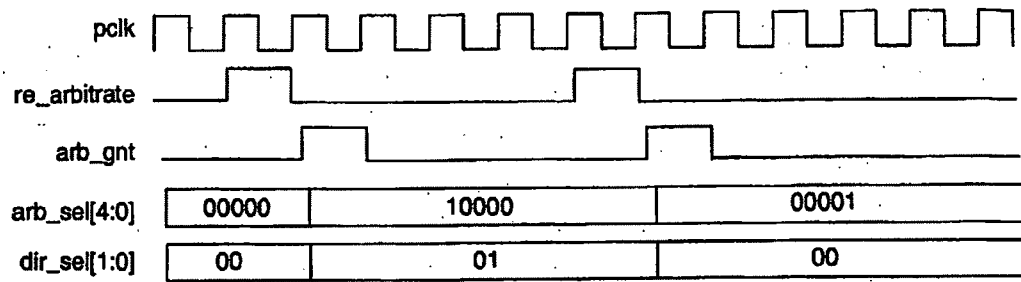


FIG. 132

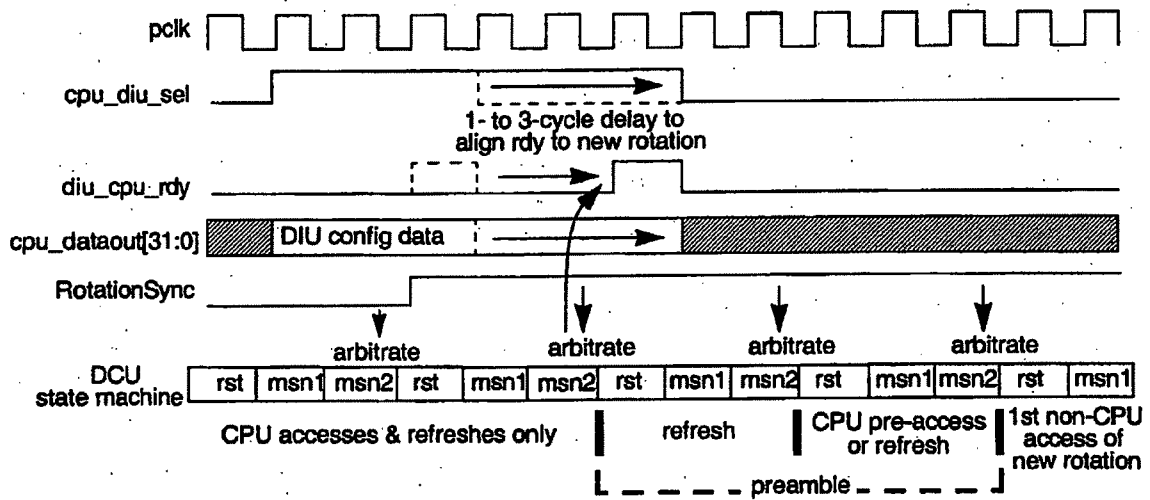


FIG. 133

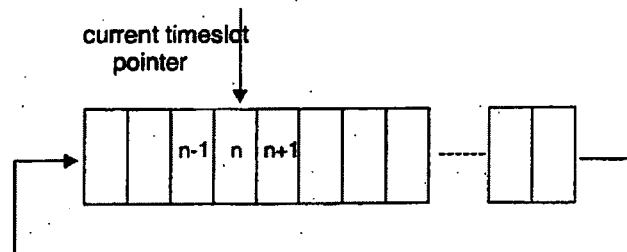


FIG. 134

79/223

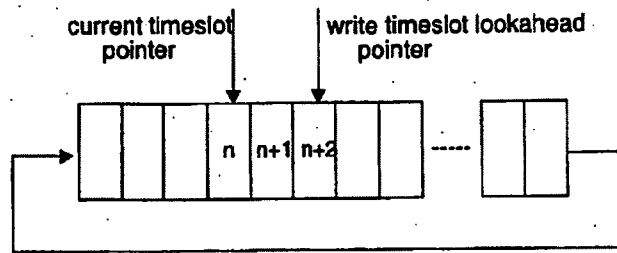


FIG. 135

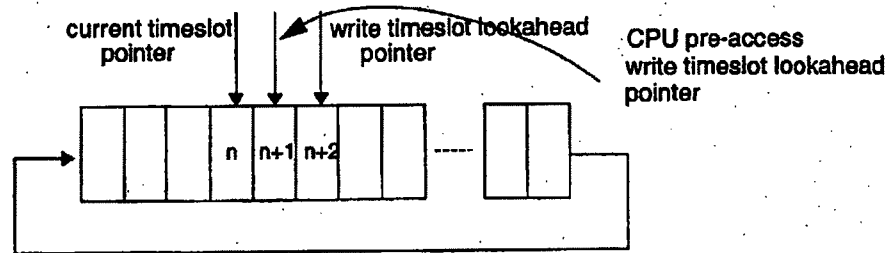


FIG. 136

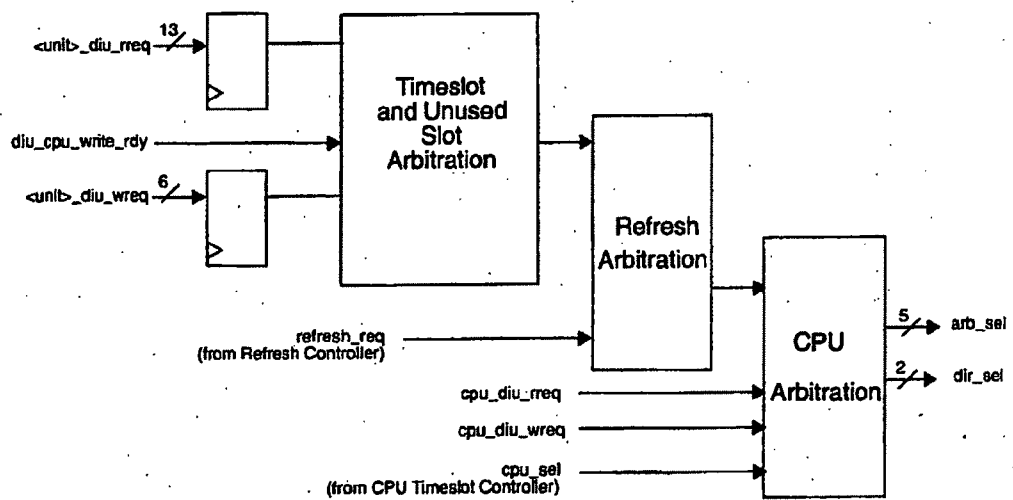


FIG. 137

80/223

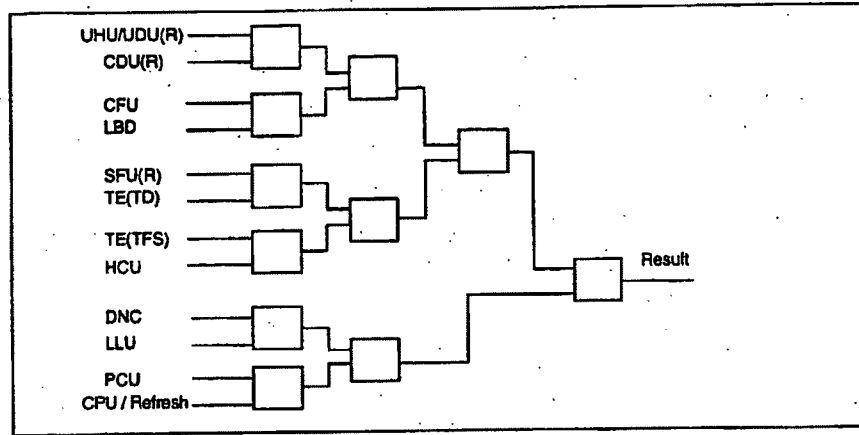


FIG. 138

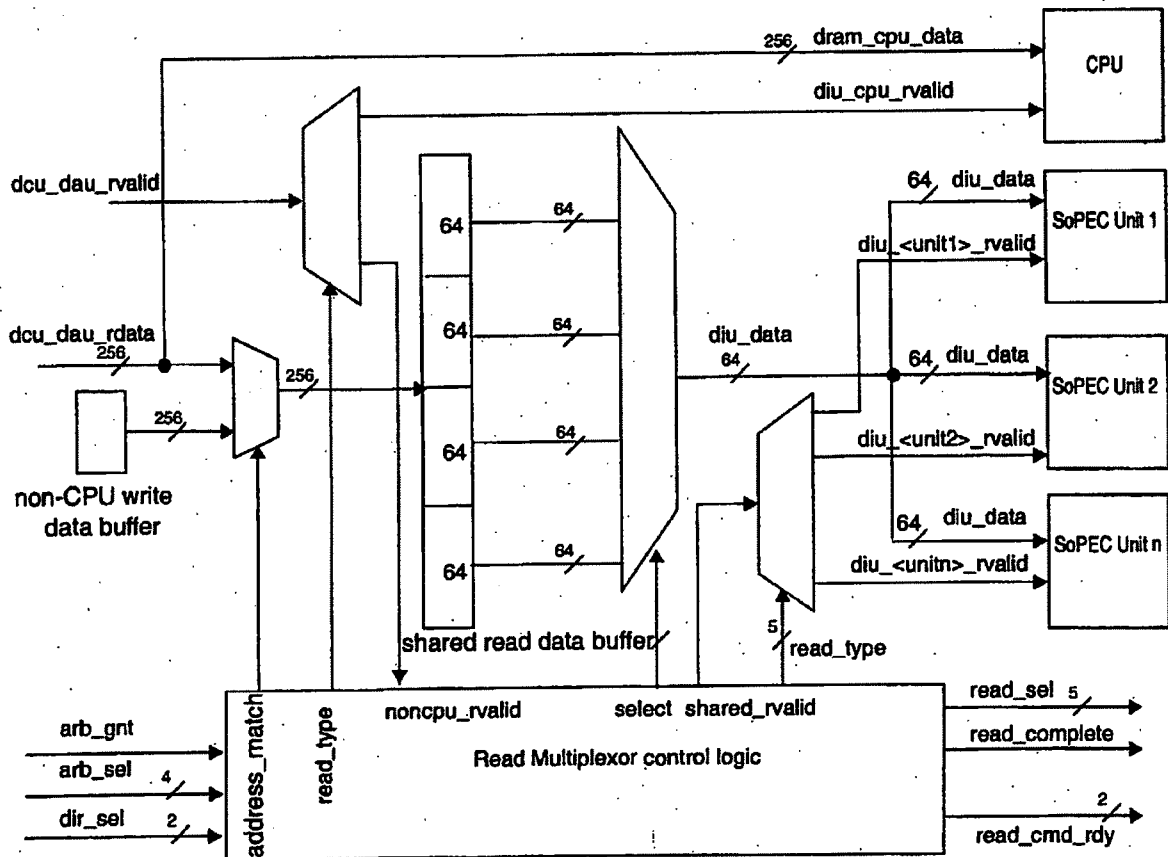


FIG. 139

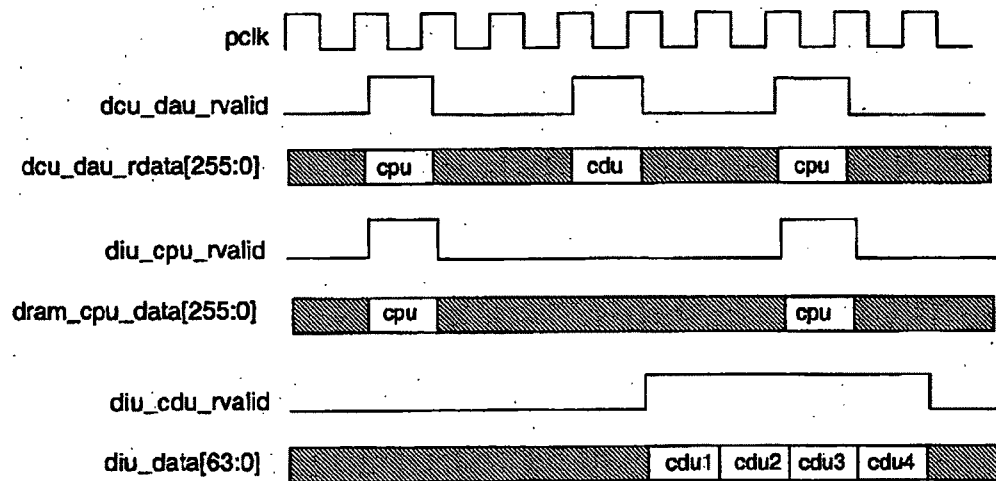


FIG. 140

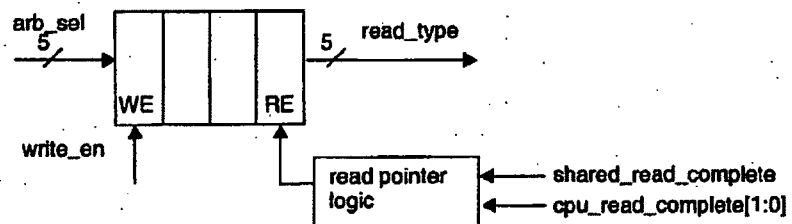


FIG. 141

82/223

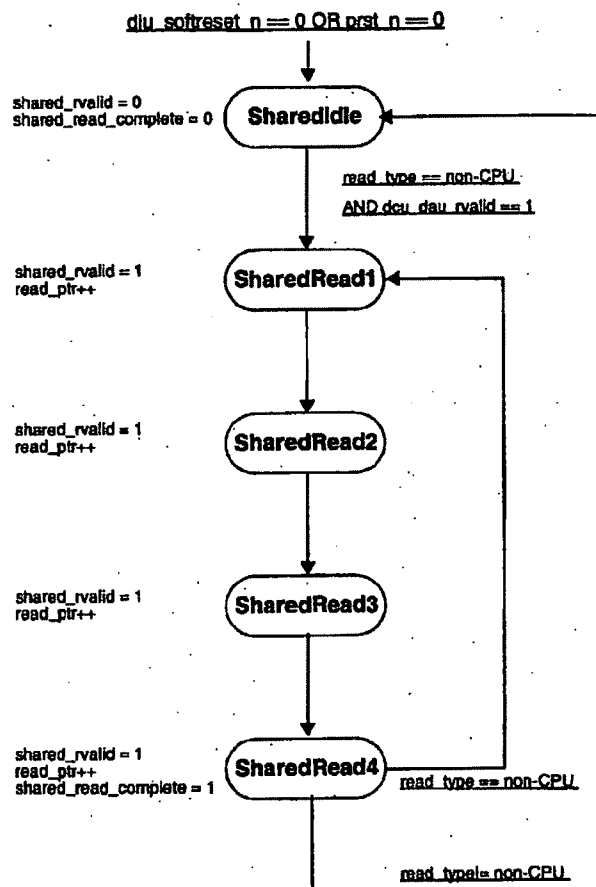


FIG. 142

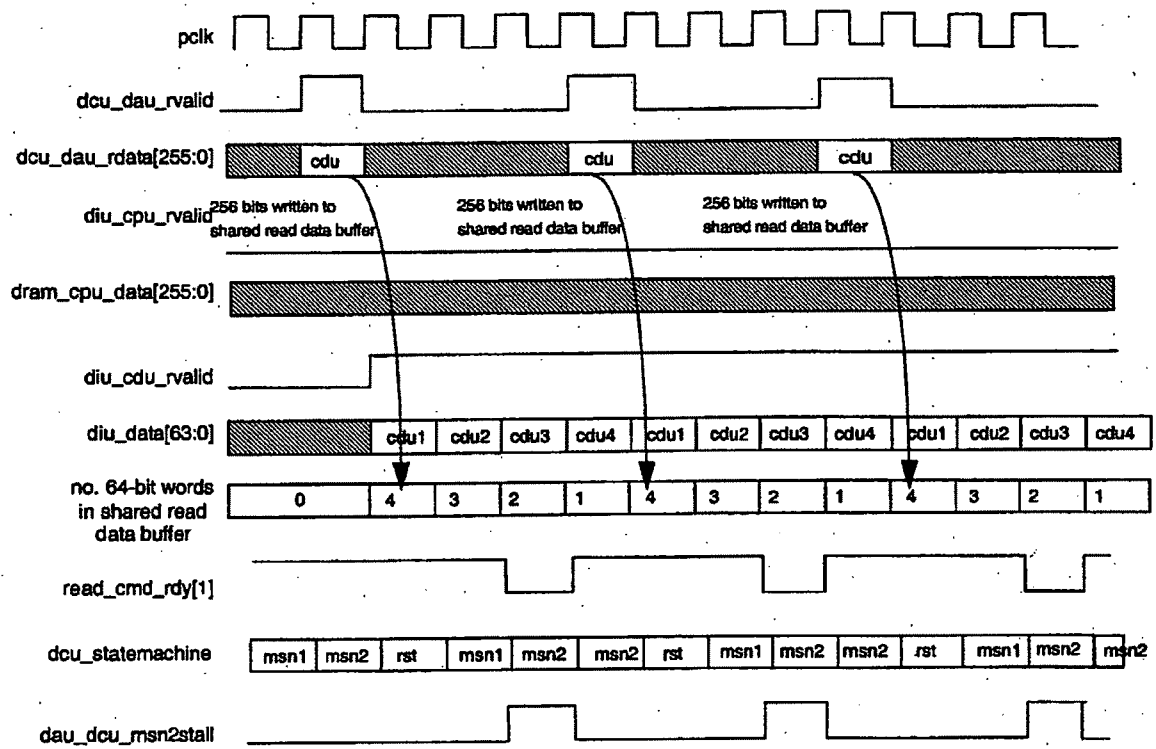


FIG. 143

84/223

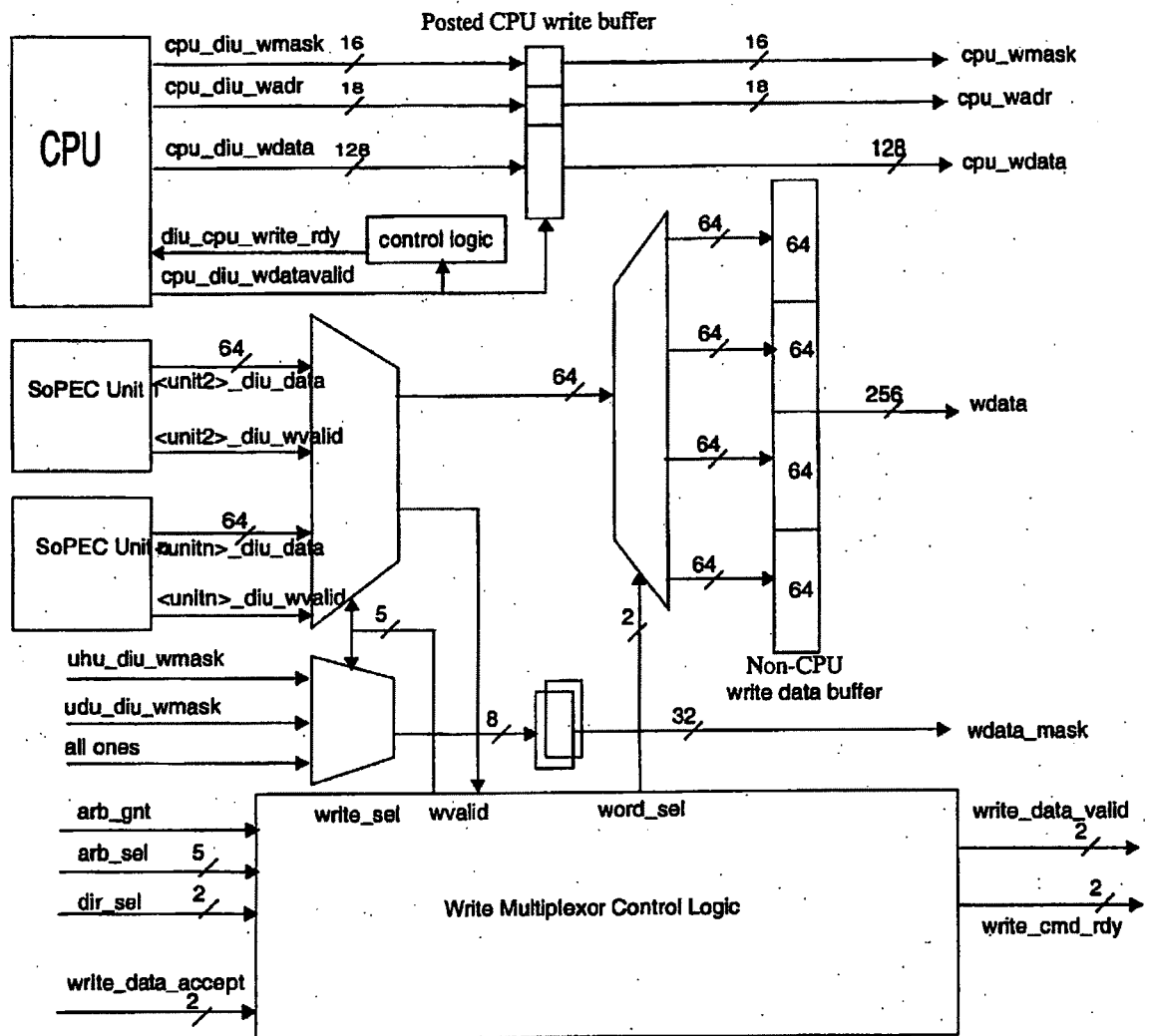


FIG. 144

85/223

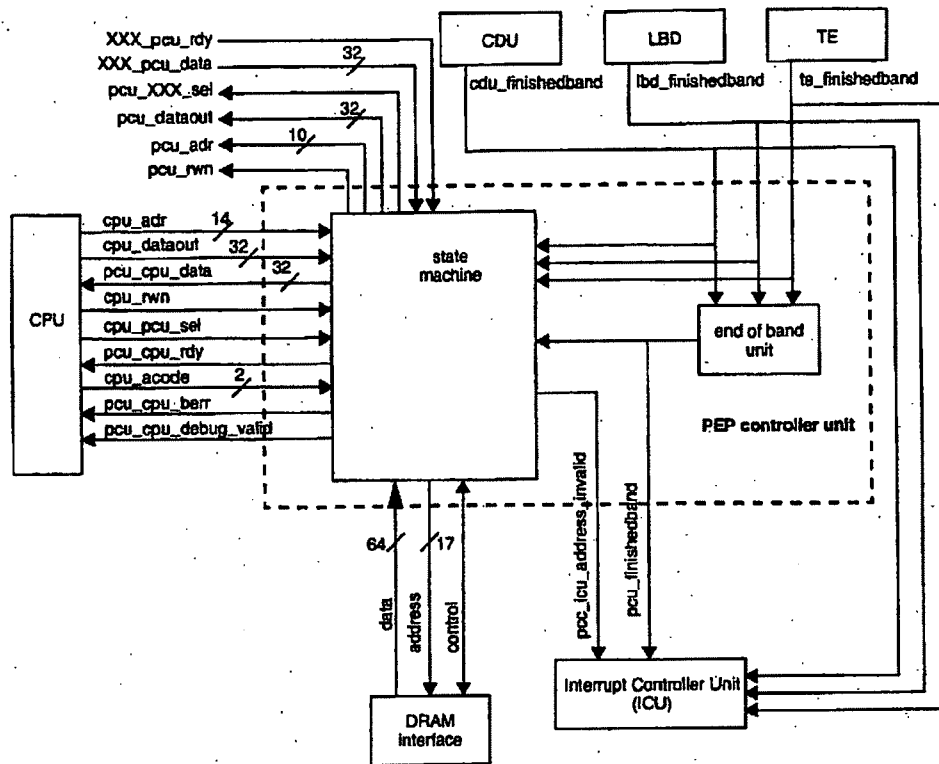


FIG. 145

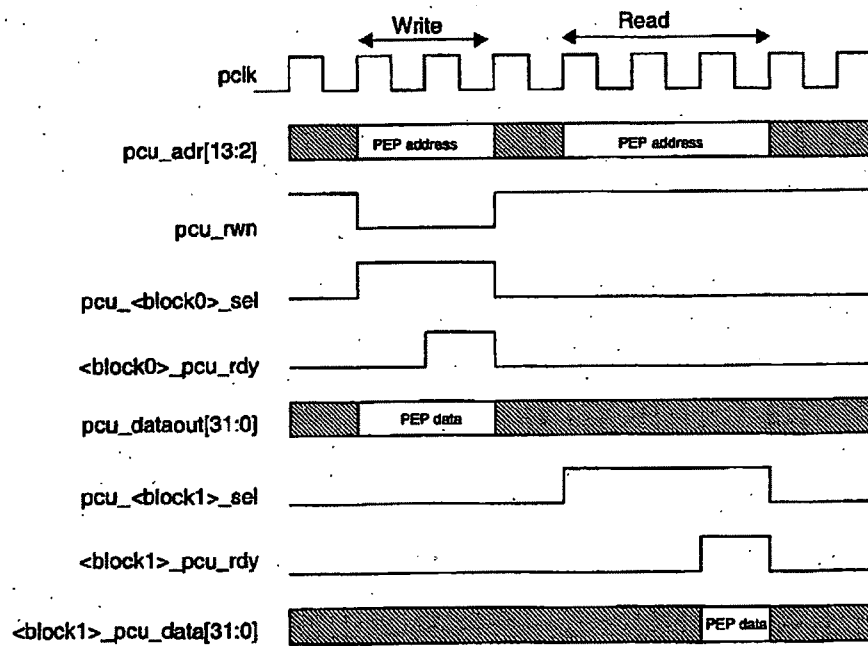


FIG. 146

86/223

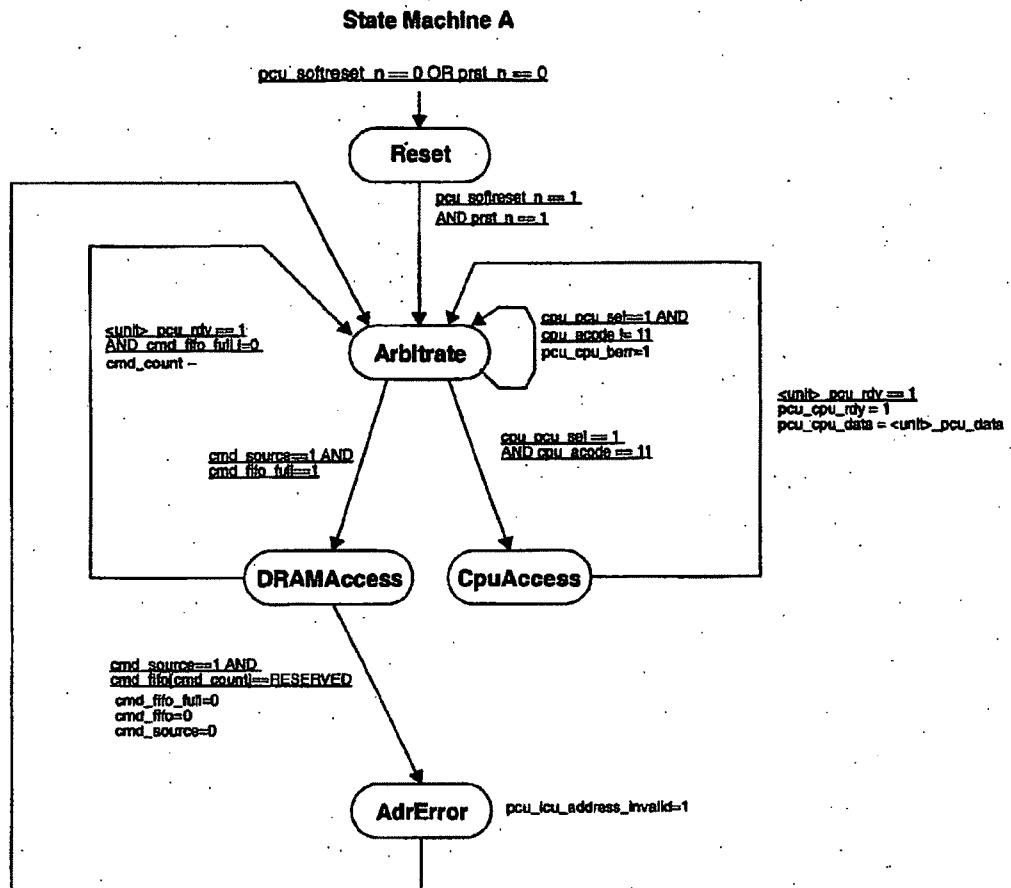


FIG. 147

87/223

State Machine B

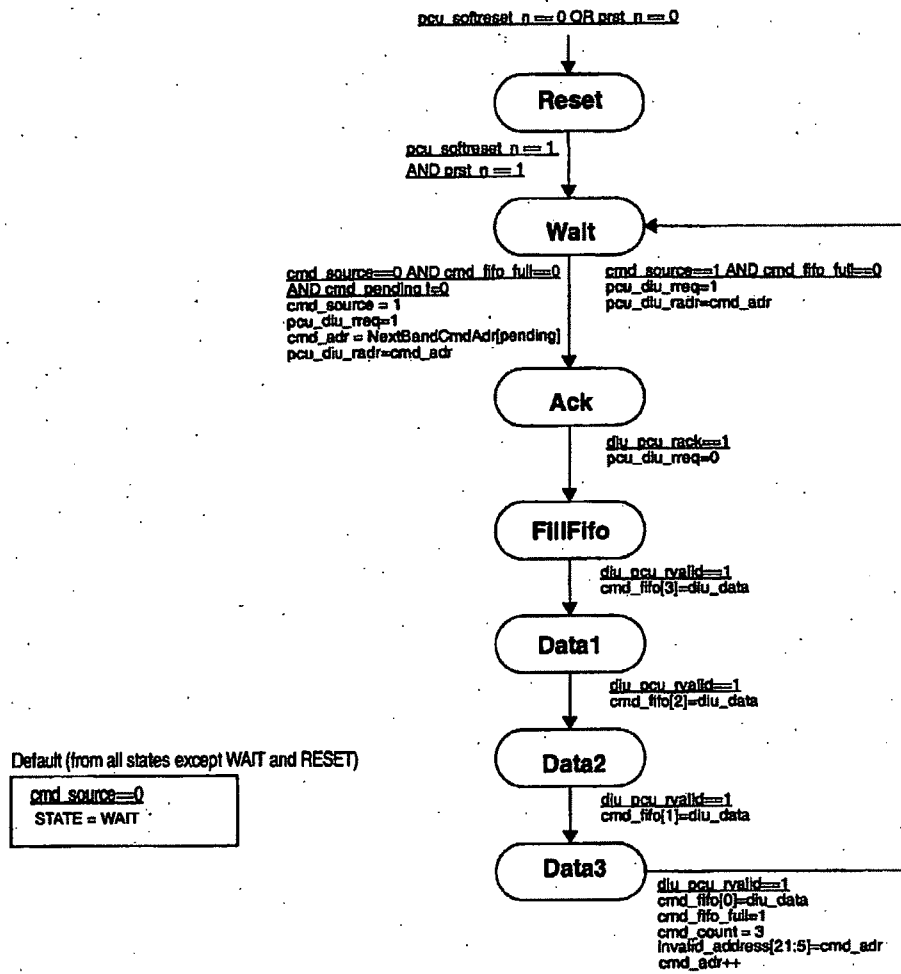


FIG. 148

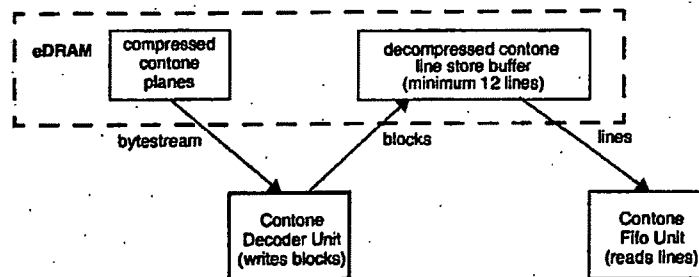


FIG. 149

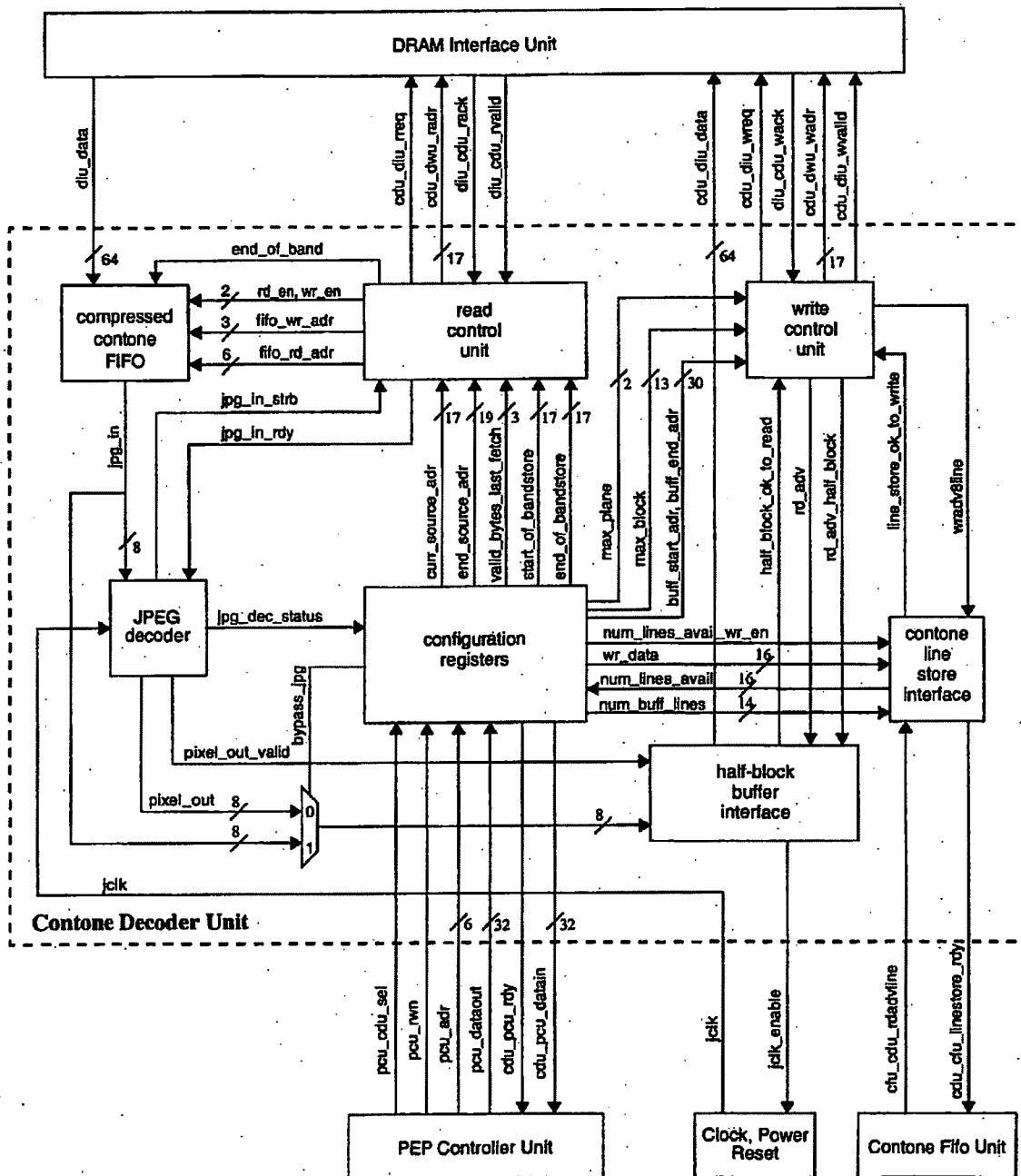


FIG. 150

89/223

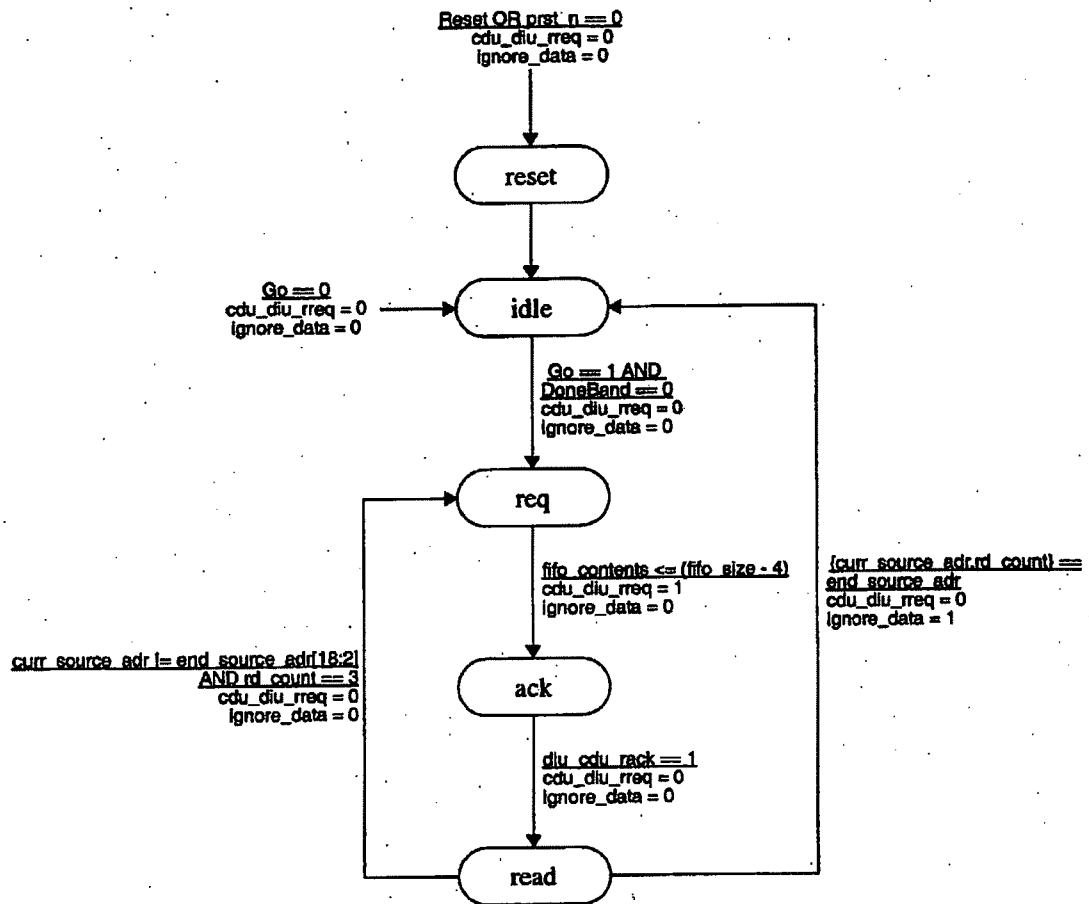


FIG. 151

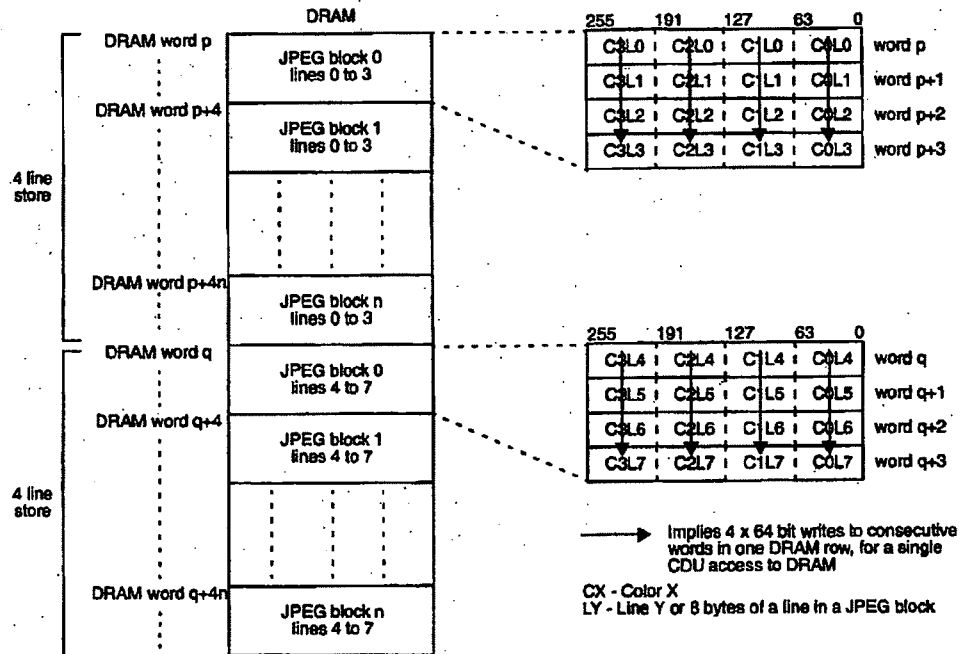


FIG. 152

91/223

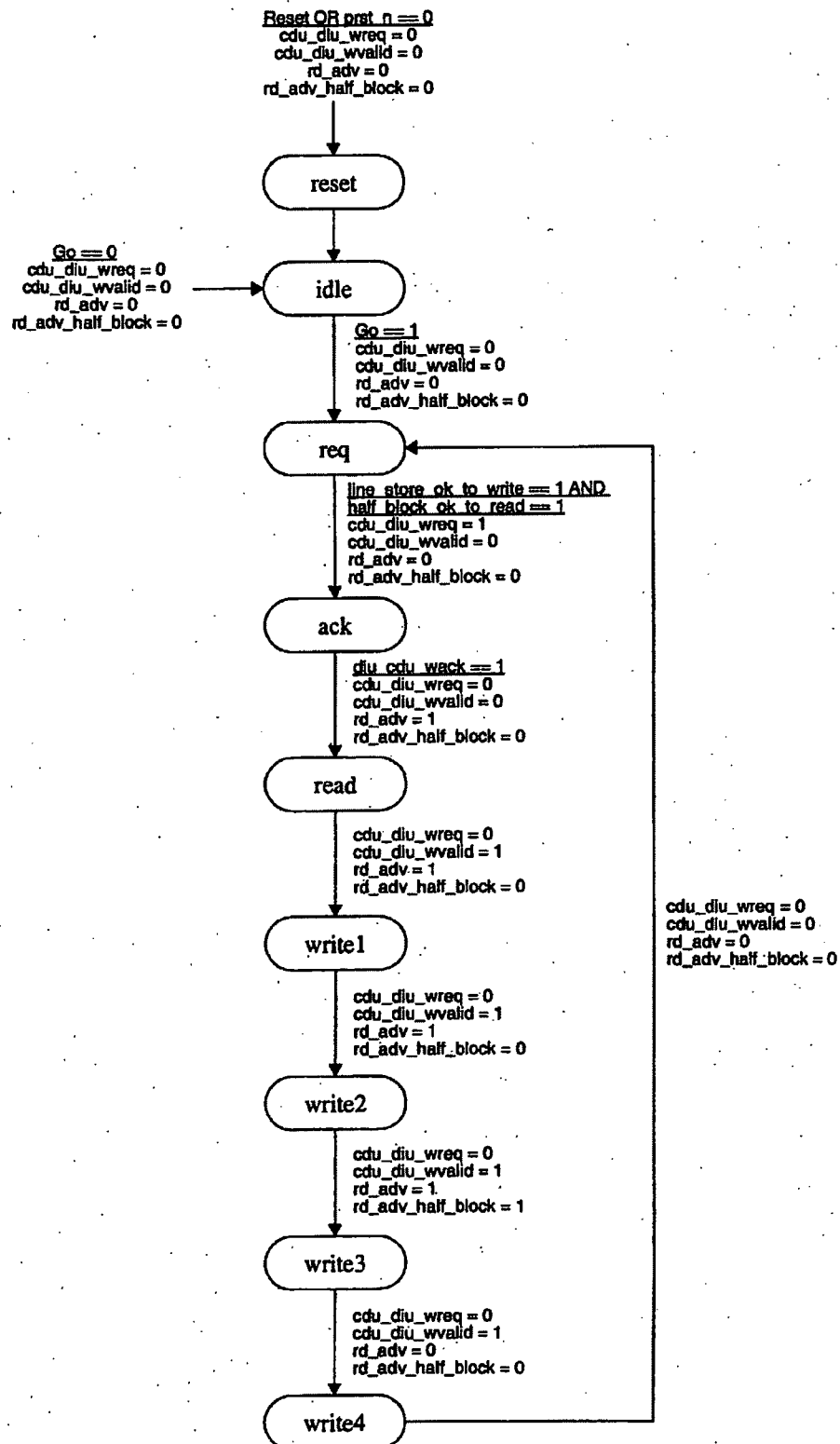


FIG. 153

92/223

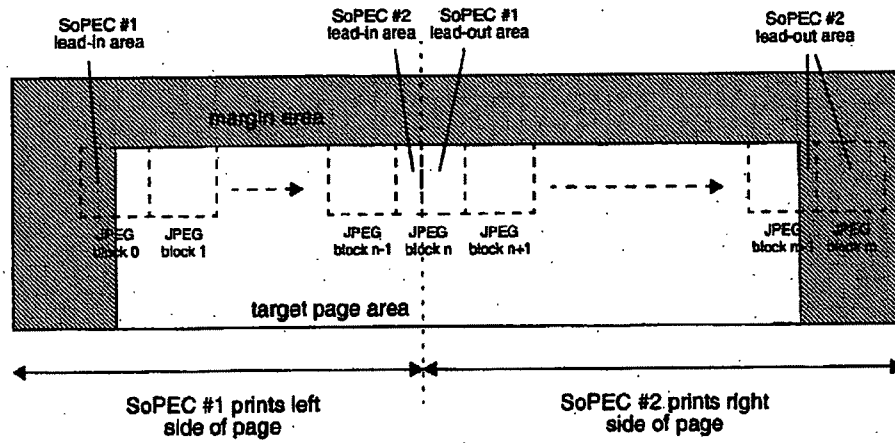


FIG. 154

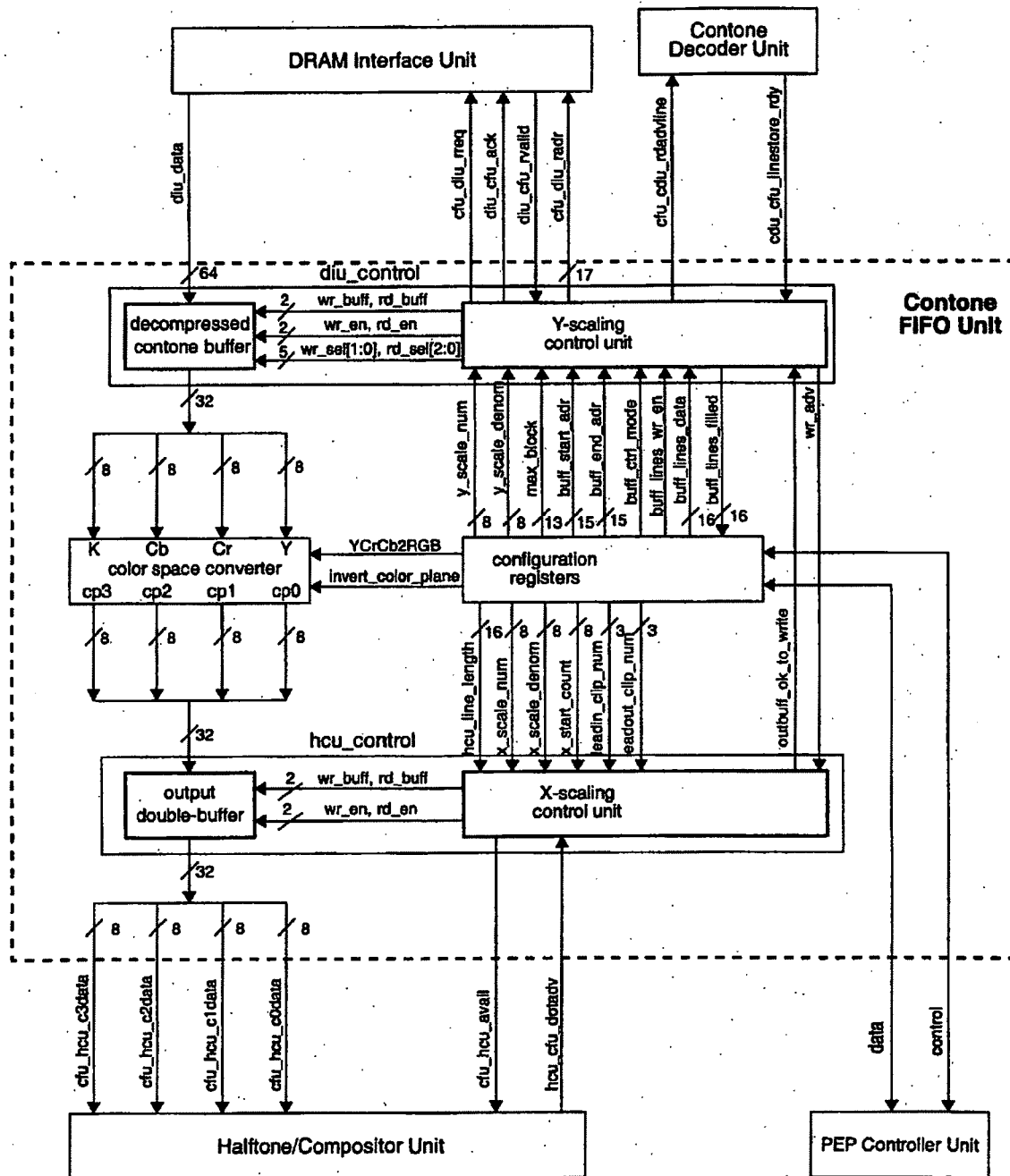


FIG. 155

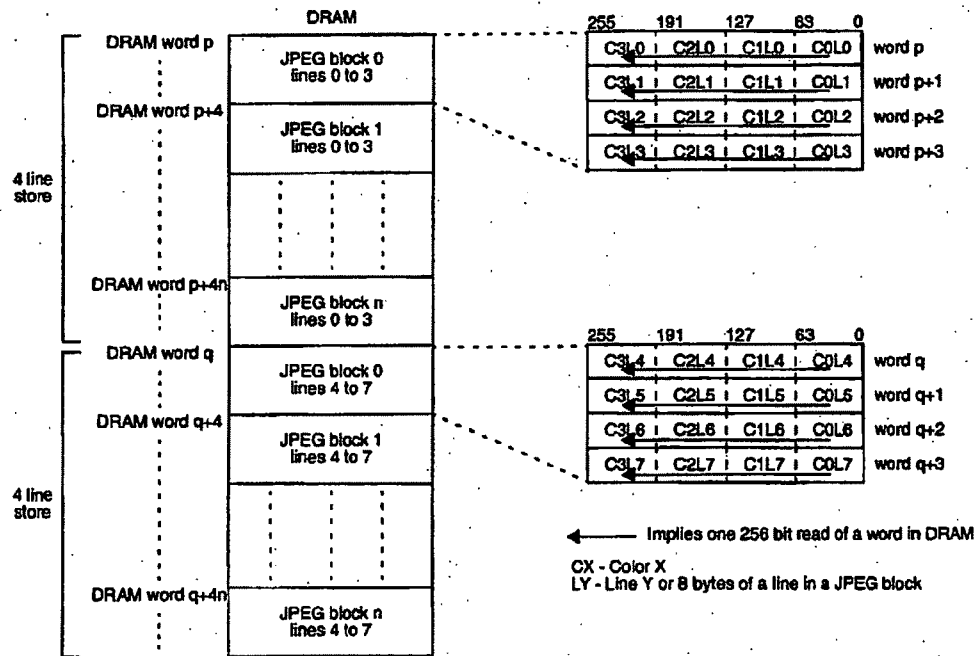


FIG. 156

95/223

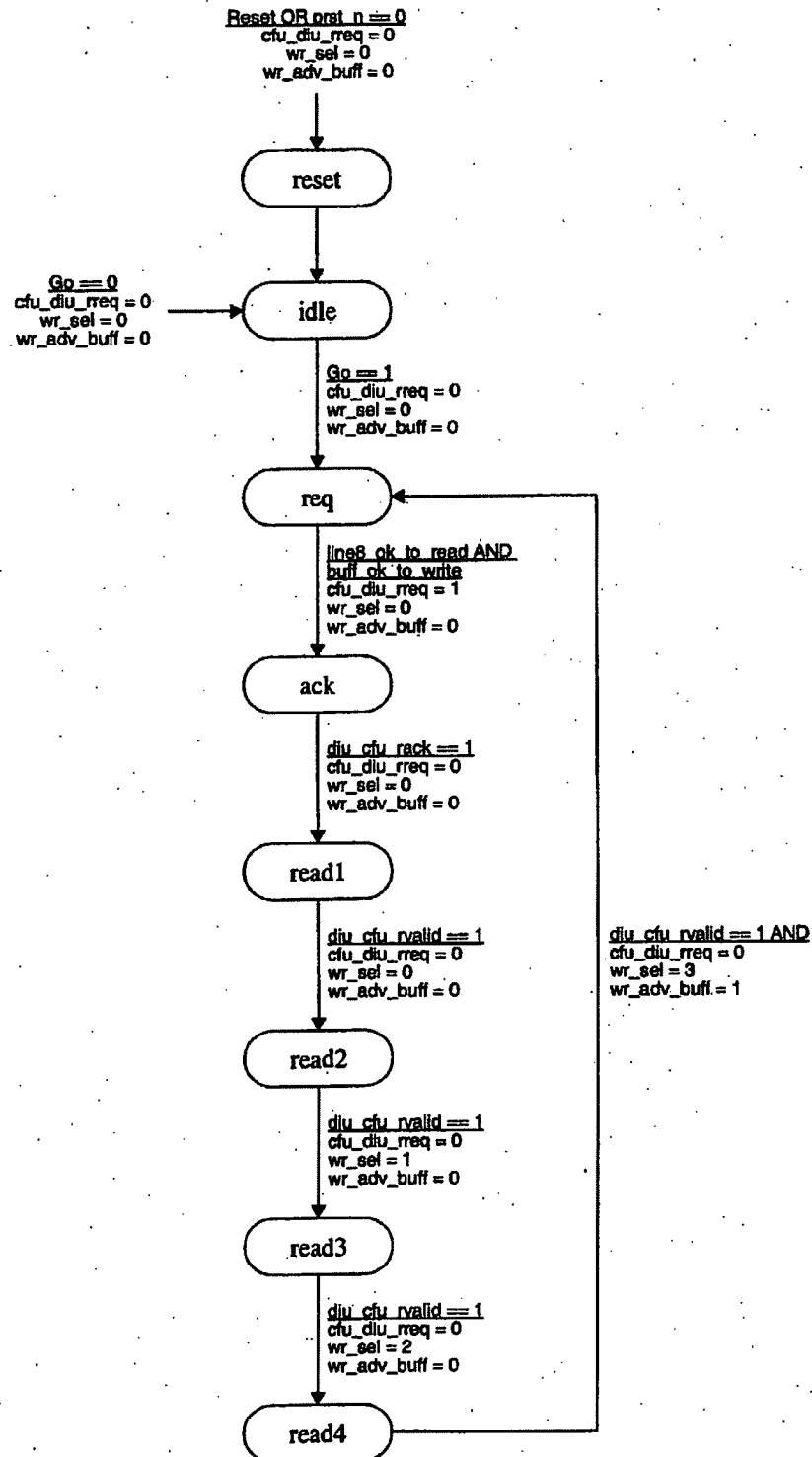


FIG. 157

96/223

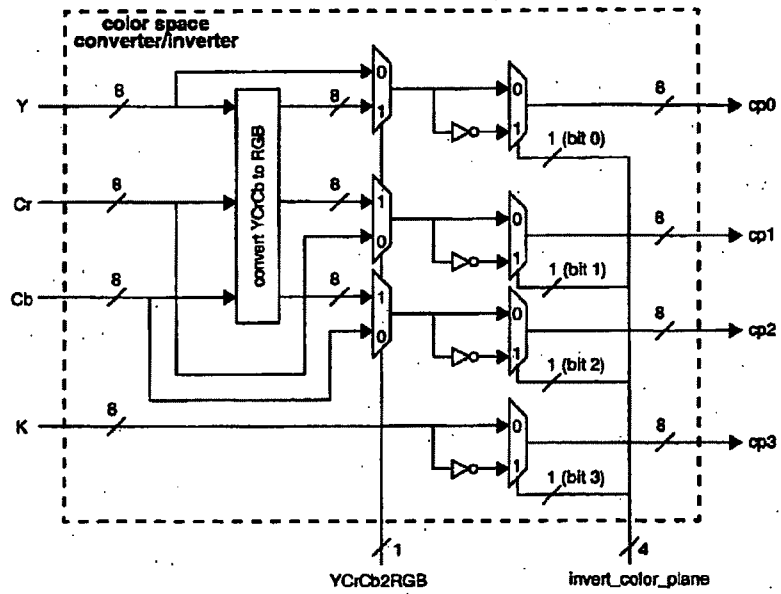


FIG. 158

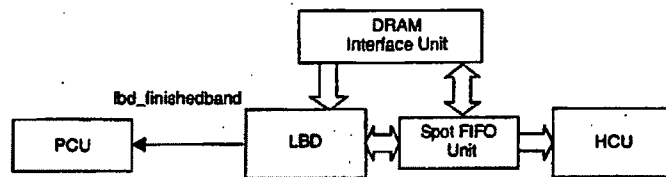


FIG. 159

97/223

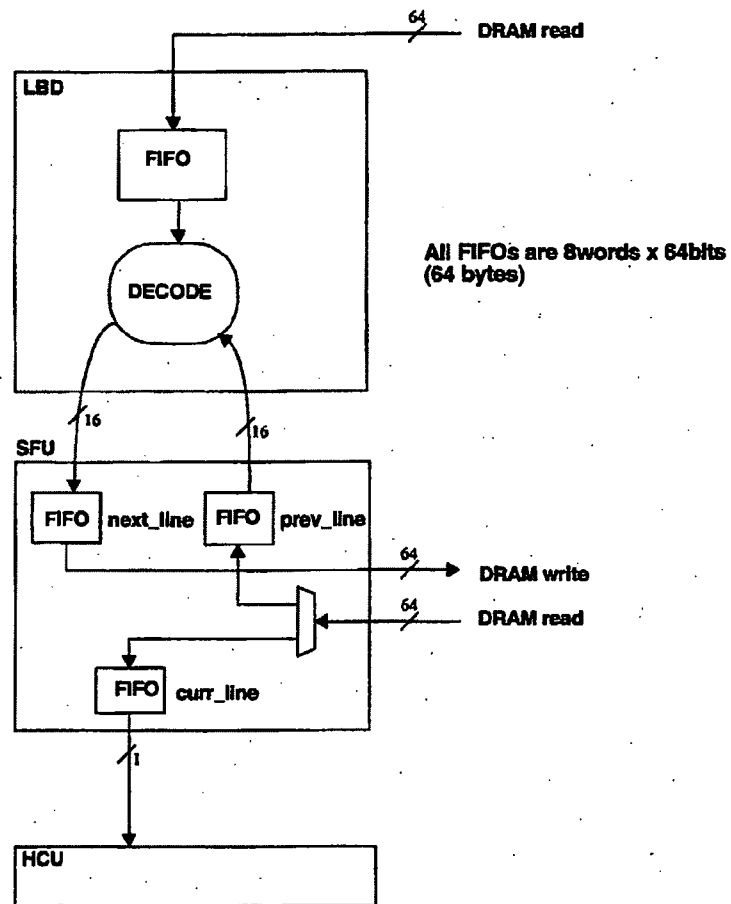


FIG. 160

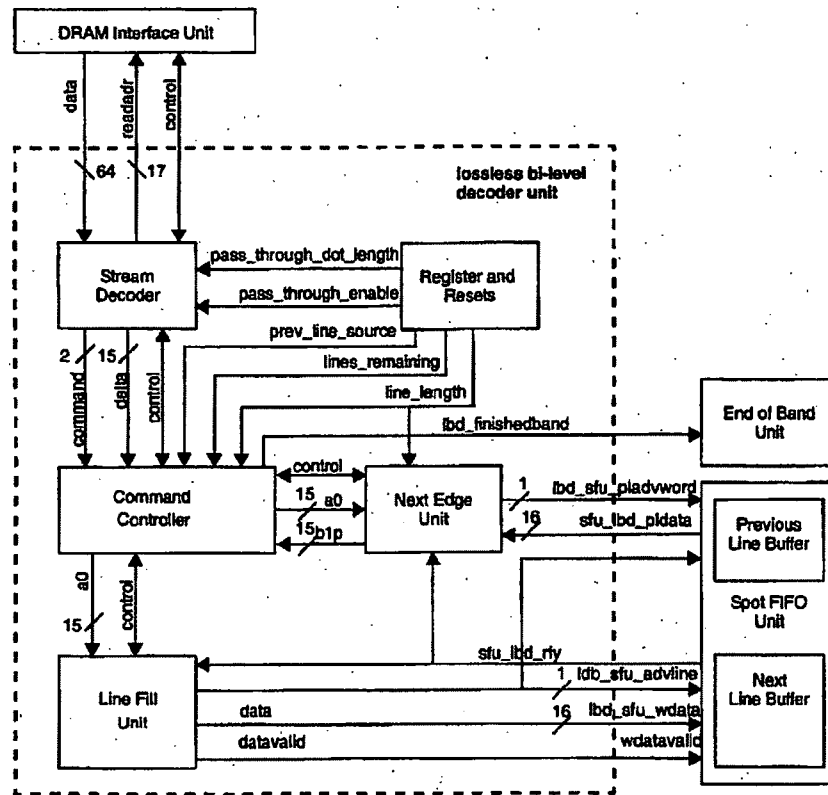


FIG. 161

99/223

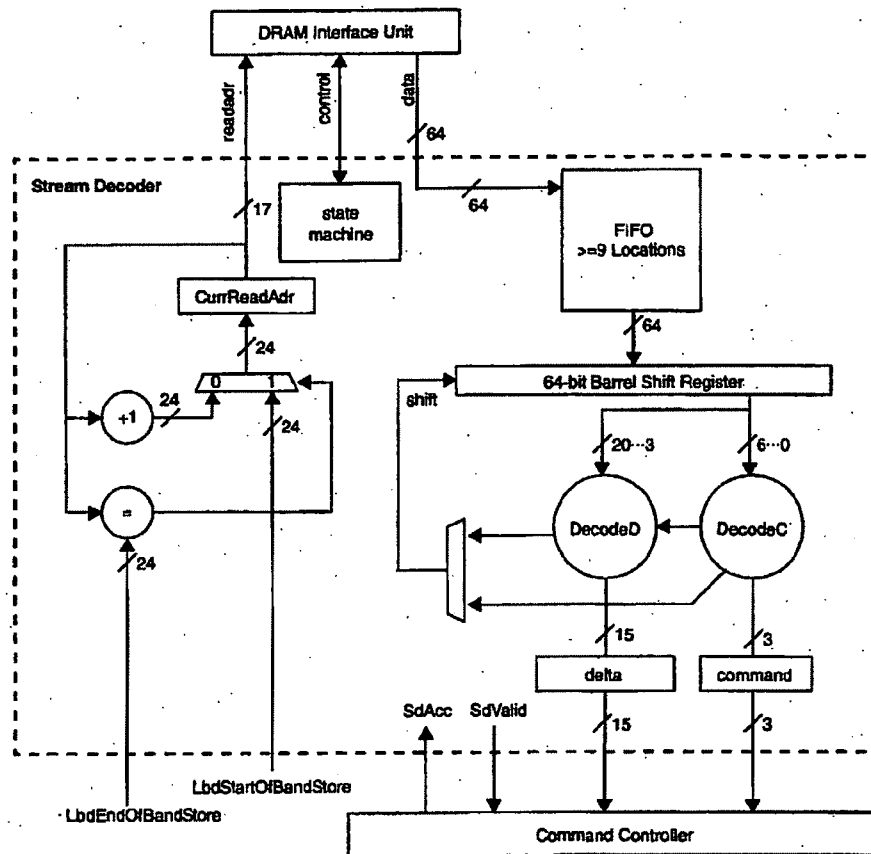


FIG. 162

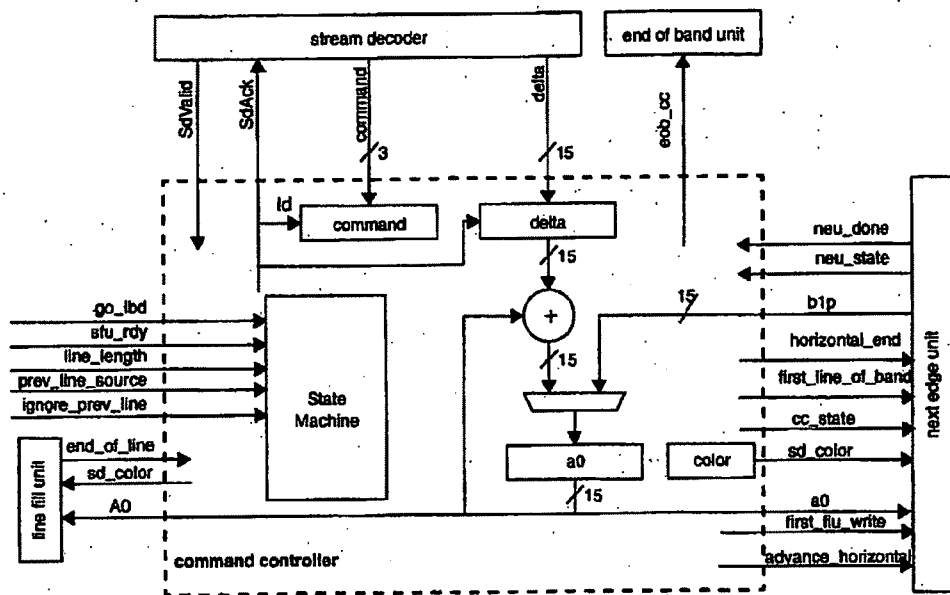


FIG. 163

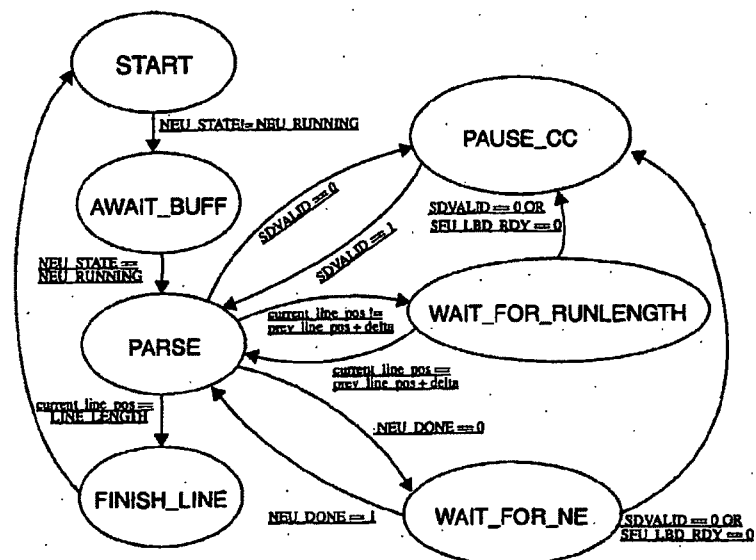


FIG. 164

101/223

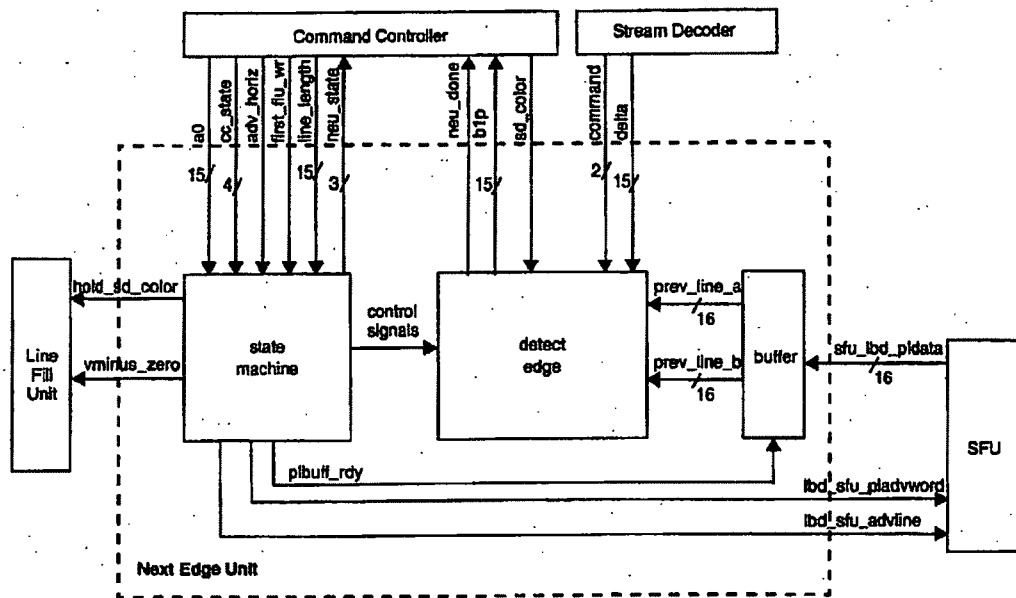


FIG. 165

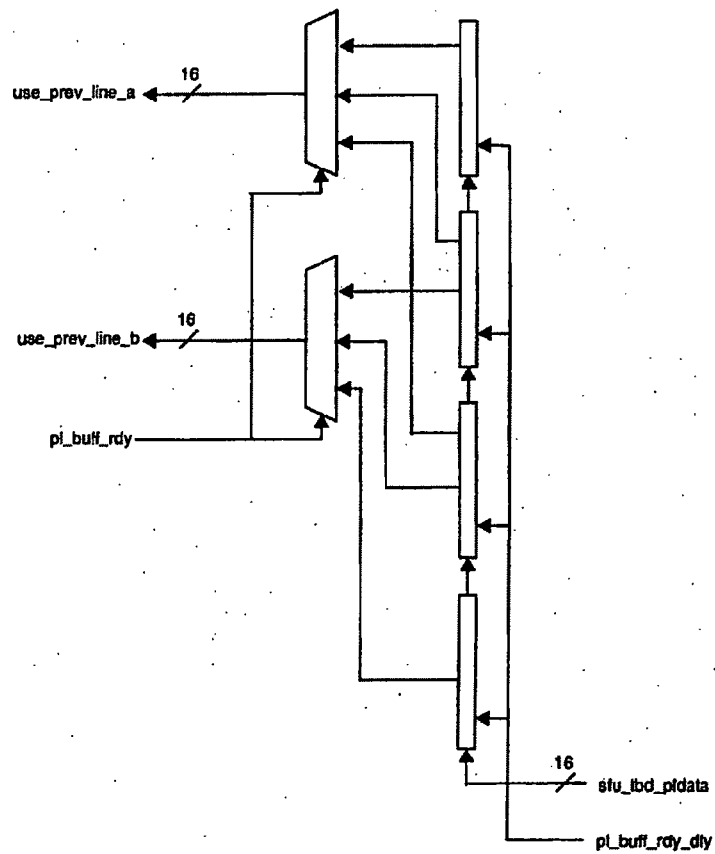


FIG. 166

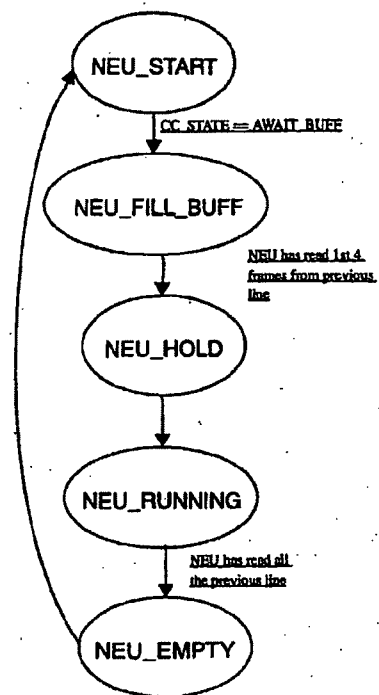


FIG. 168

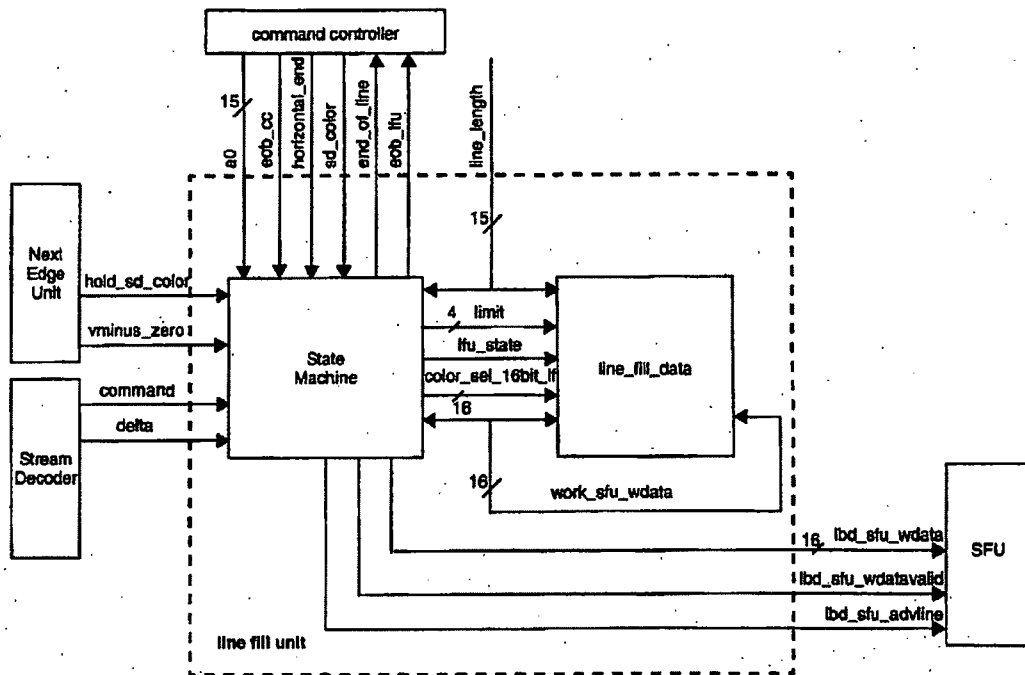


FIG. 169

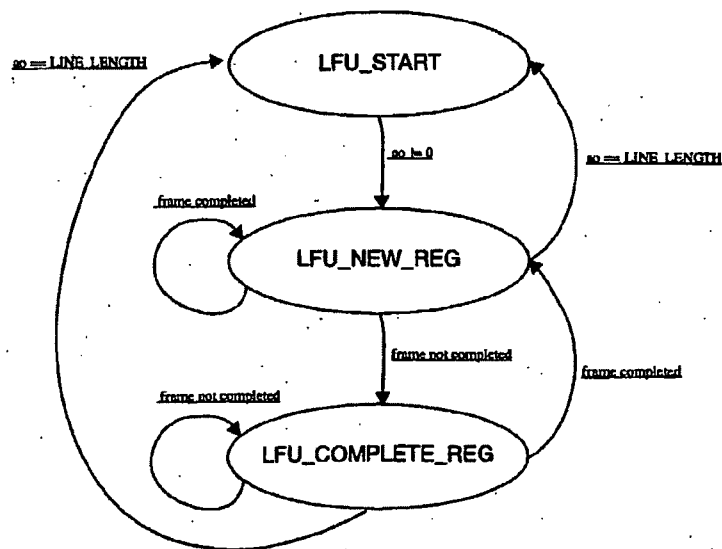


FIG. 170

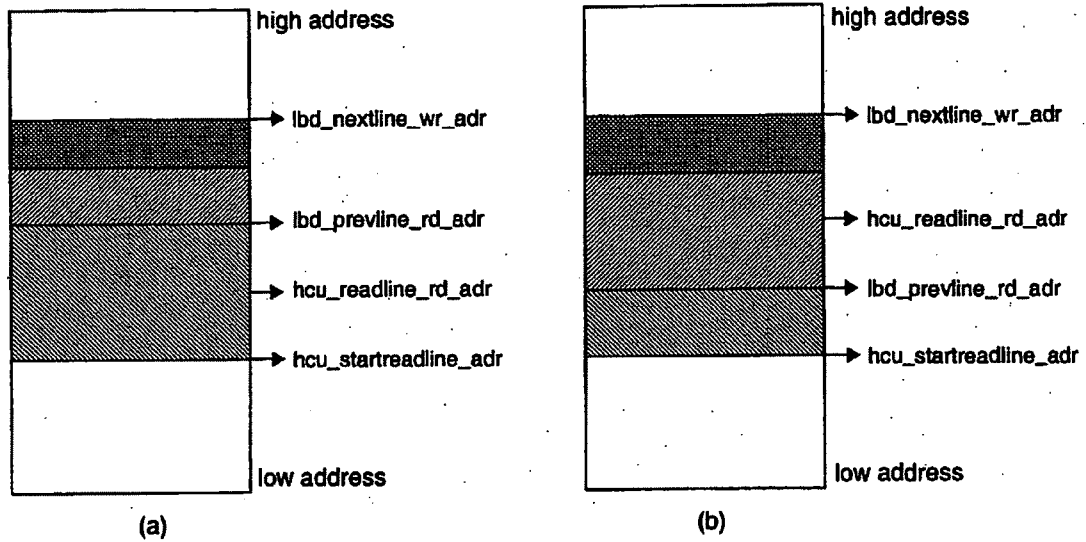


FIG. 171

106/223

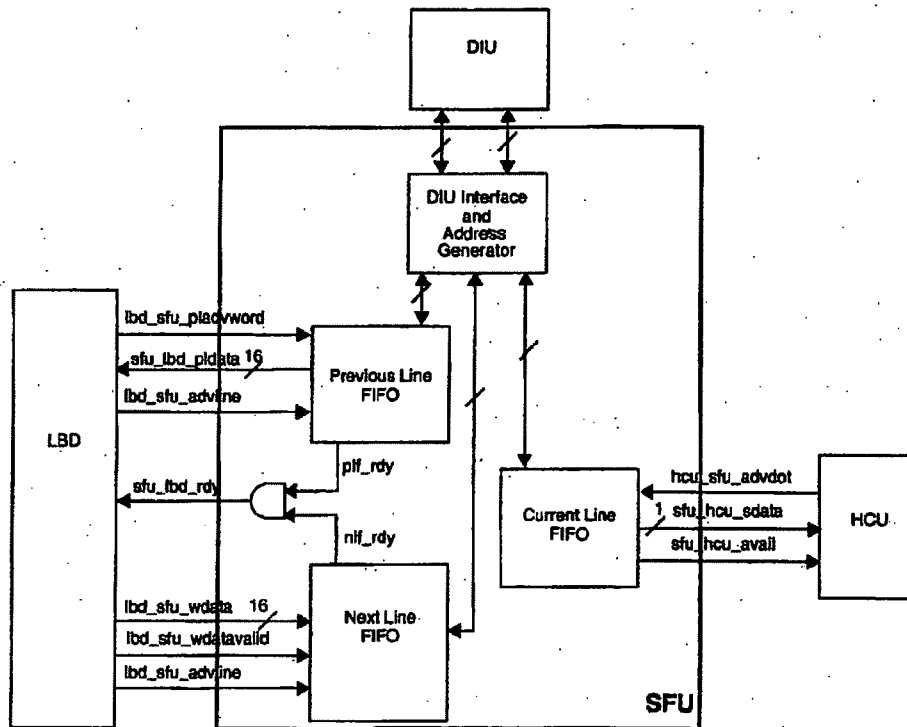


FIG. 172

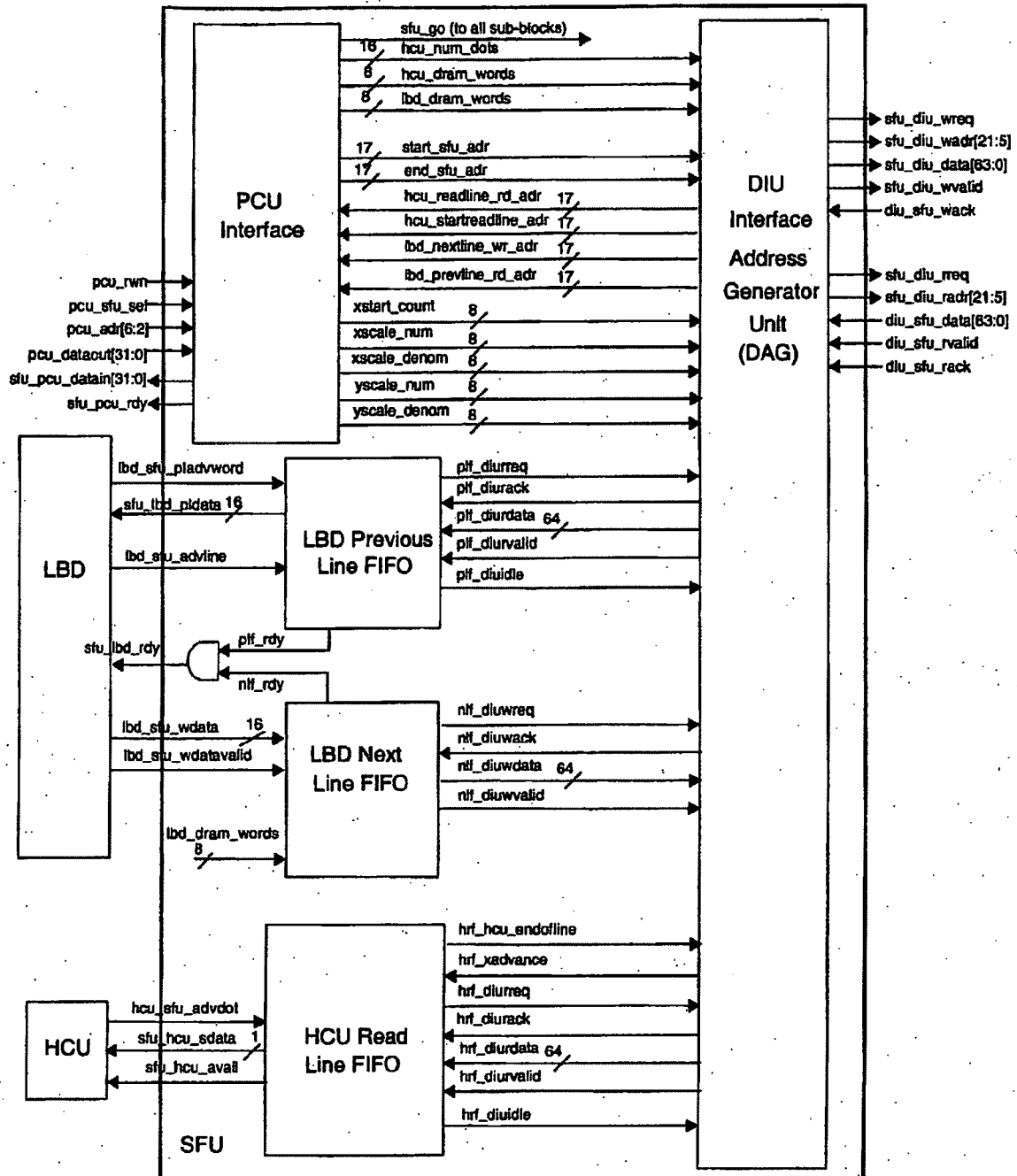


FIG. 173

108/223

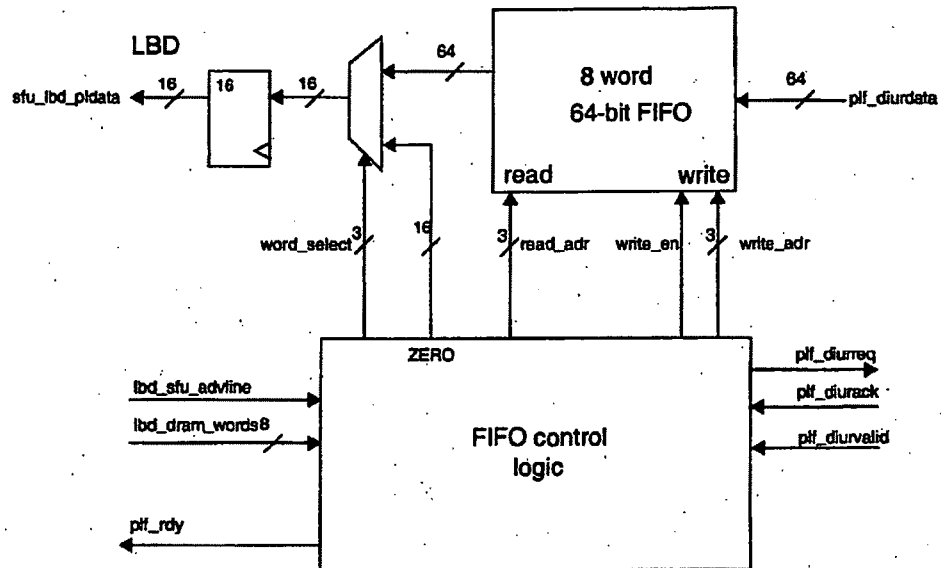


FIG. 174

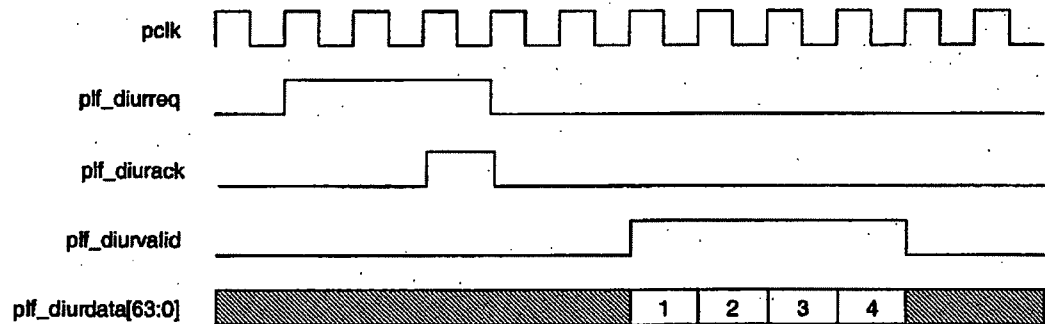


FIG. 175

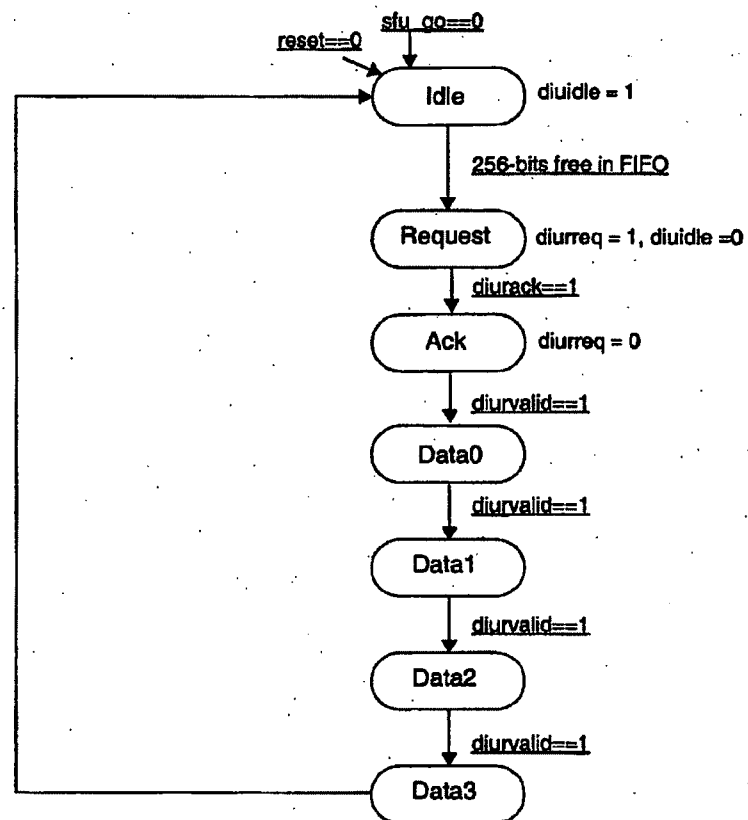


FIG. 176

110/223

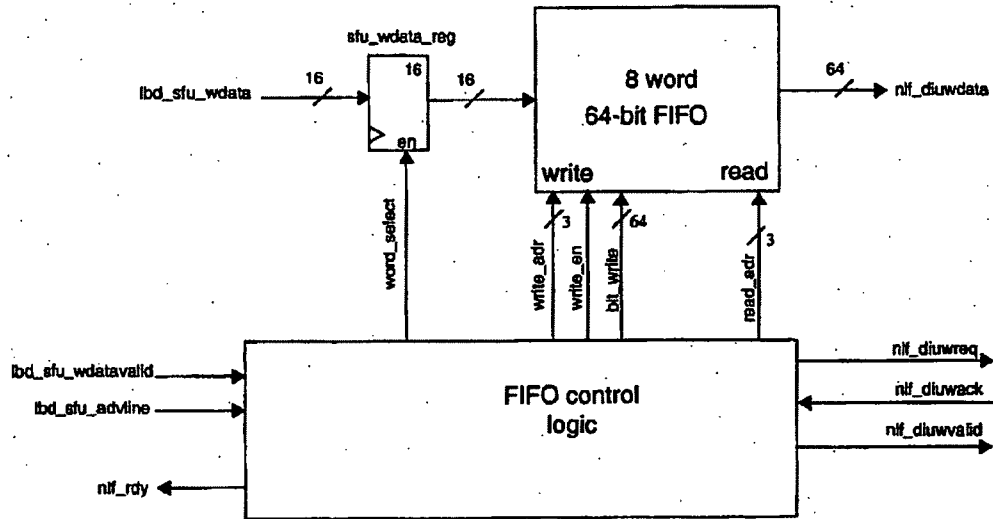


FIG. 177

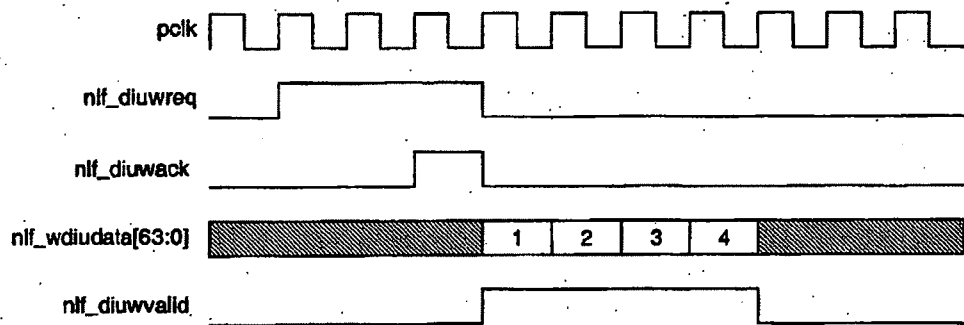


FIG. 178

111/223

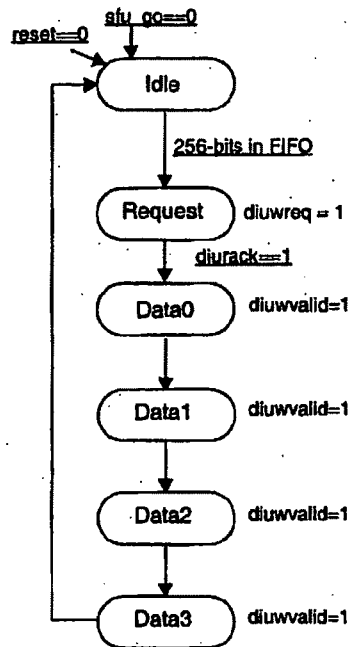


FIG. 179

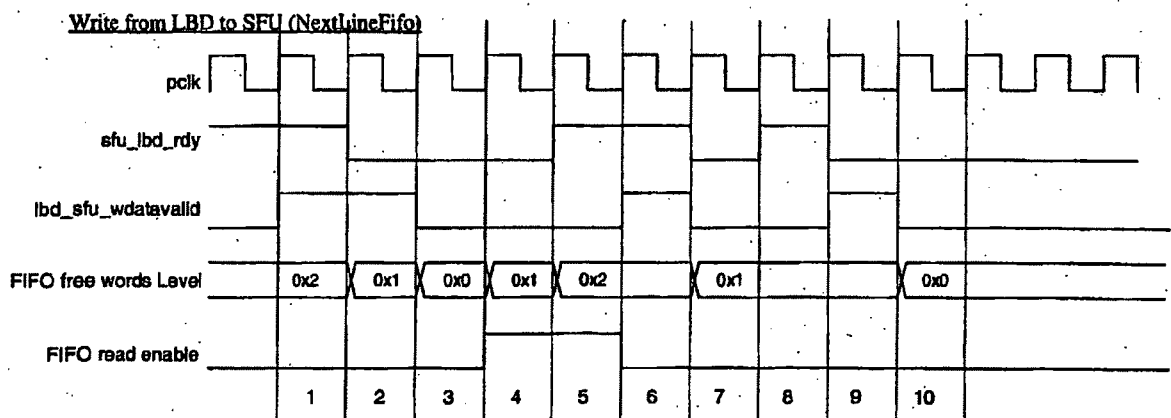


FIG. 180

112/223

Read from SFU to LBD (Previous Line Fifo)

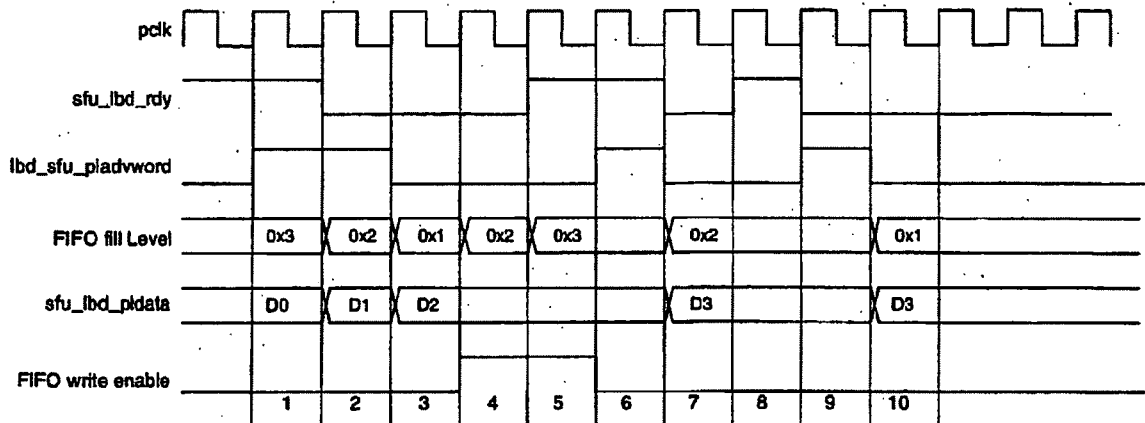


FIG. 181

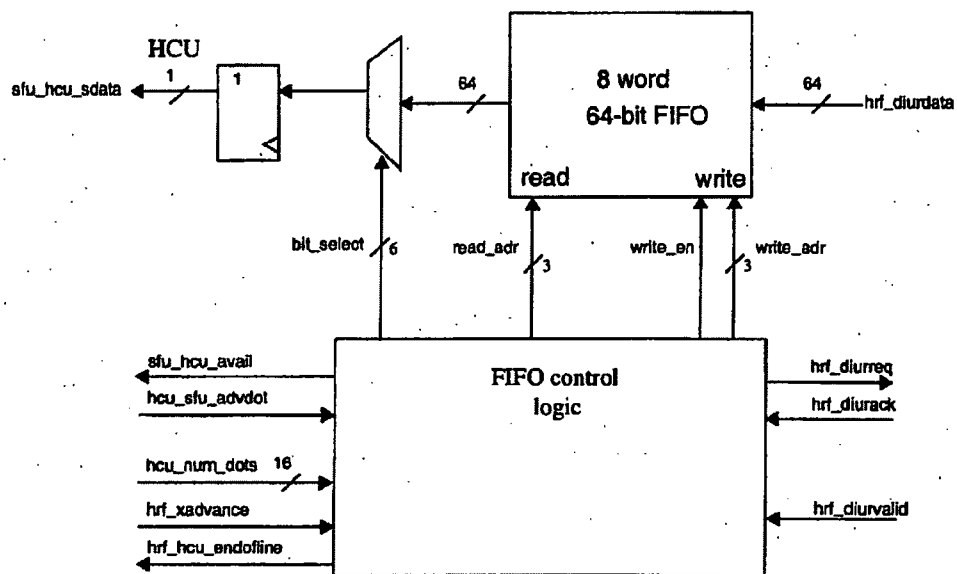


FIG. 182

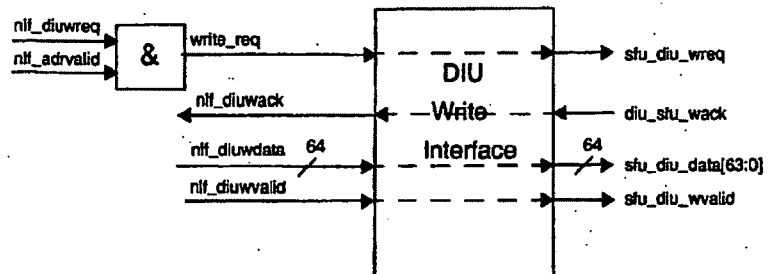


FIG. 183

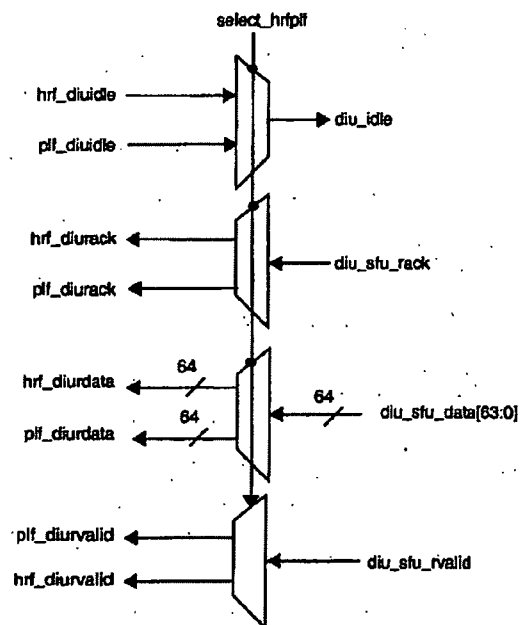


FIG. 184

114/223

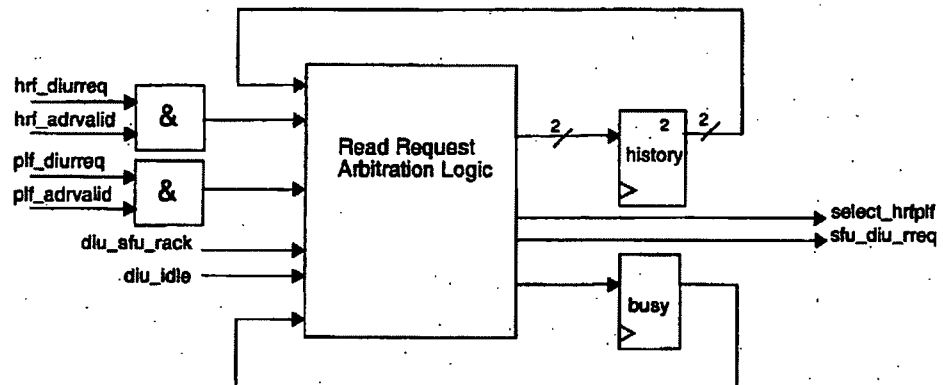


FIG. 185

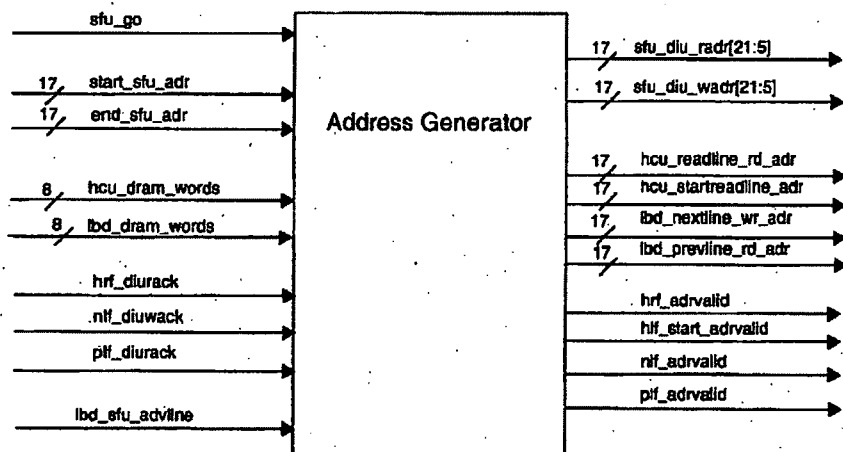


FIG. 186

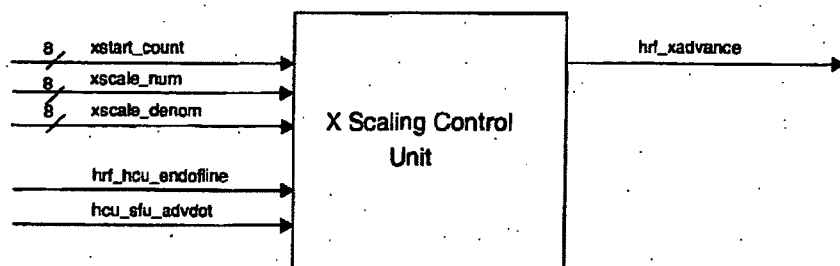


FIG. 187

115/223

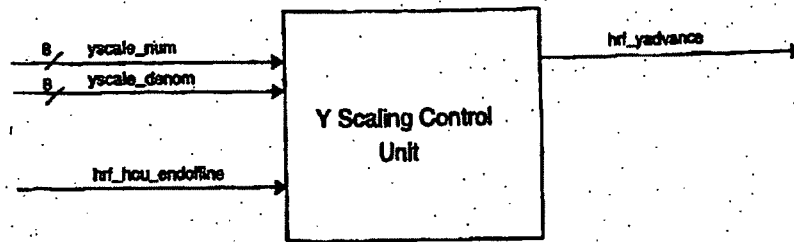


FIG. 188

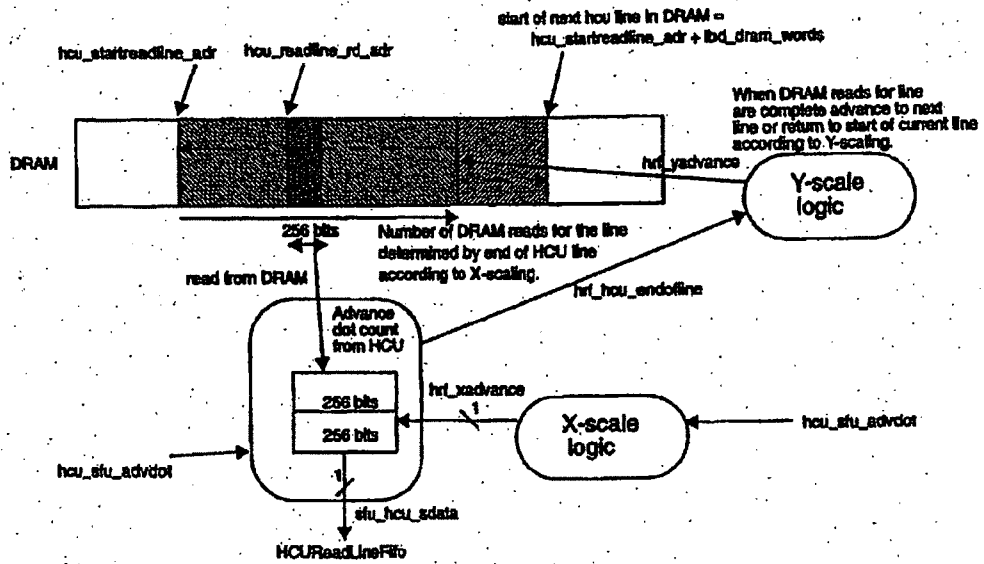


FIG. 189

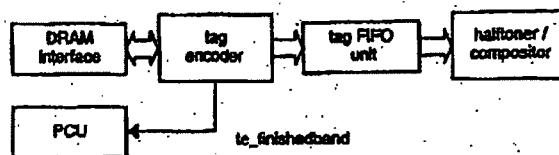


FIG. 190

116/223

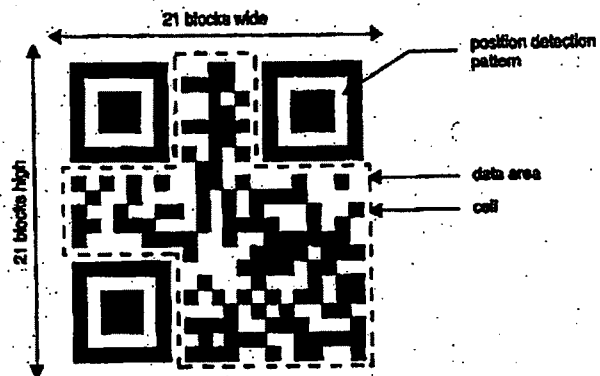


FIG. 191

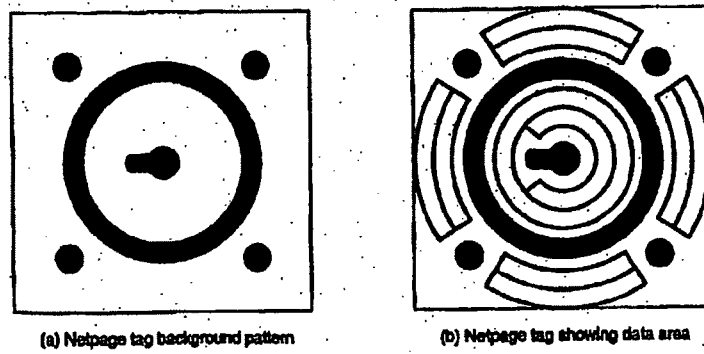


FIG. 192

117/223

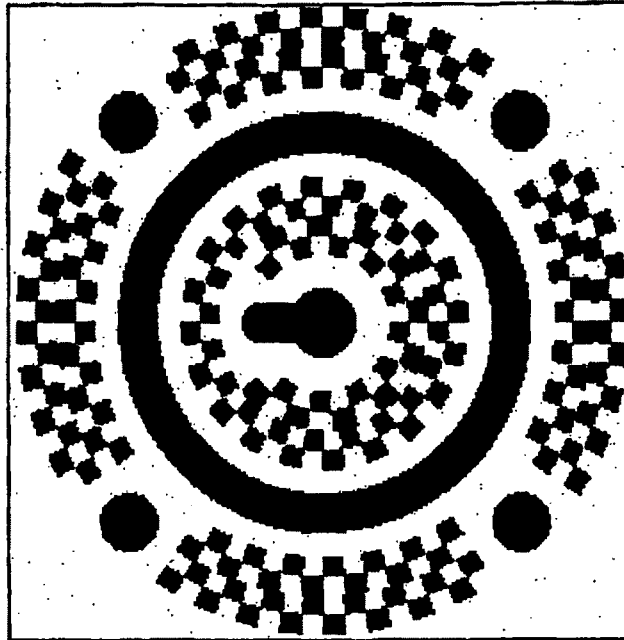


FIG. 193

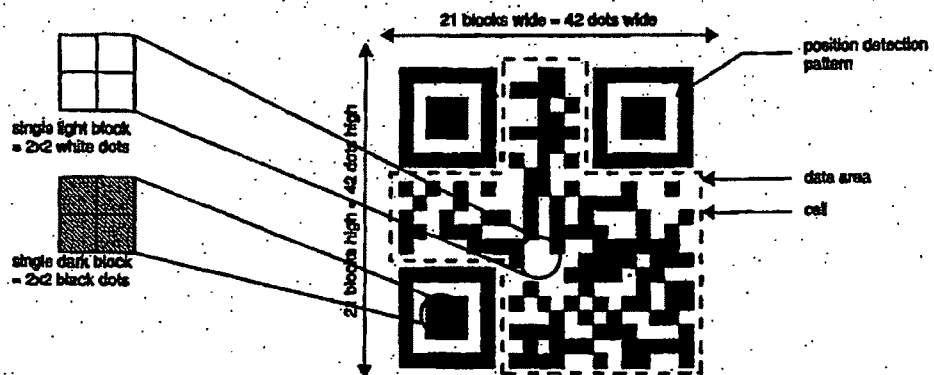


FIG. 194

118/223

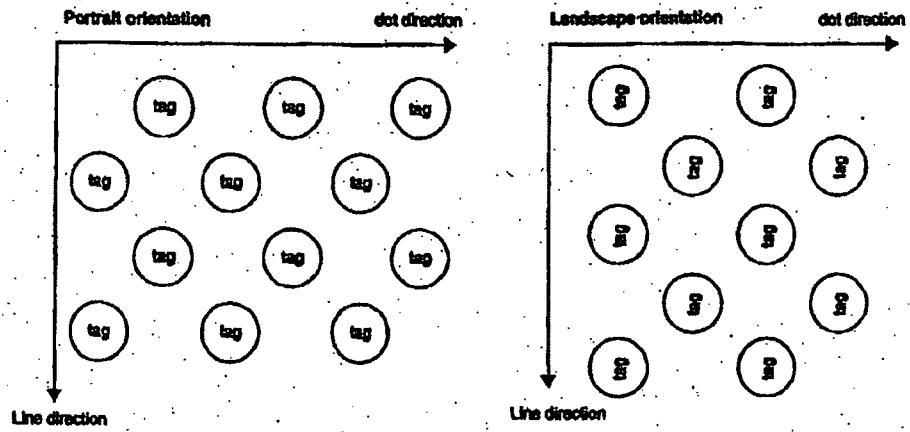


FIG. 195

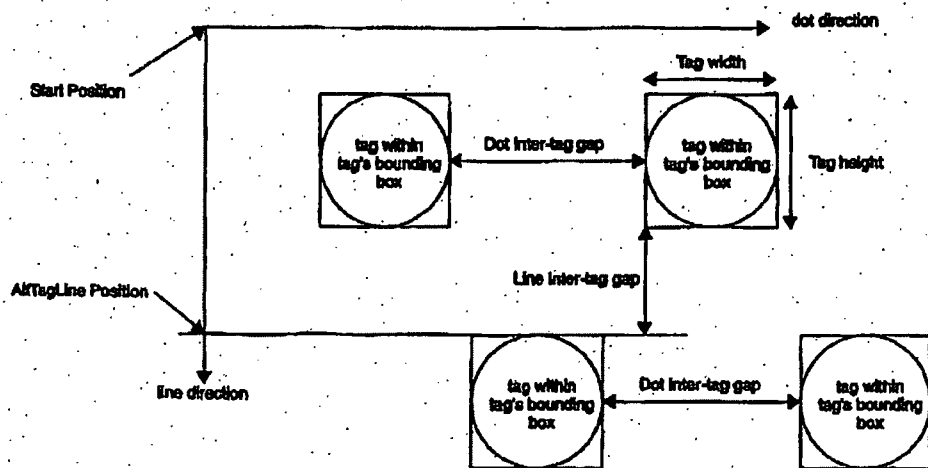


FIG. 196

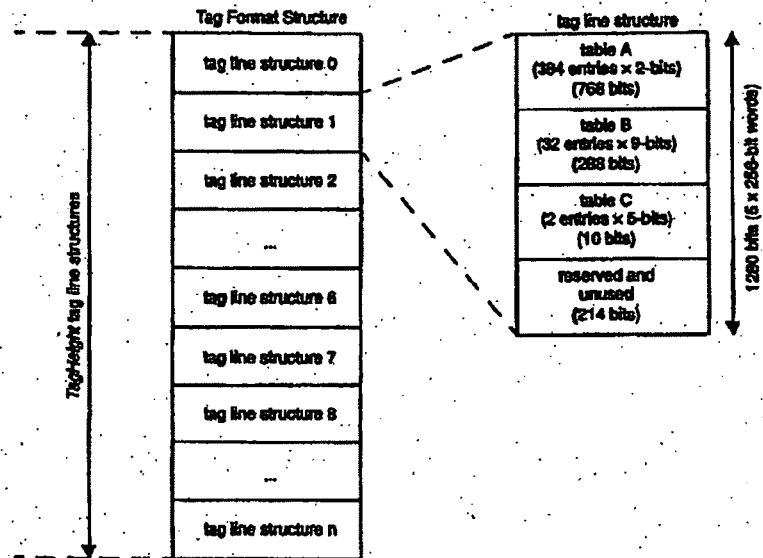


FIG. 197

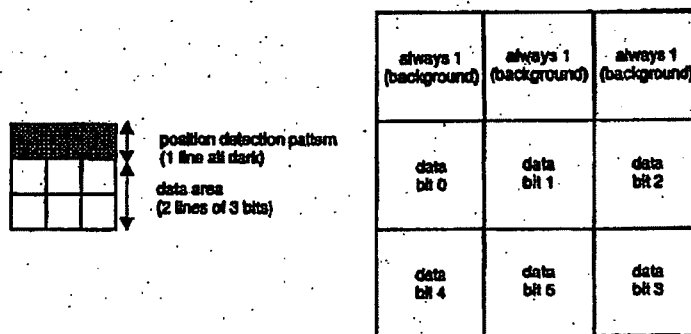


FIG. 198

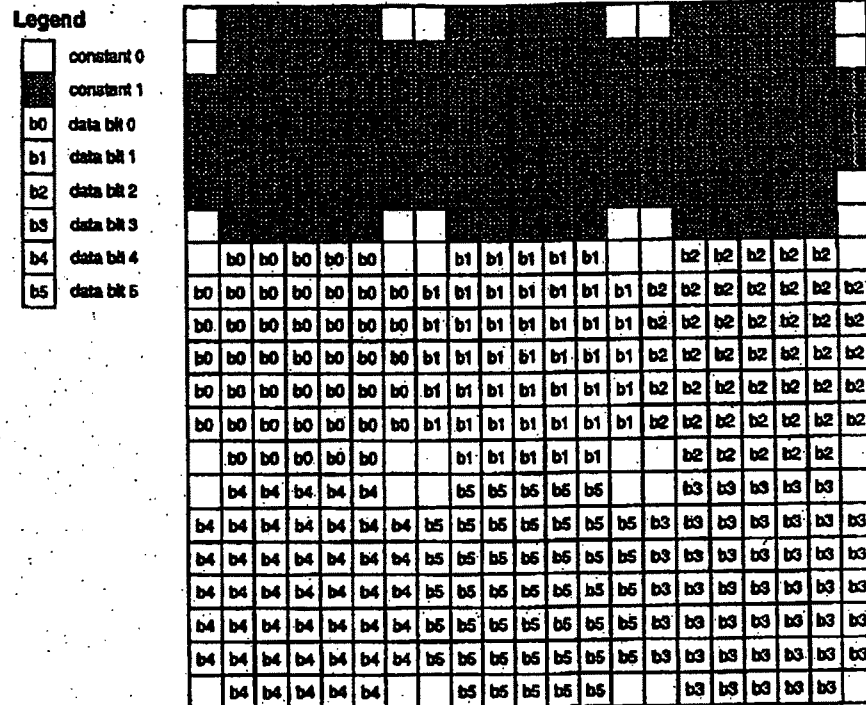


FIG. 199

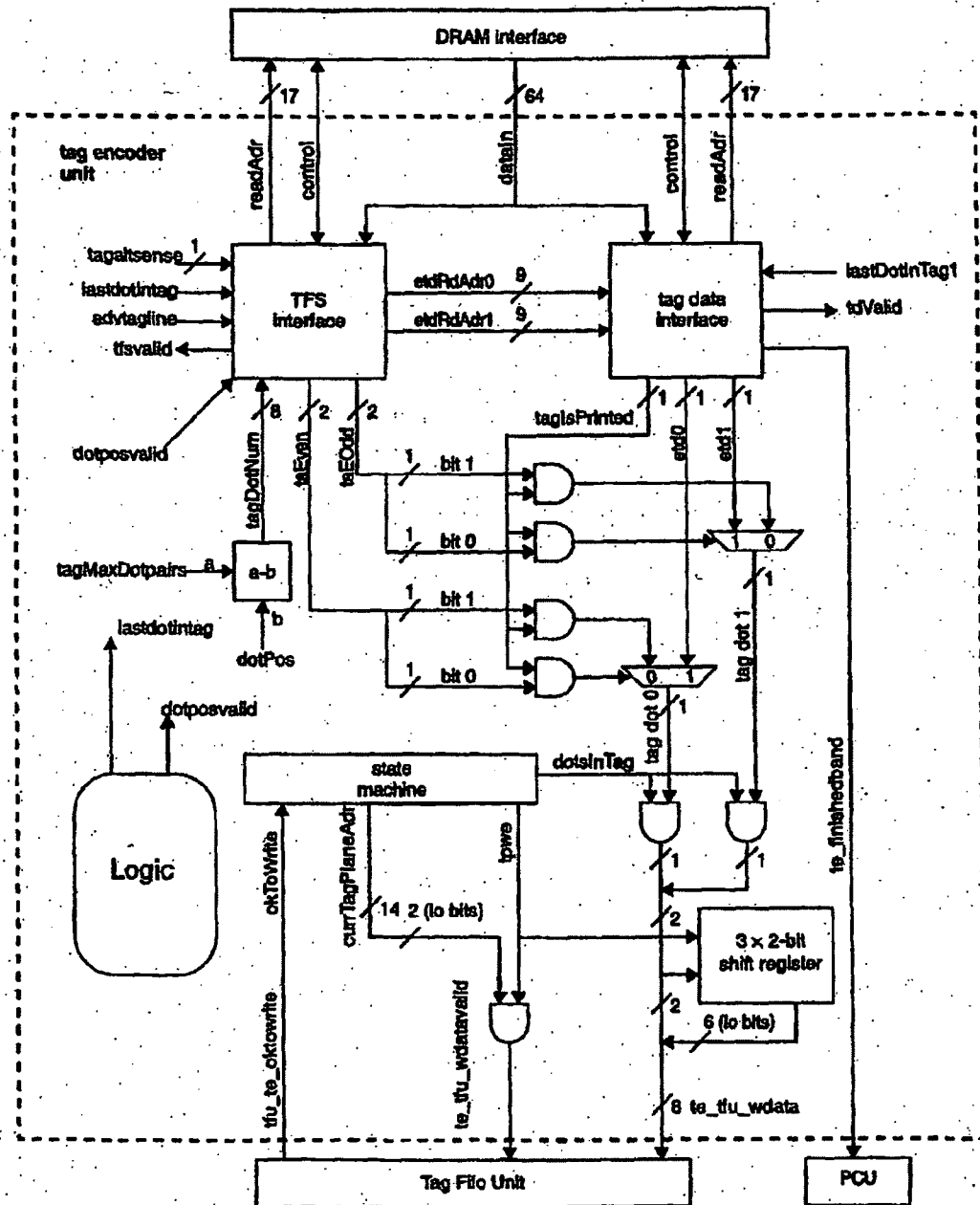


FIG. 200

122/223

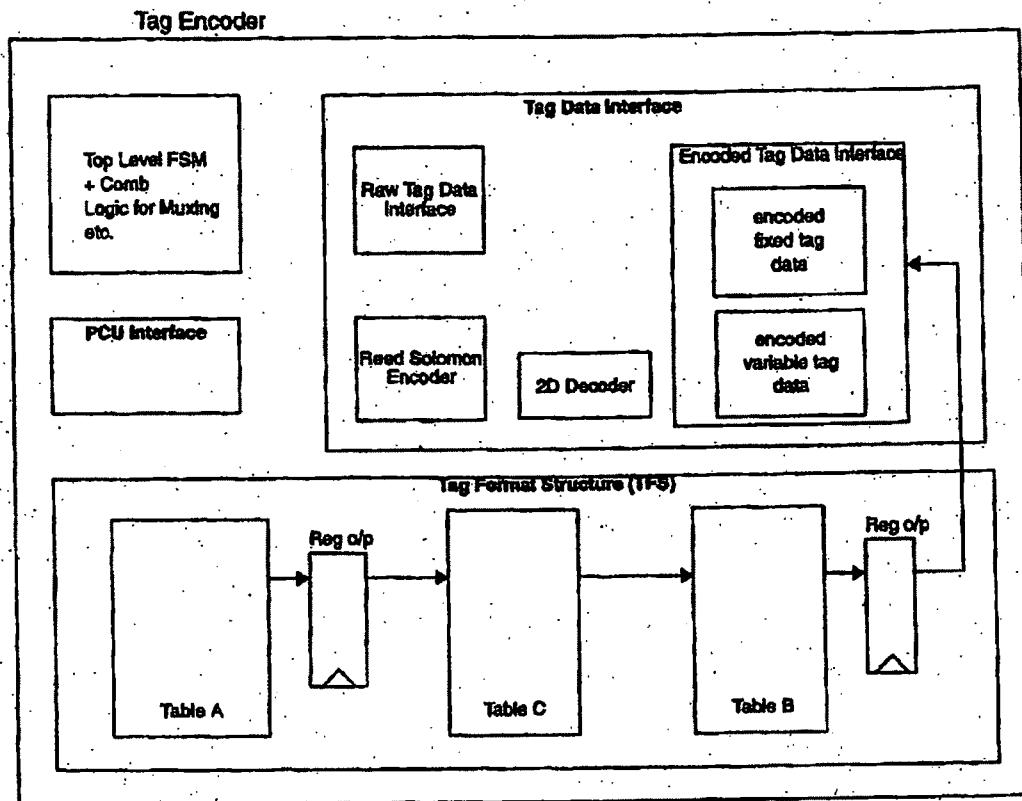


FIG. 201

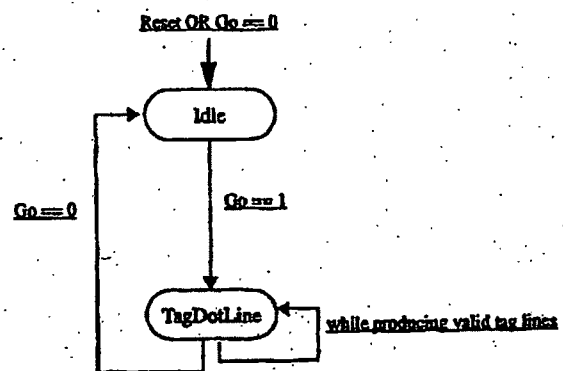


FIG. 202

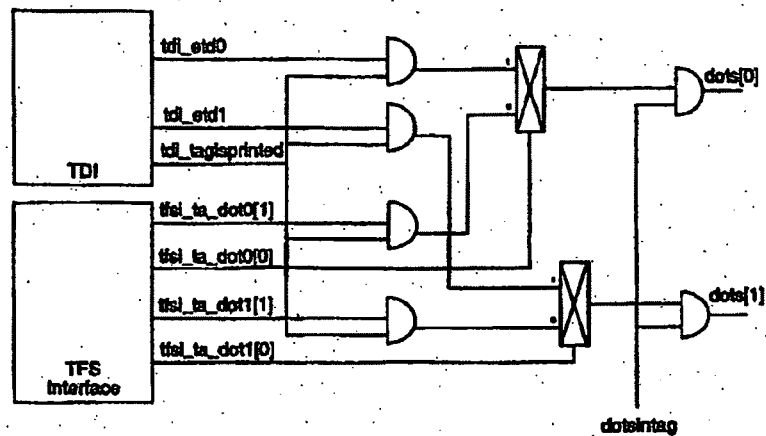


FIG. 203

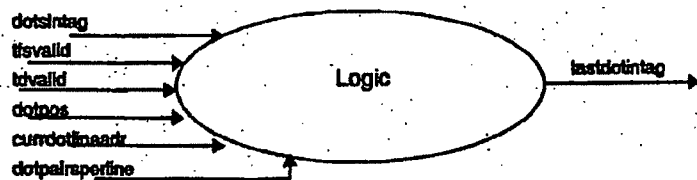


FIG. 204

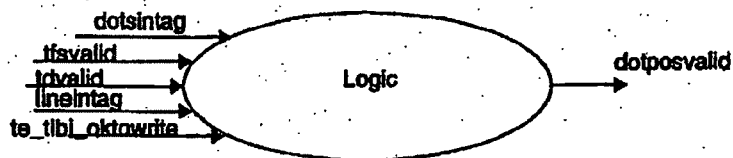


FIG. 205

124/223

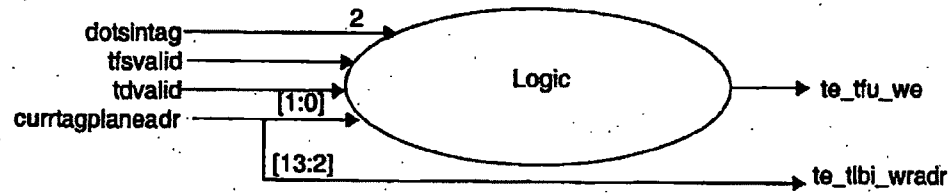


FIG. 206

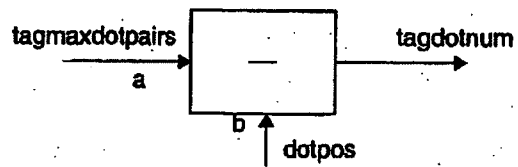


FIG. 207

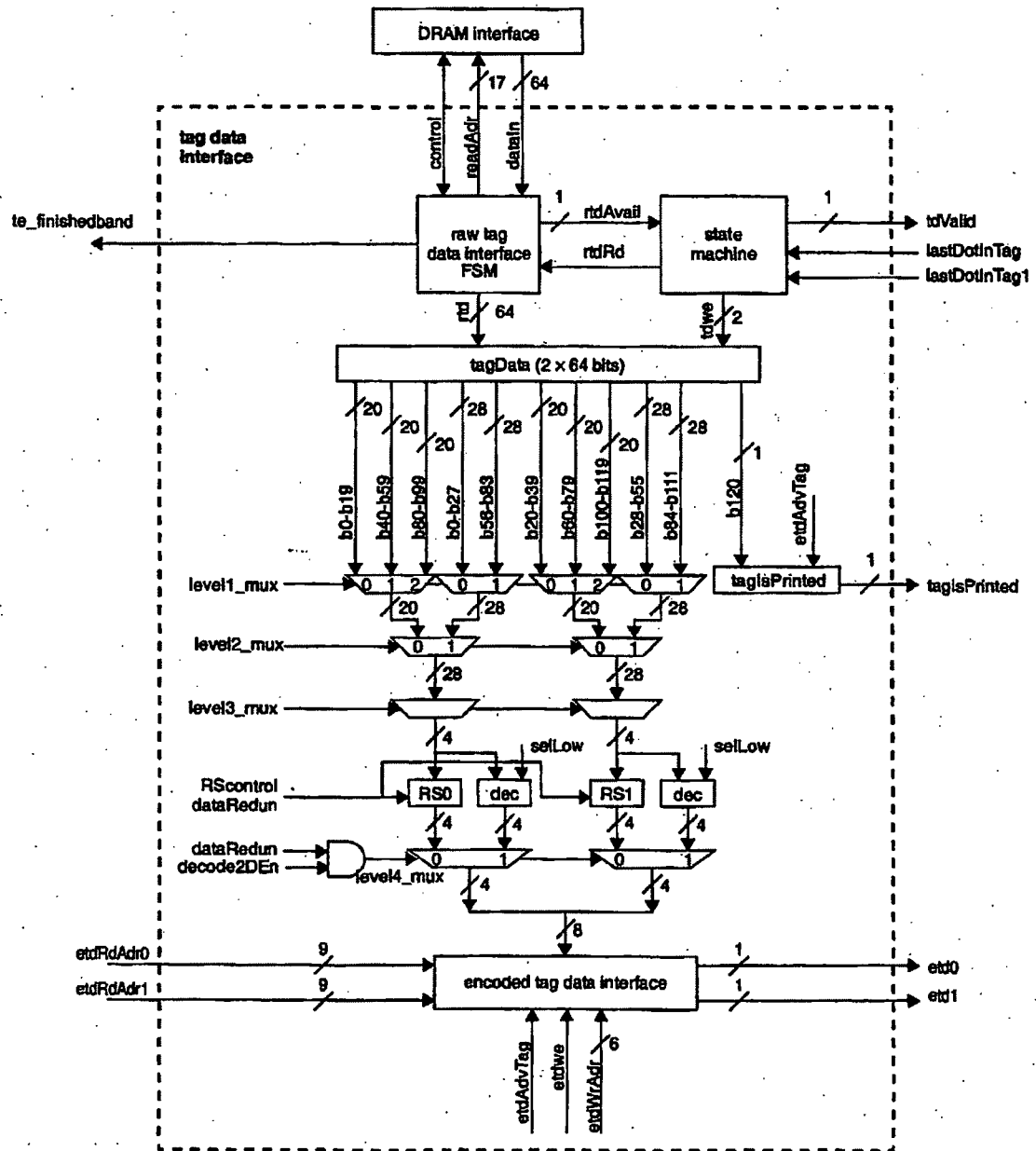


FIG. 208

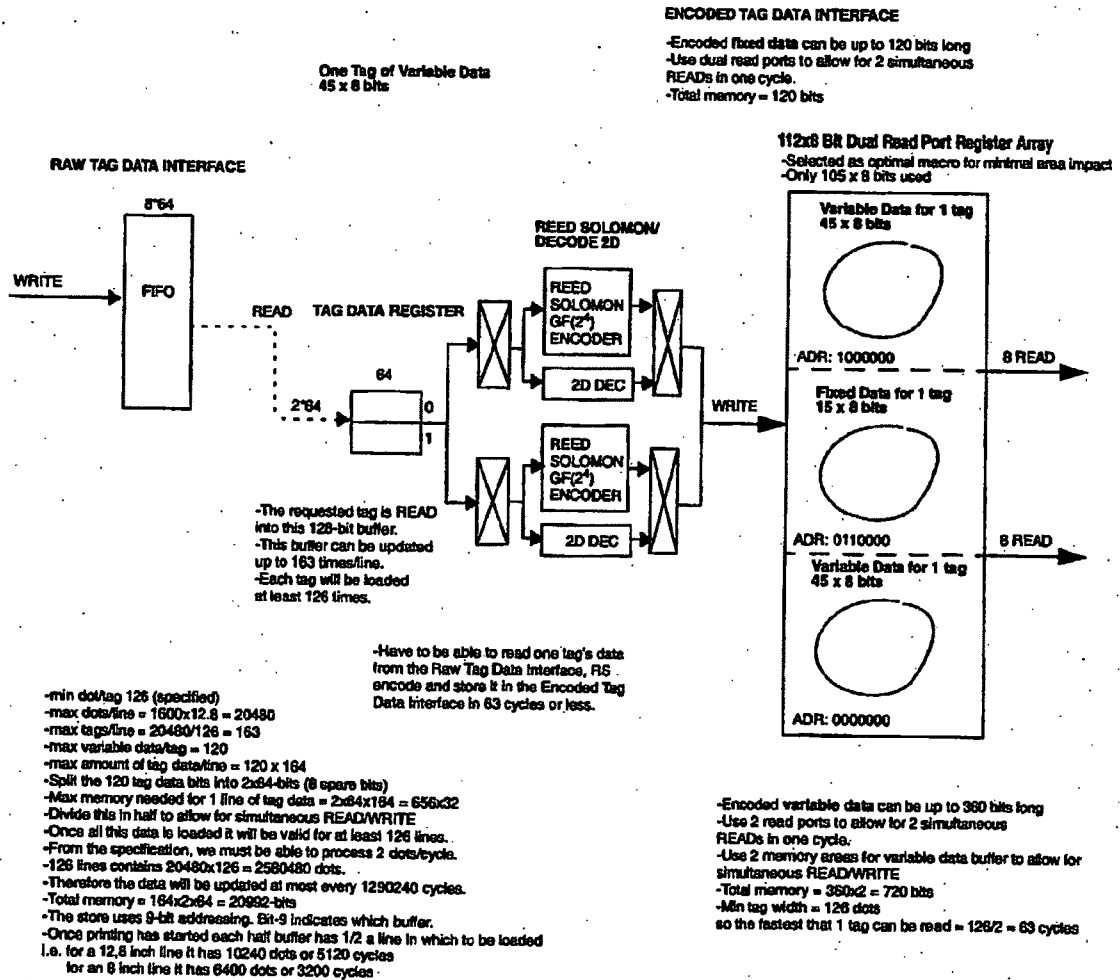


FIG. 209

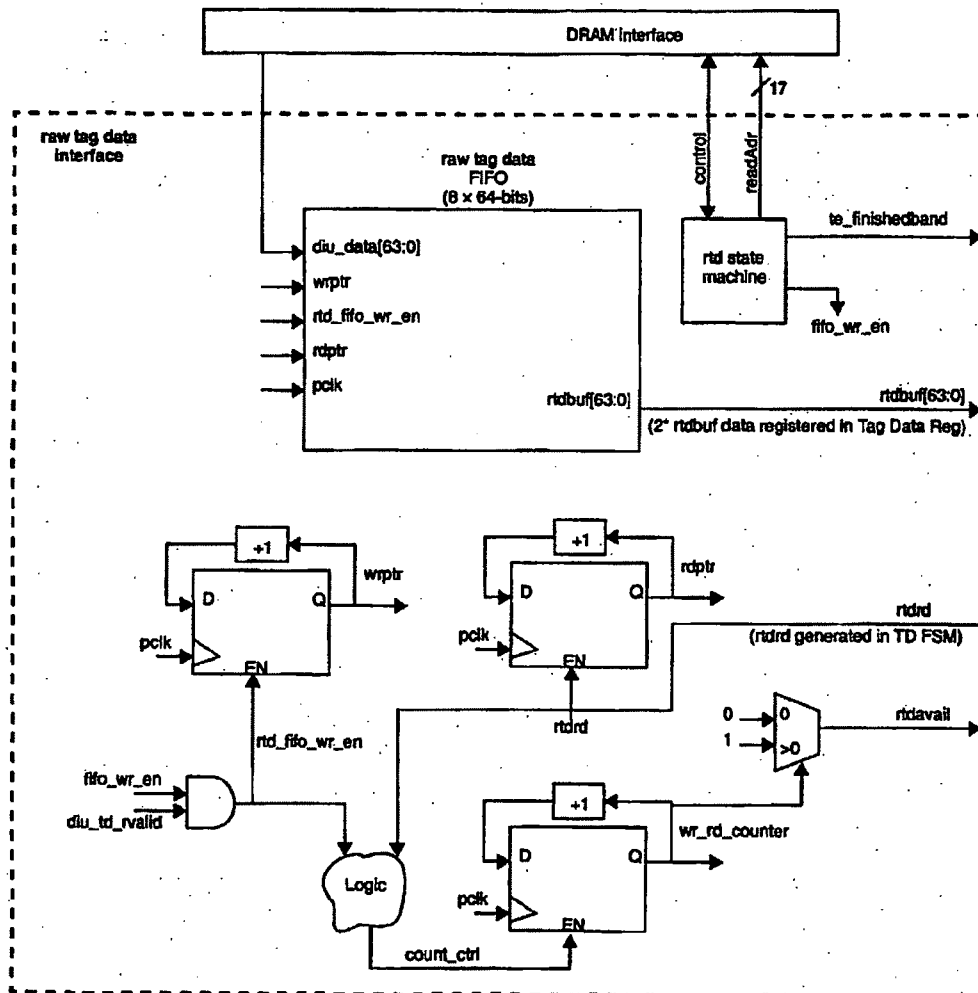


FIG. 210

128/223

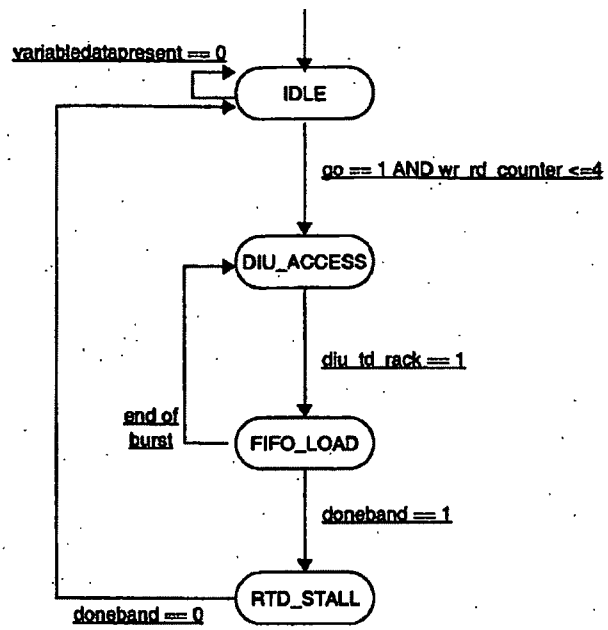


FIG. 211

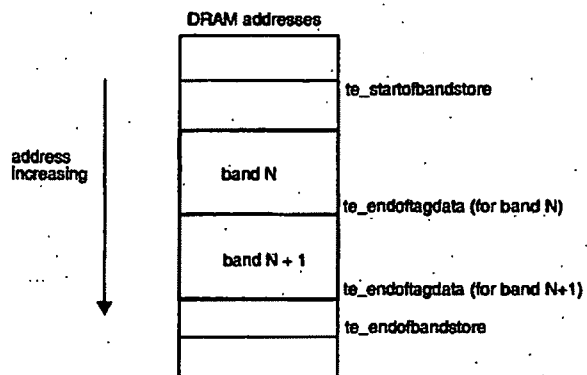


FIG. 212

129/223

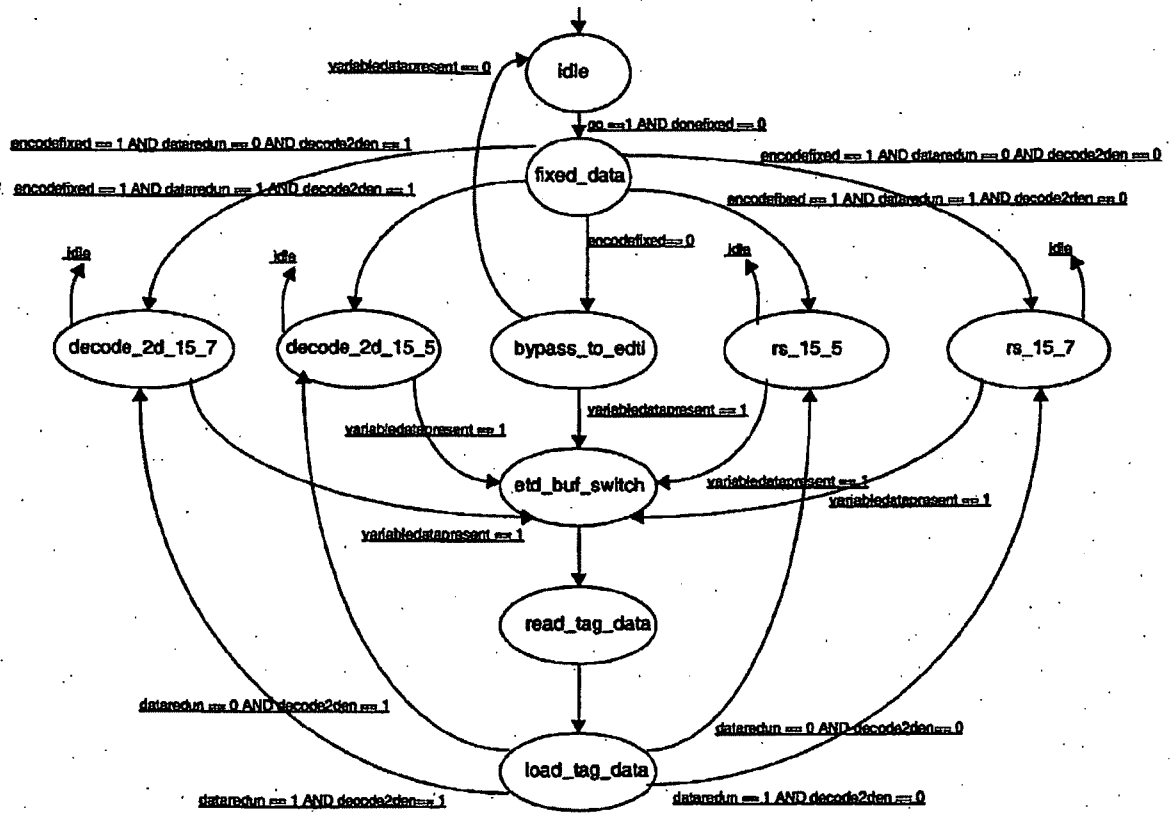


FIG. 213

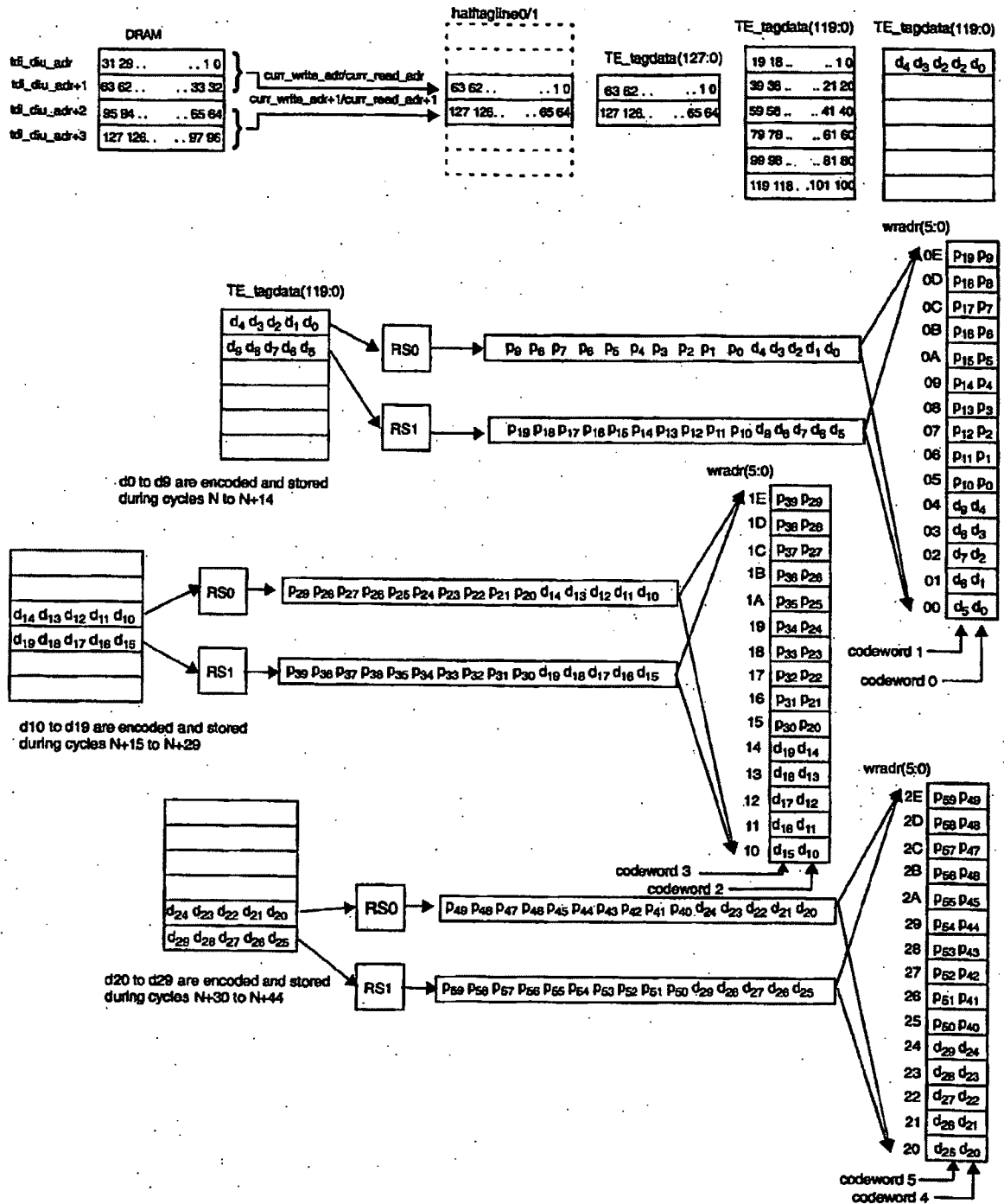


FIG. 214

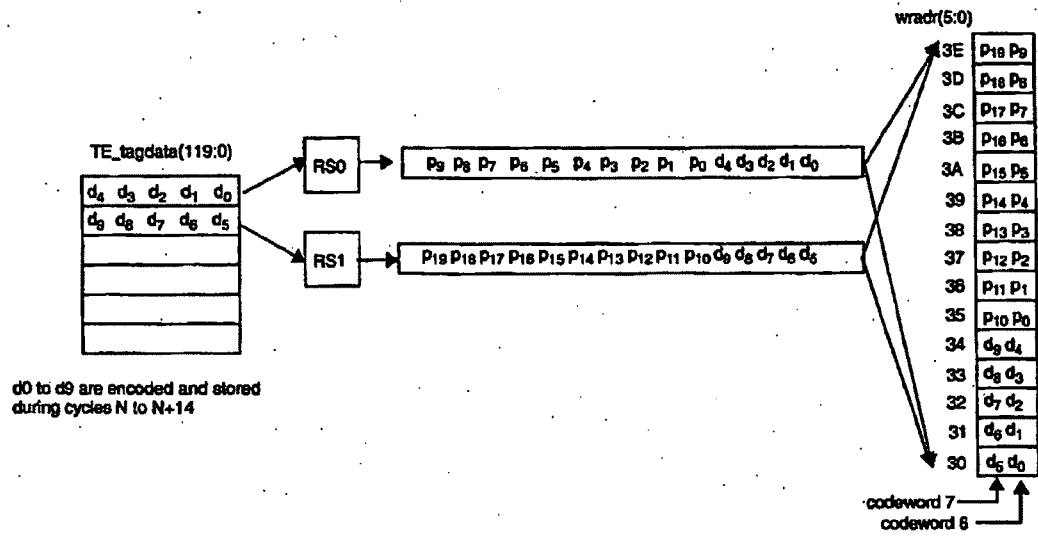


FIG. 215

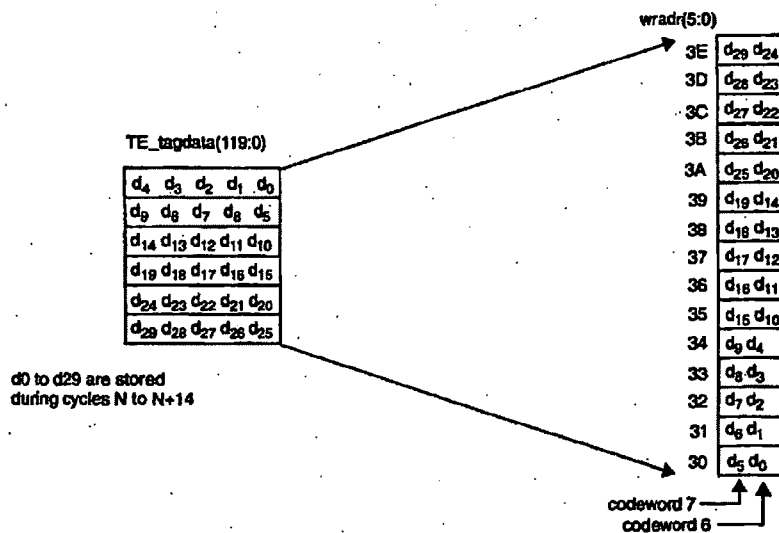


FIG. 216

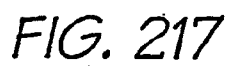


FIG. 217

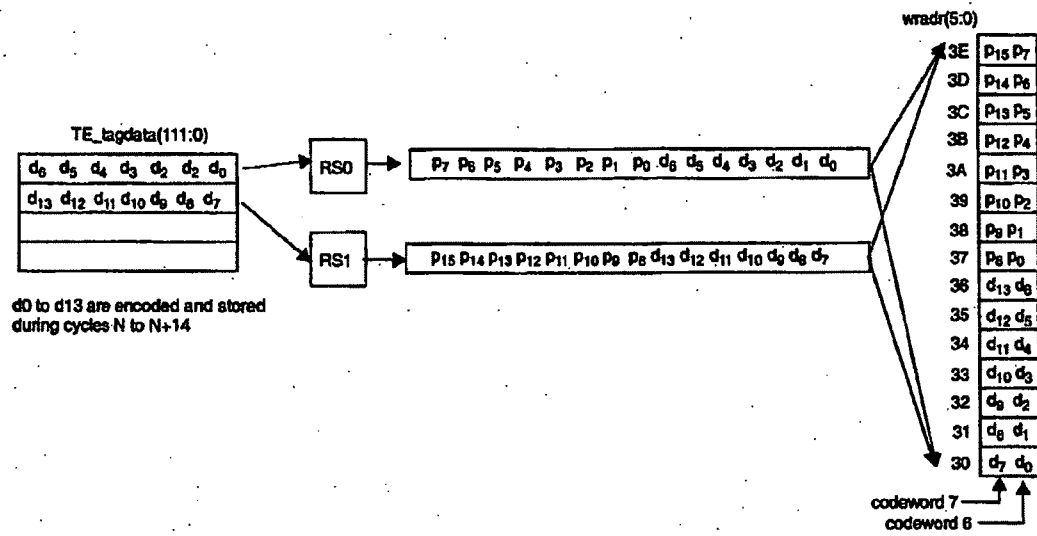


FIG. 218

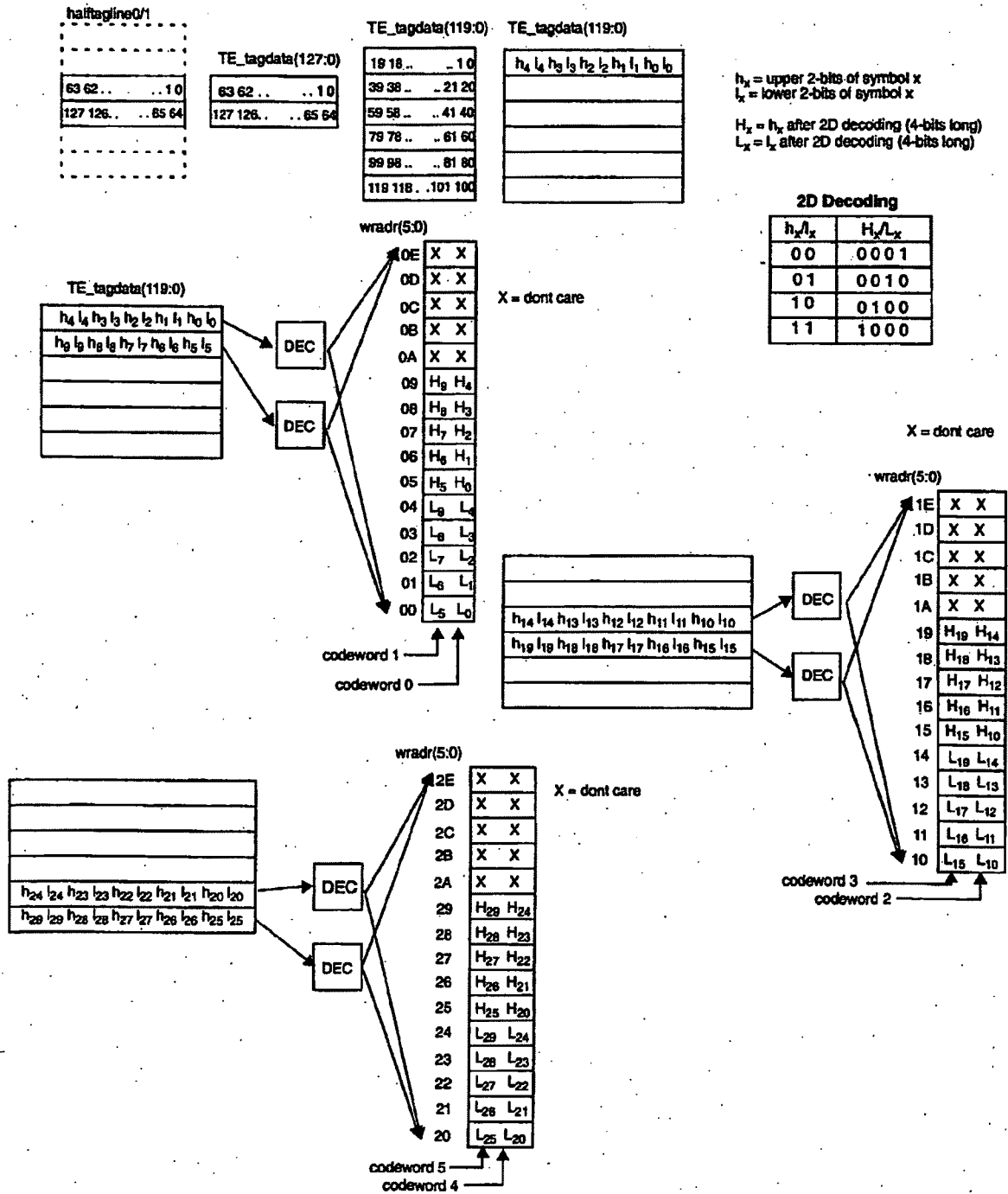


FIG. 219

135/223

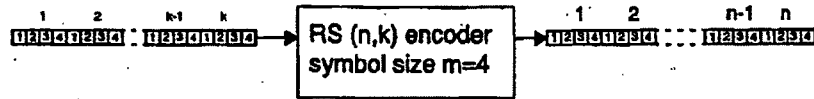


FIG. 220

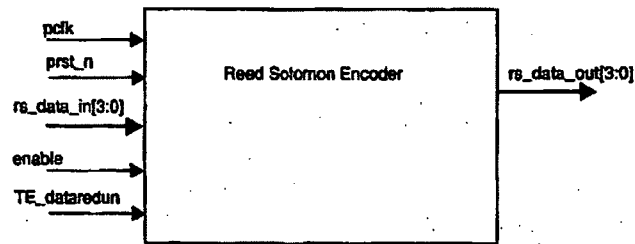


FIG. 221

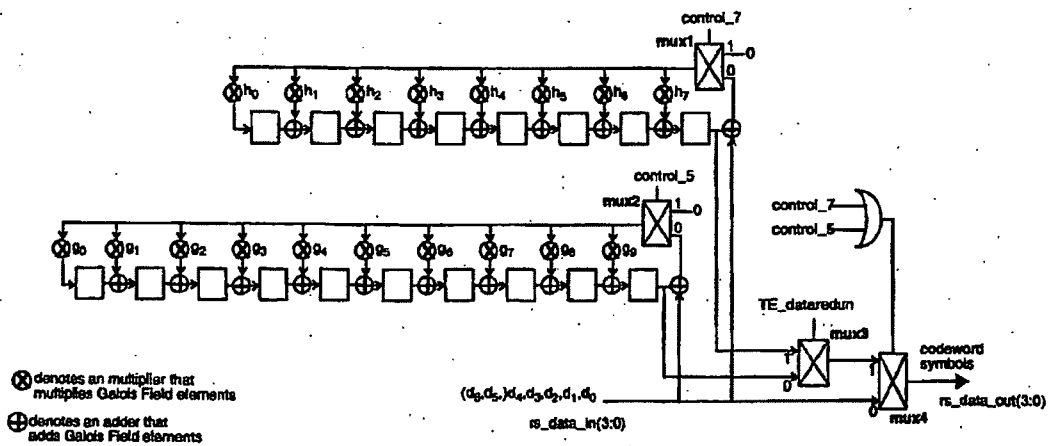


FIG. 222

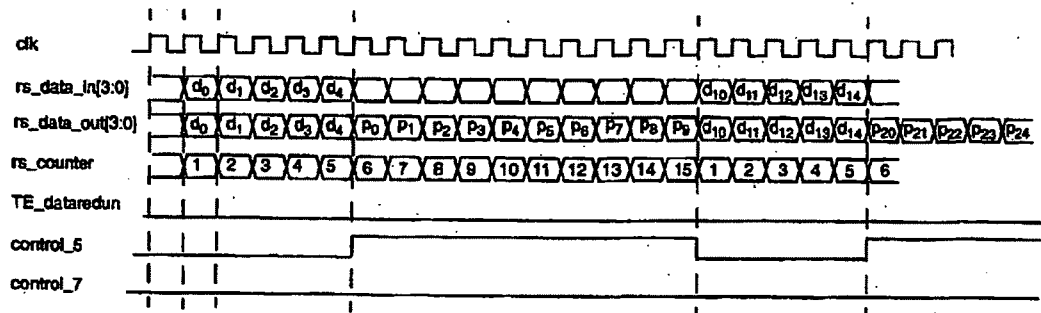


FIG. 223

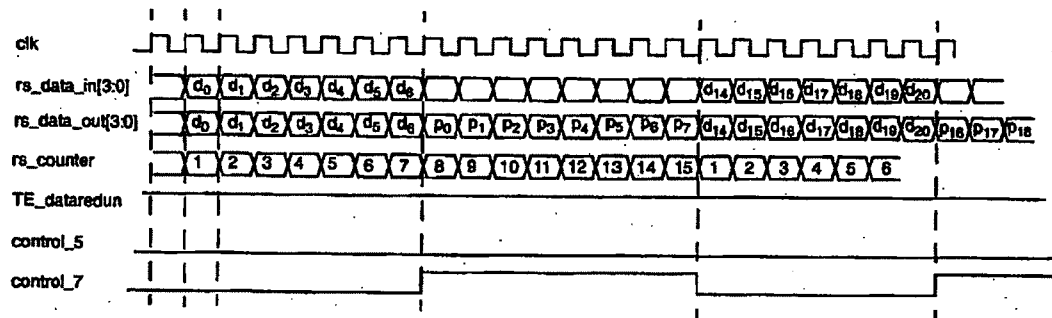


FIG. 224

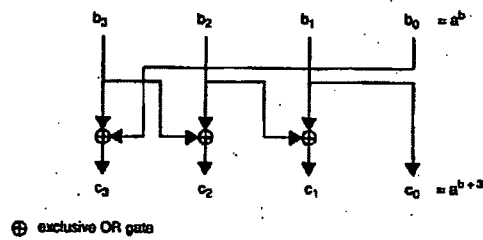


FIG. 225

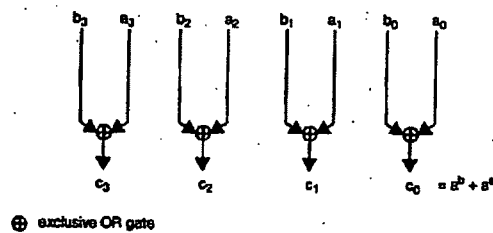


FIG. 226

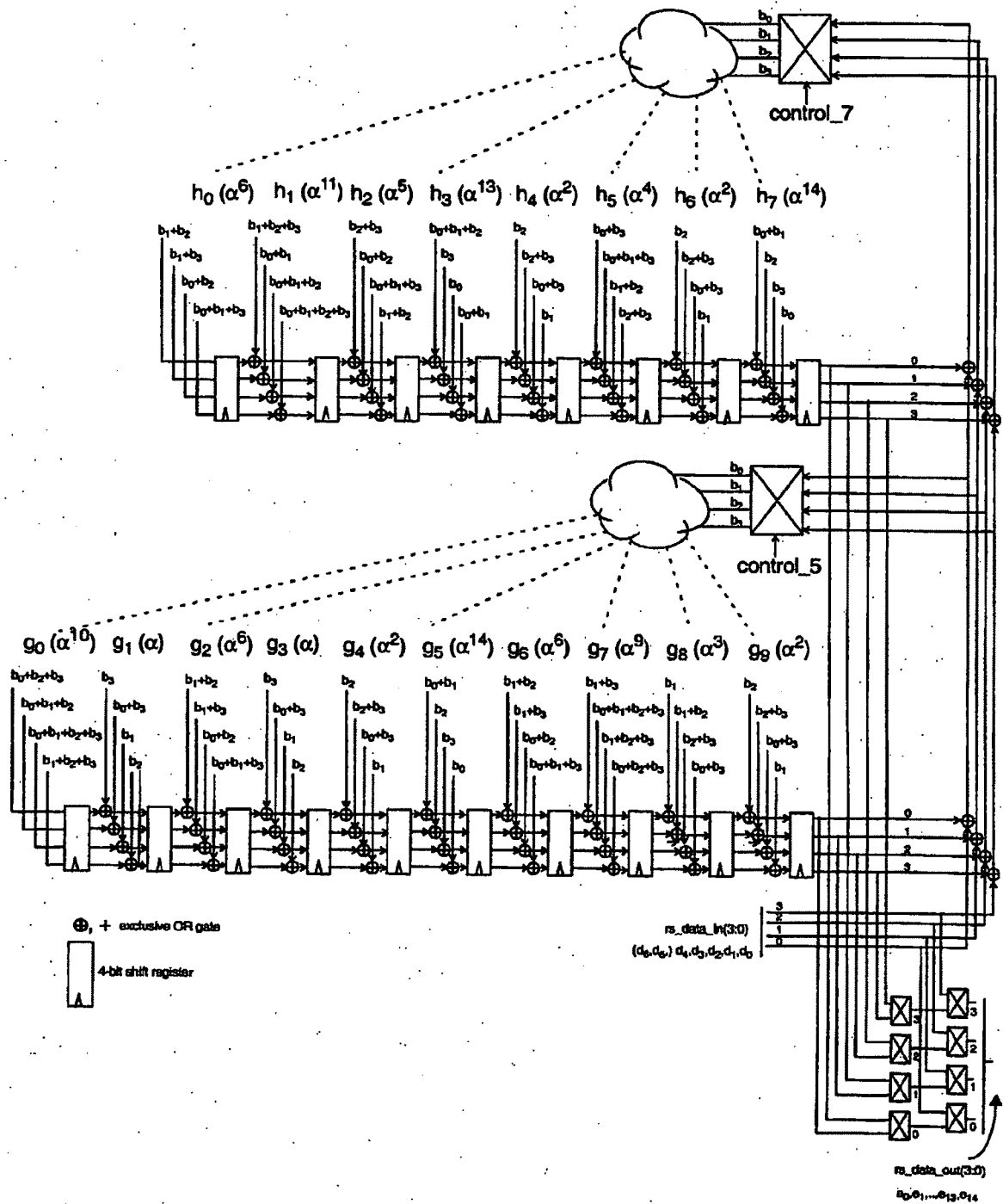


FIG. 227

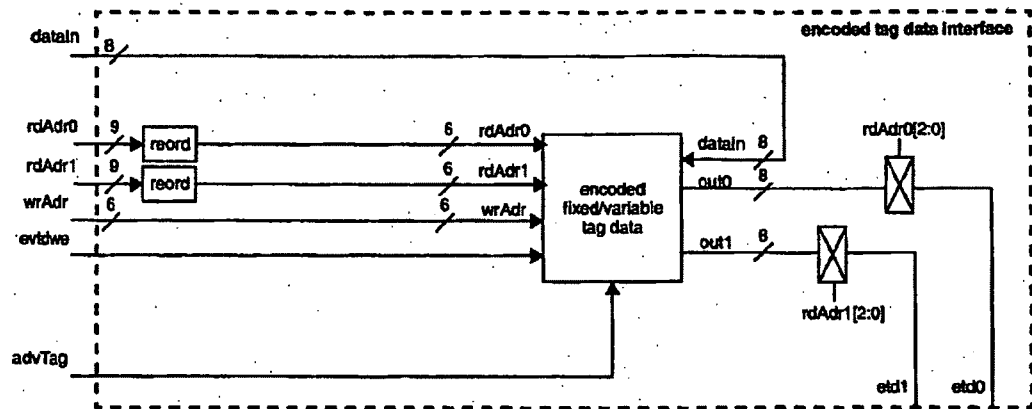


FIG. 228

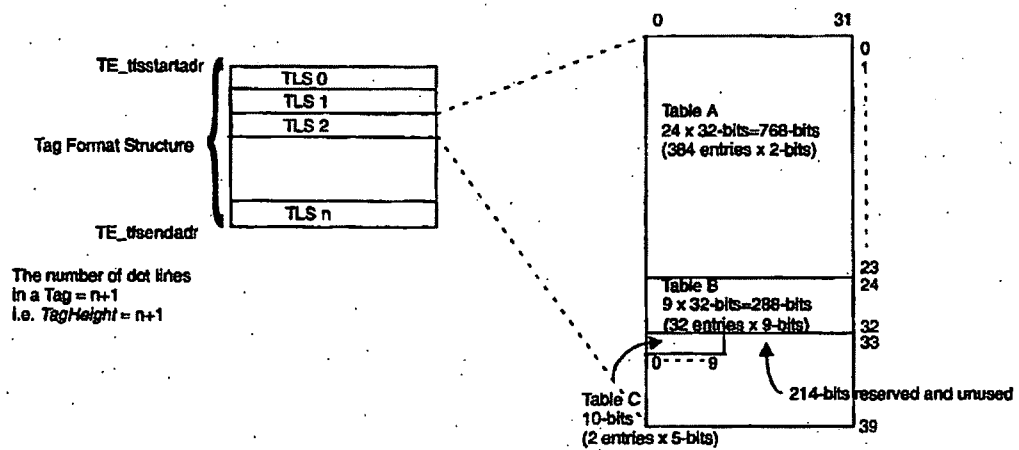


FIG. 229

139/223

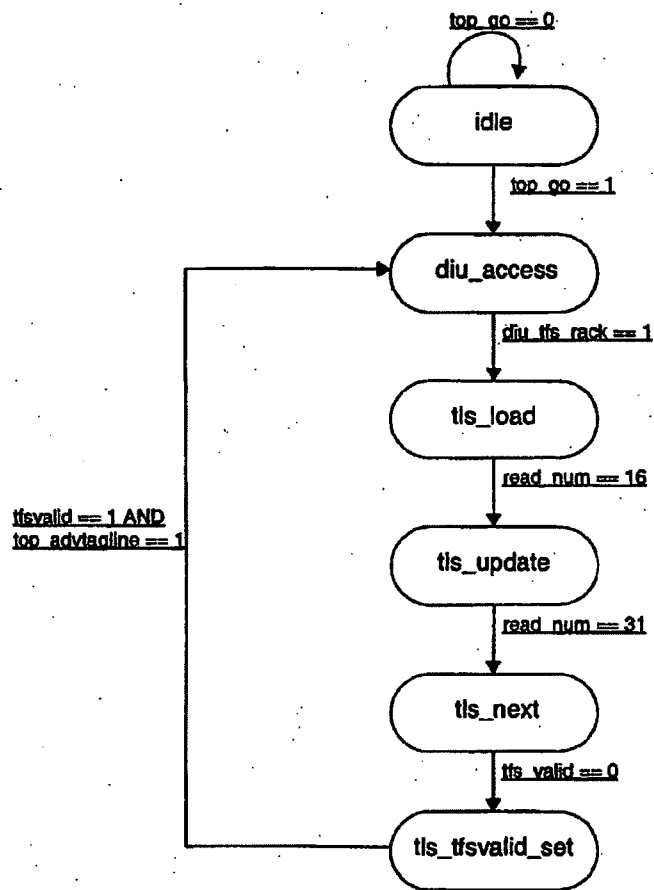


FIG. 230

140/223

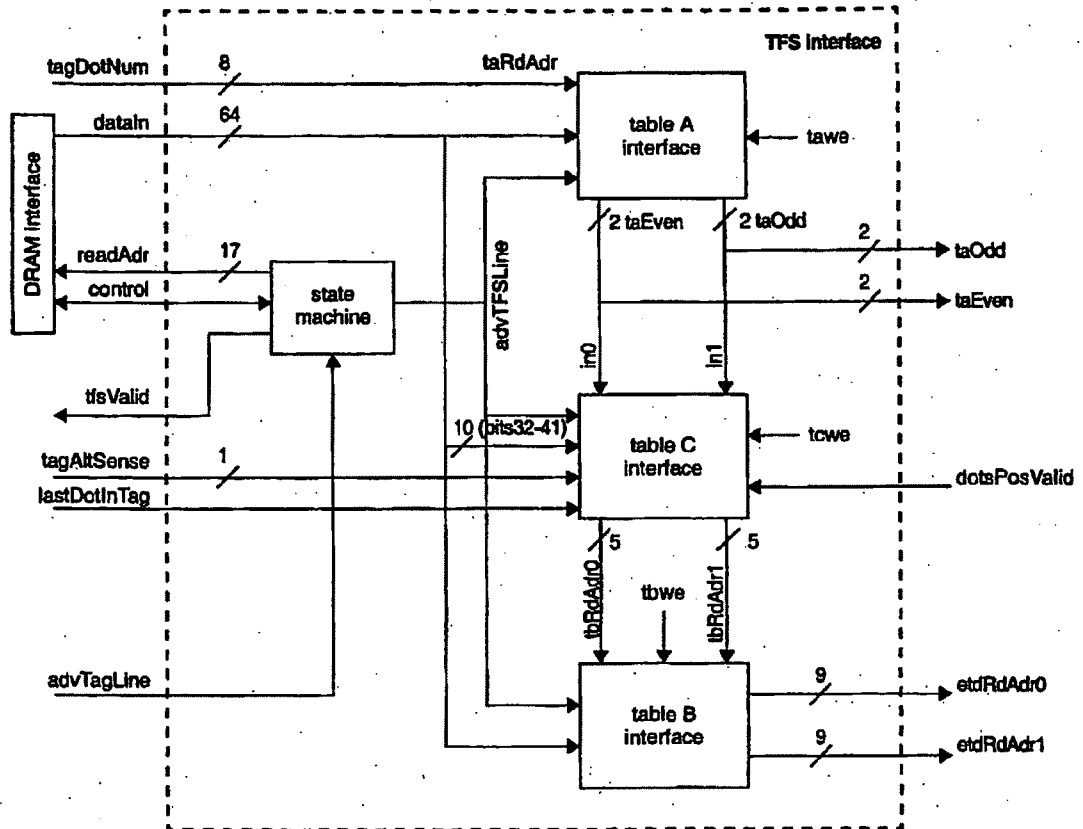


FIG. 231

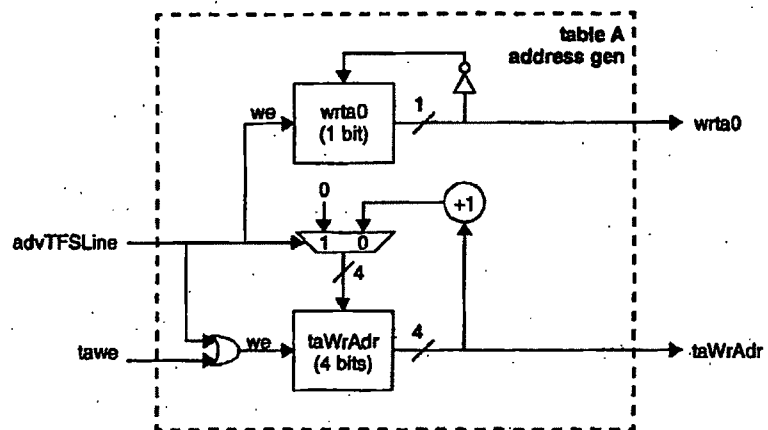


FIG. 232

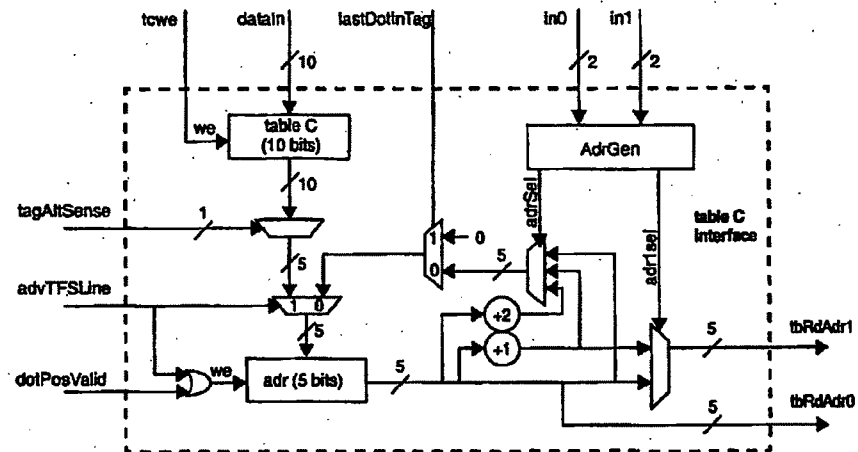


FIG. 233

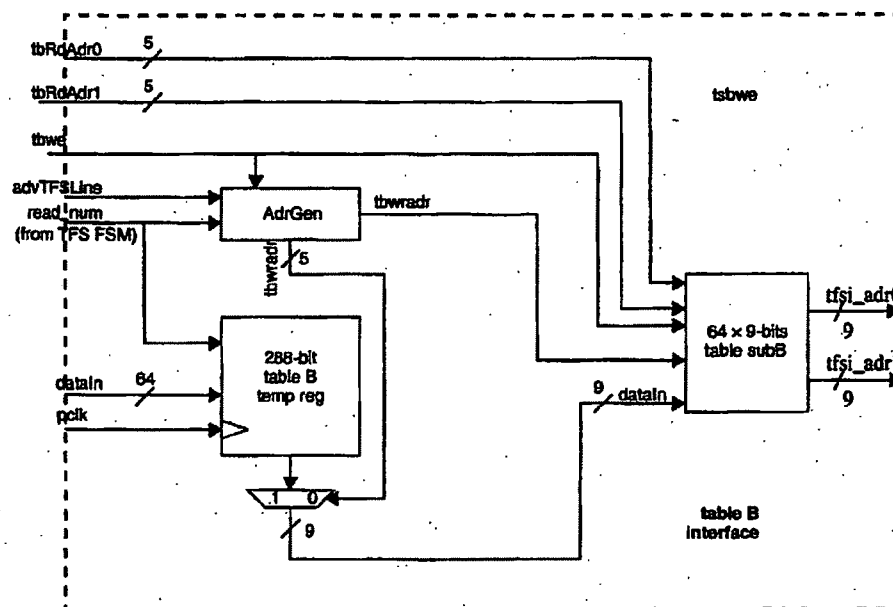


FIG. 234

142/223

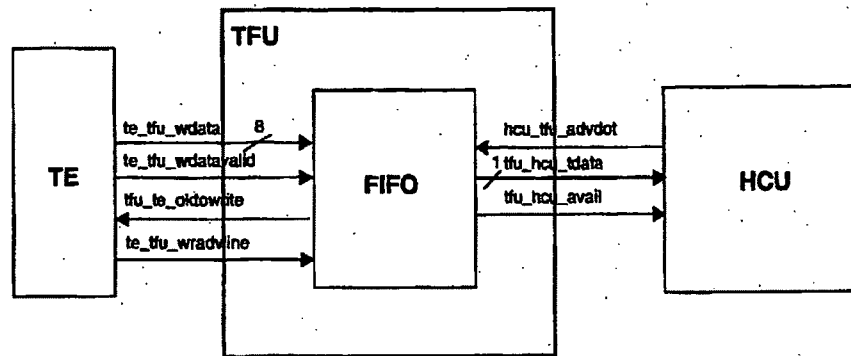


FIG. 235

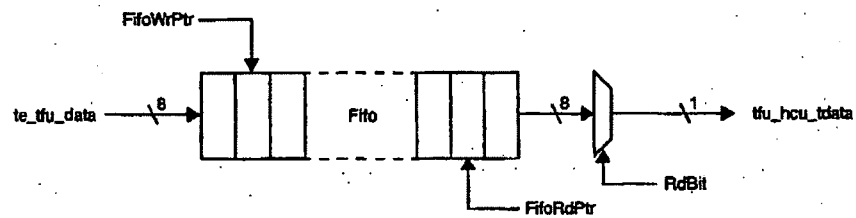


FIG. 236

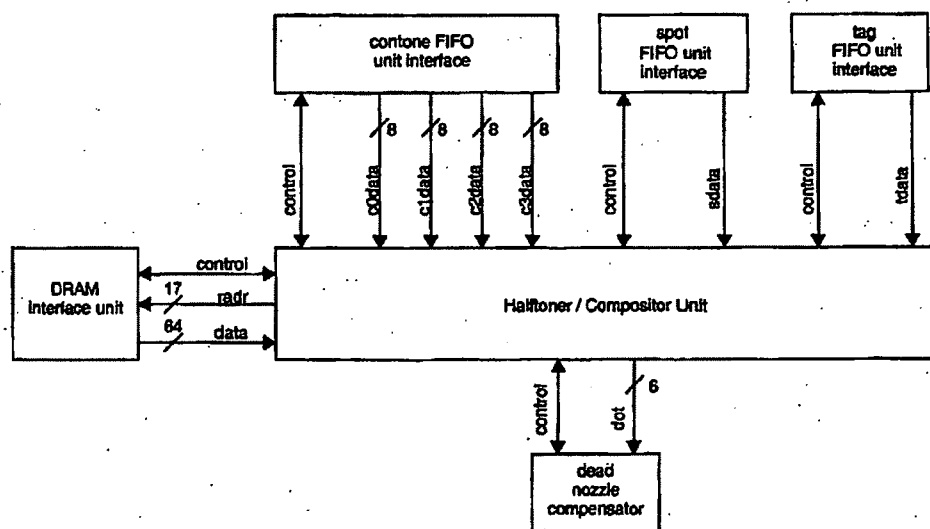


FIG. 237

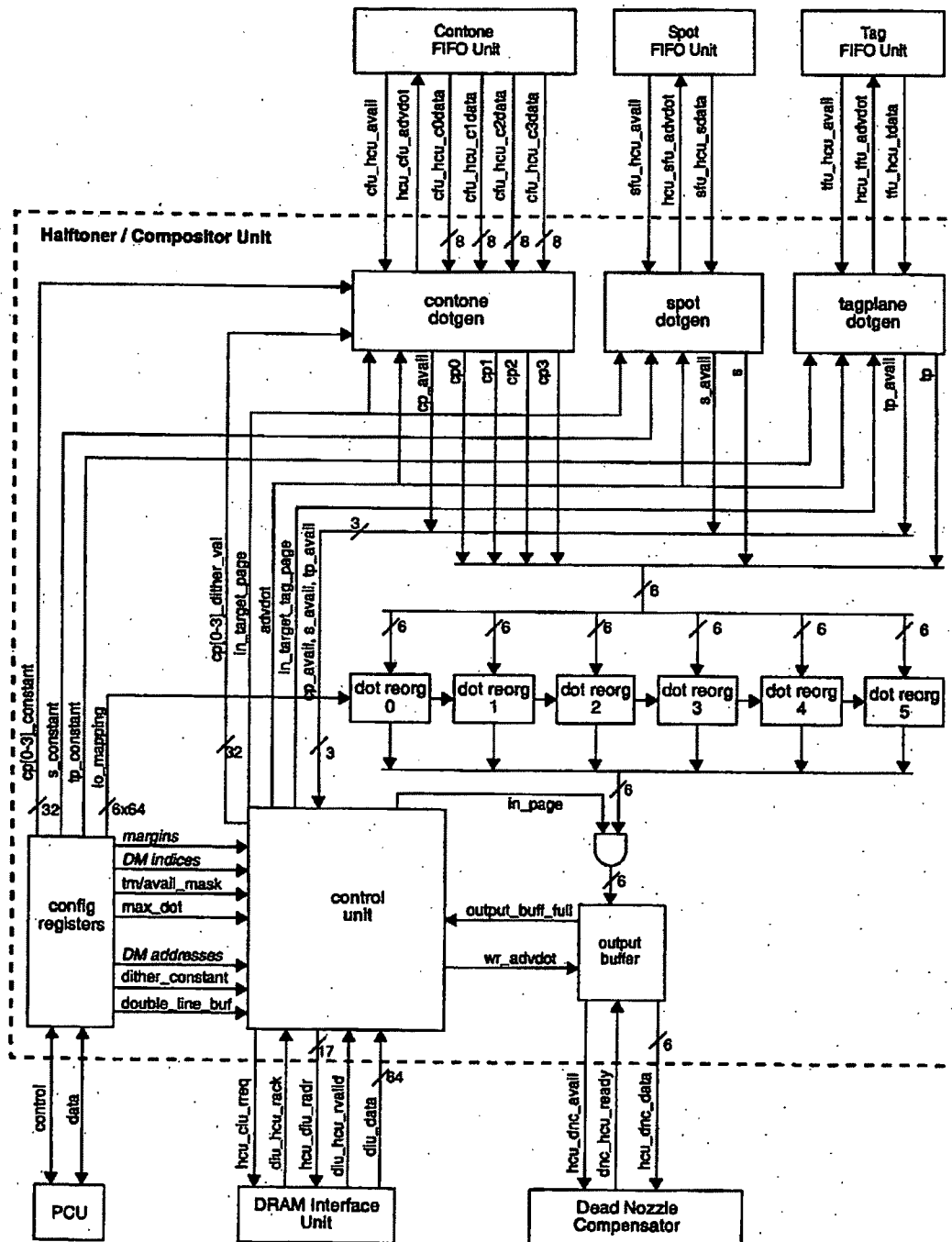


FIG. 238

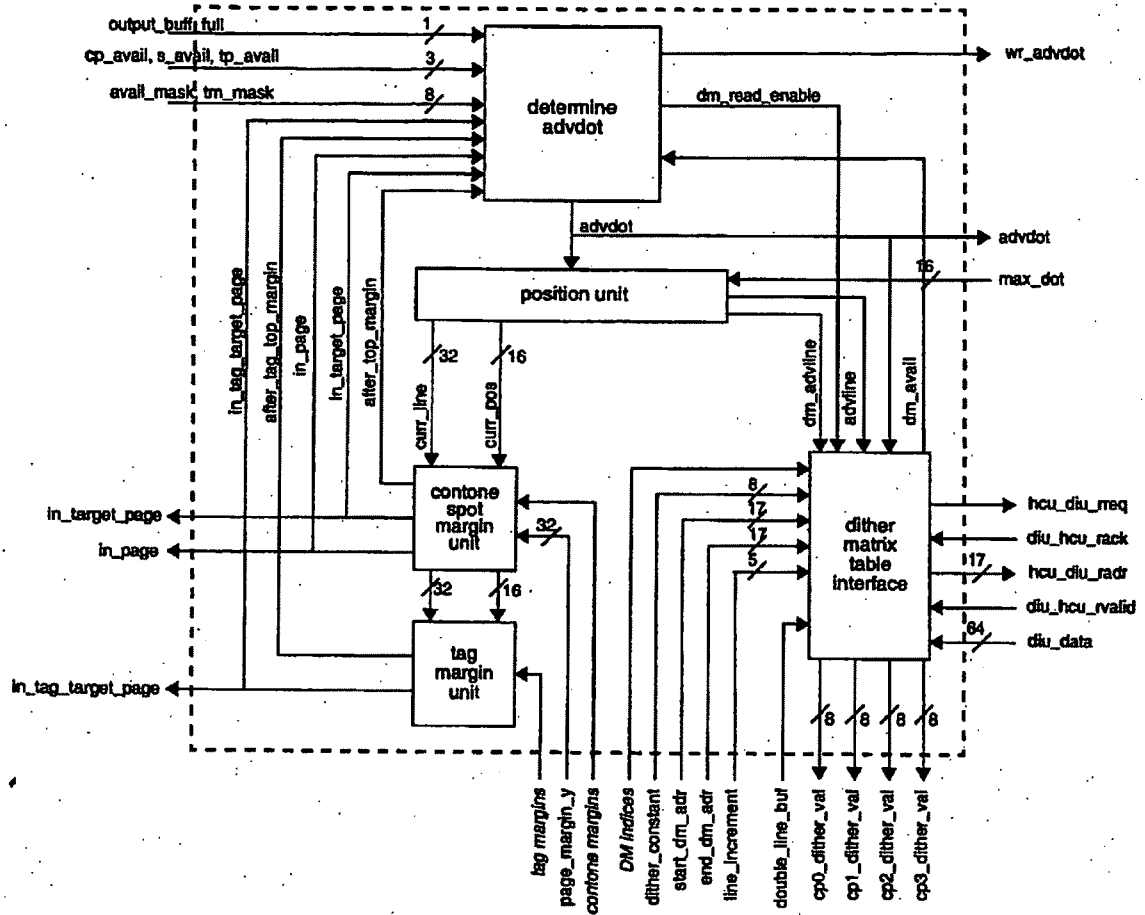


FIG. 239

145/223

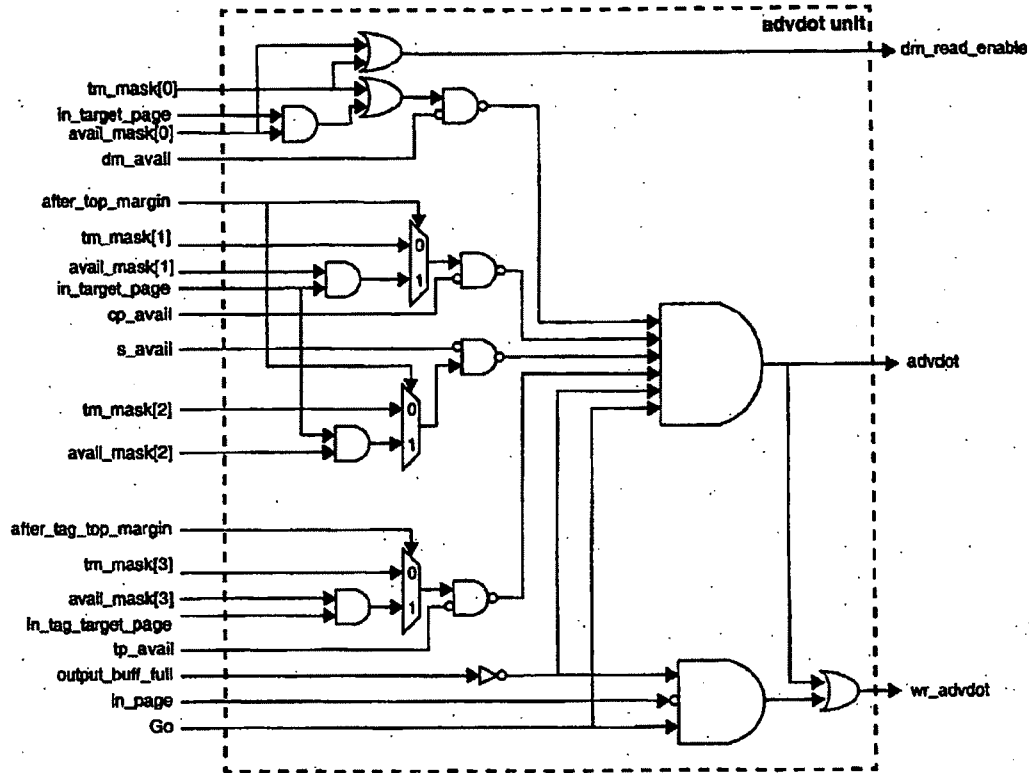


FIG. 240

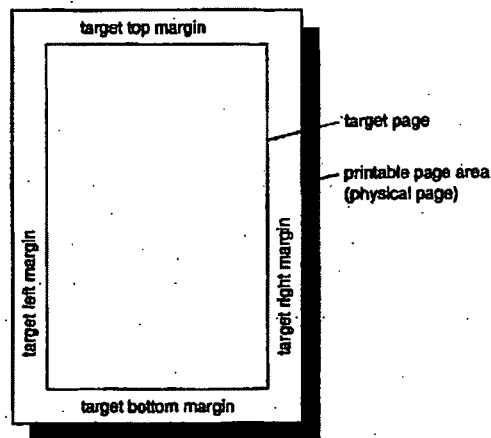


FIG. 241

146/223

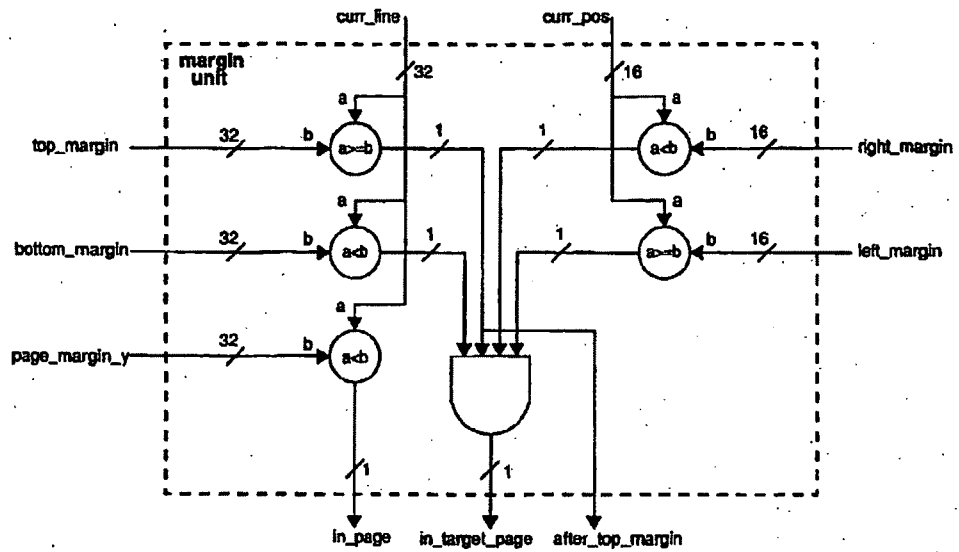


FIG. 242

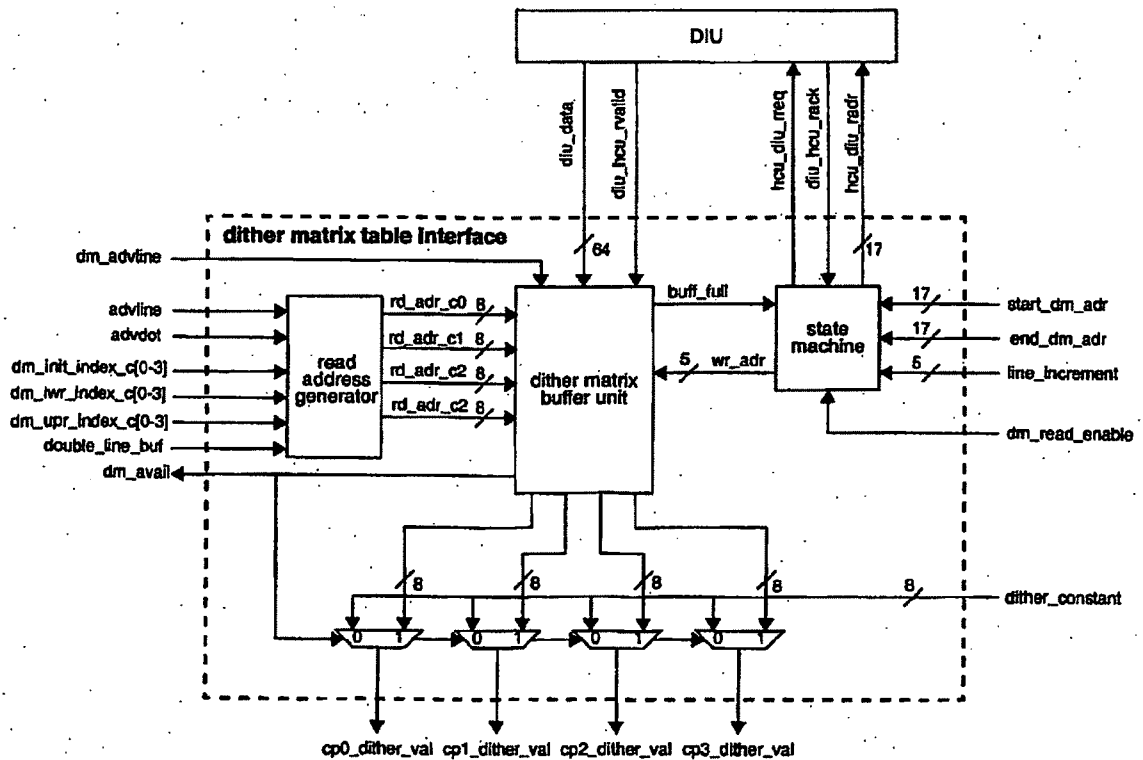


FIG. 243

147/223

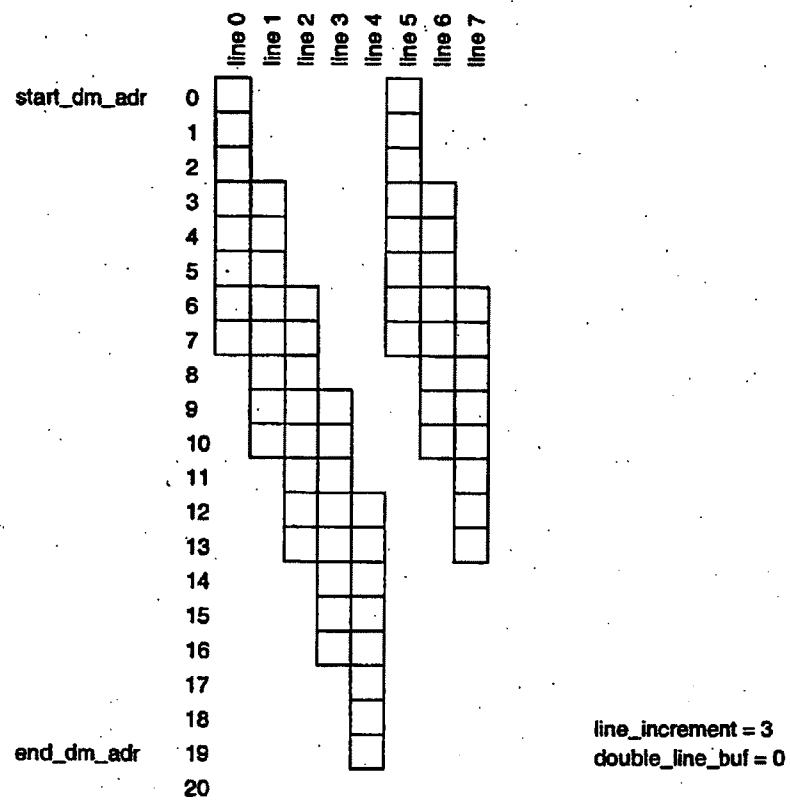


FIG. 244

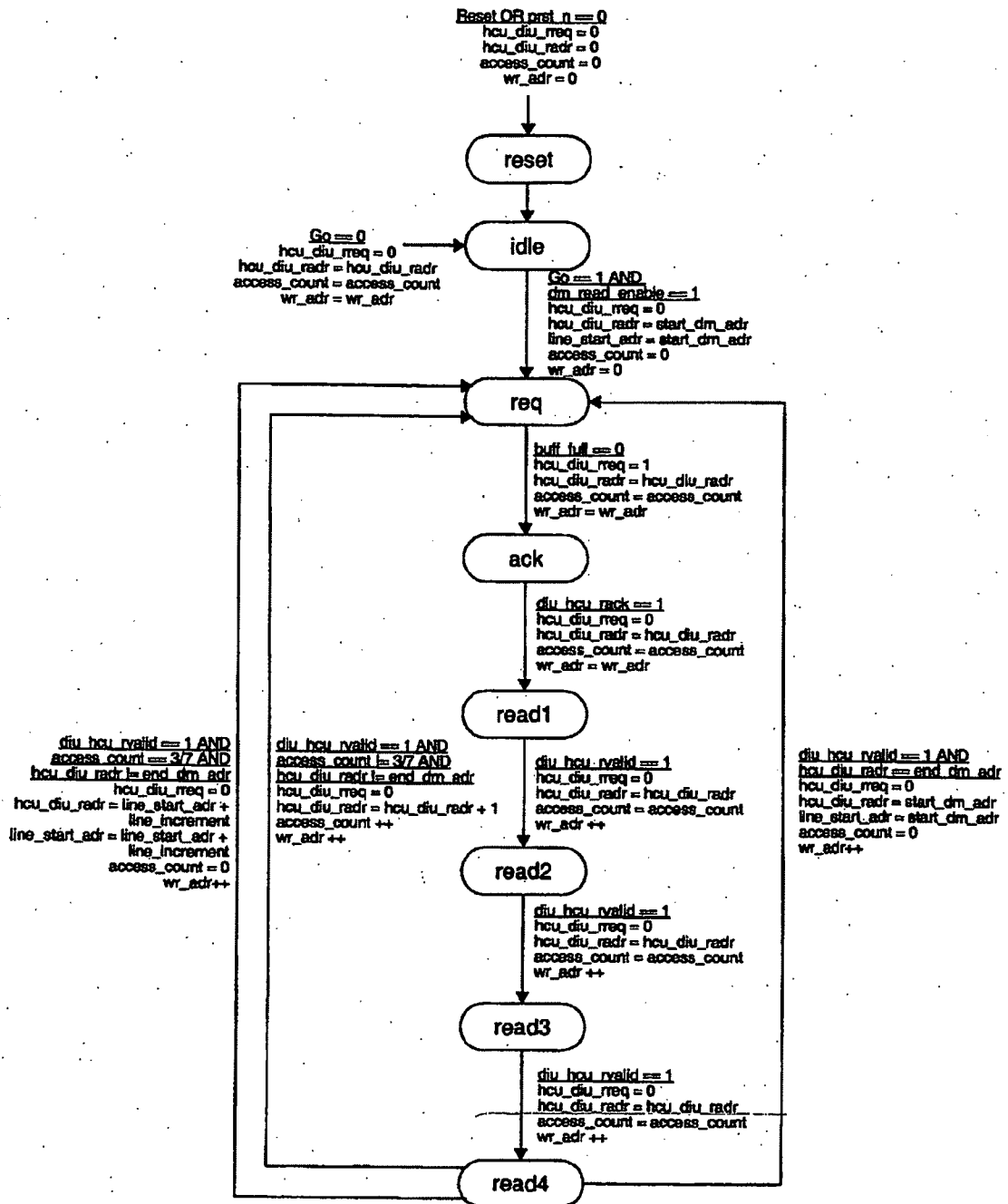


FIG. 245

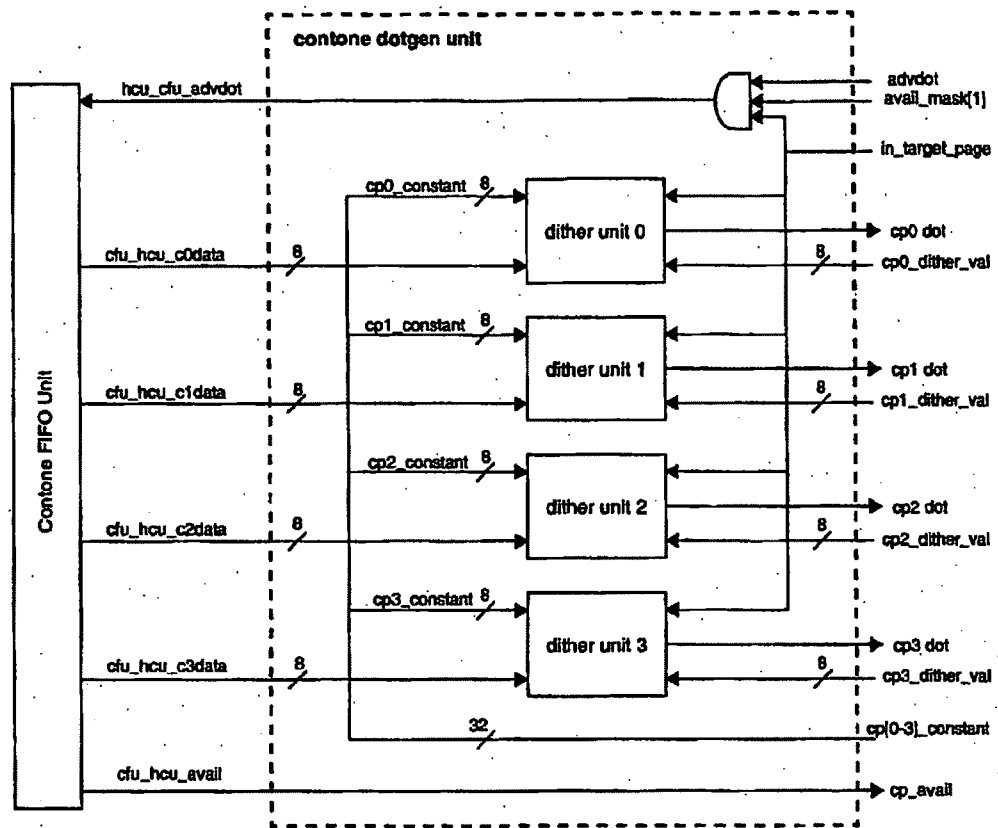


FIG. 246

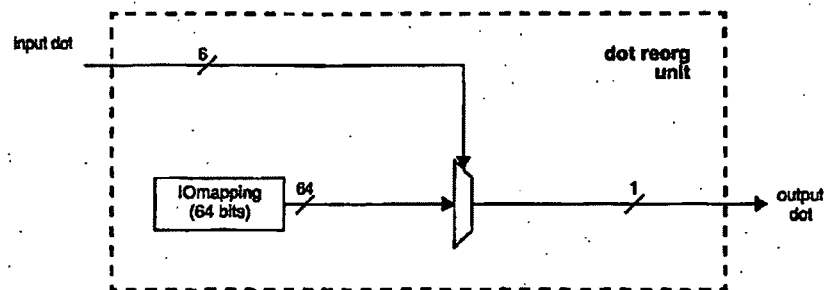


FIG. 247

150/223

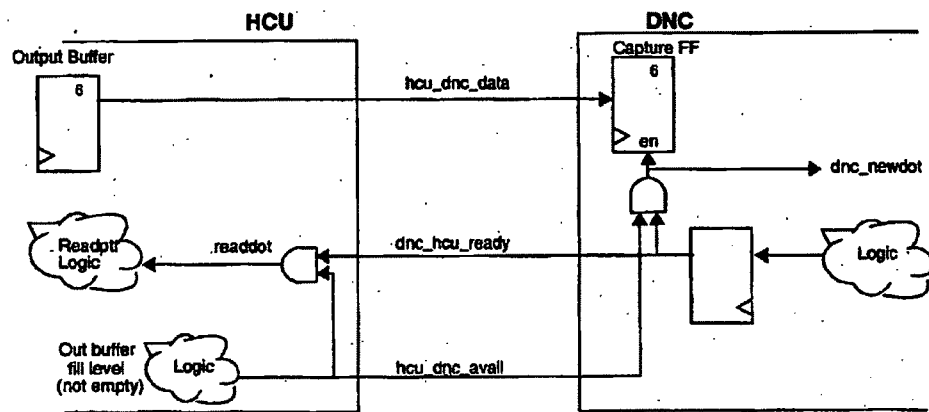
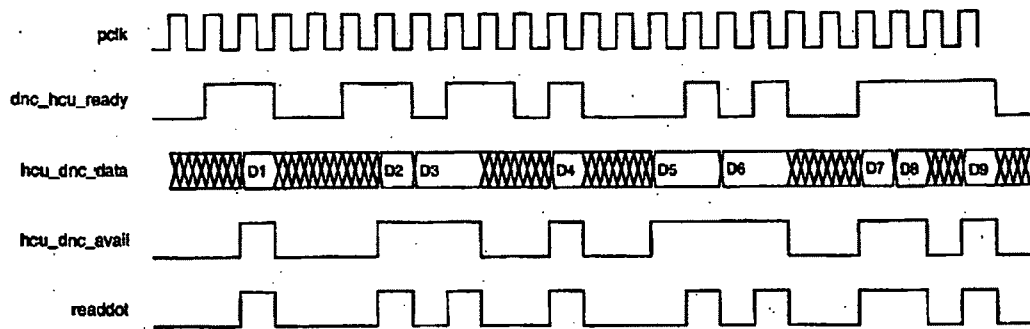


FIG. 248

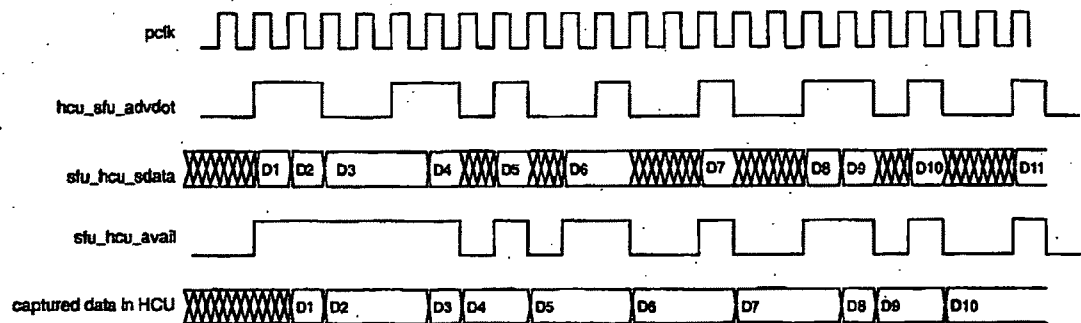


FIG. 249

151/223

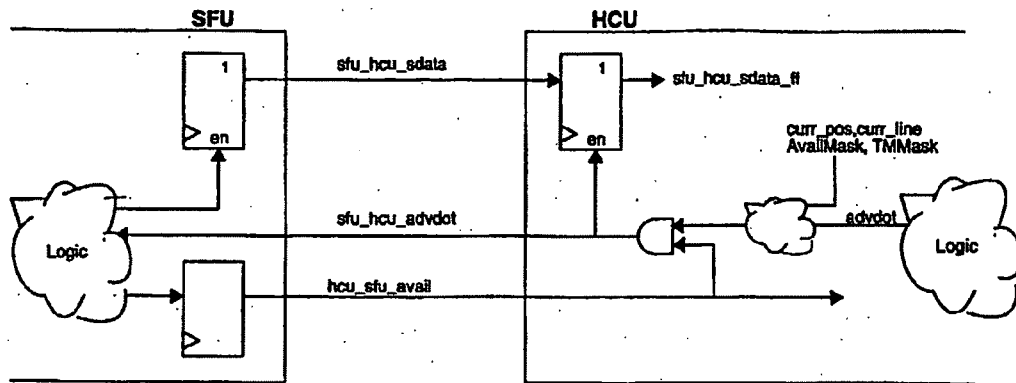


FIG. 250

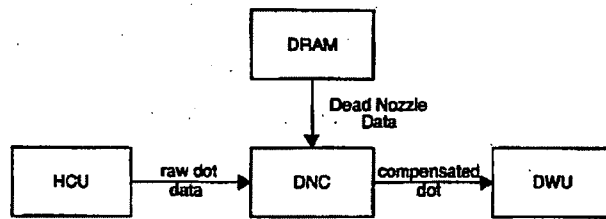


FIG. 251

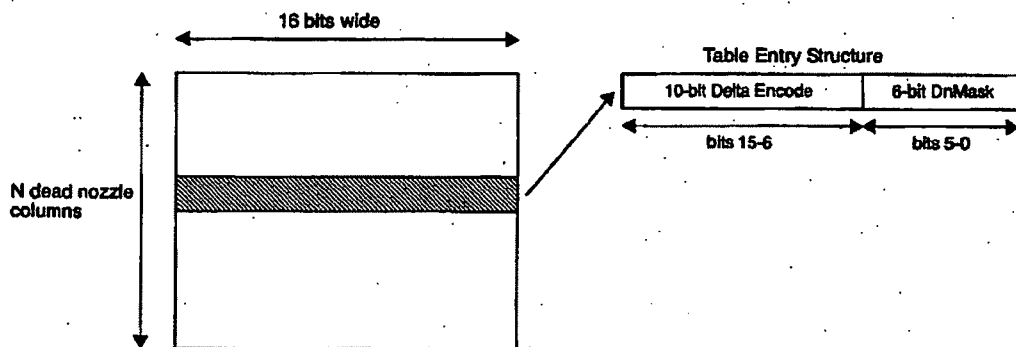


FIG. 252

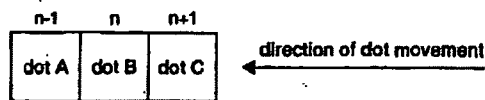


FIG. 253

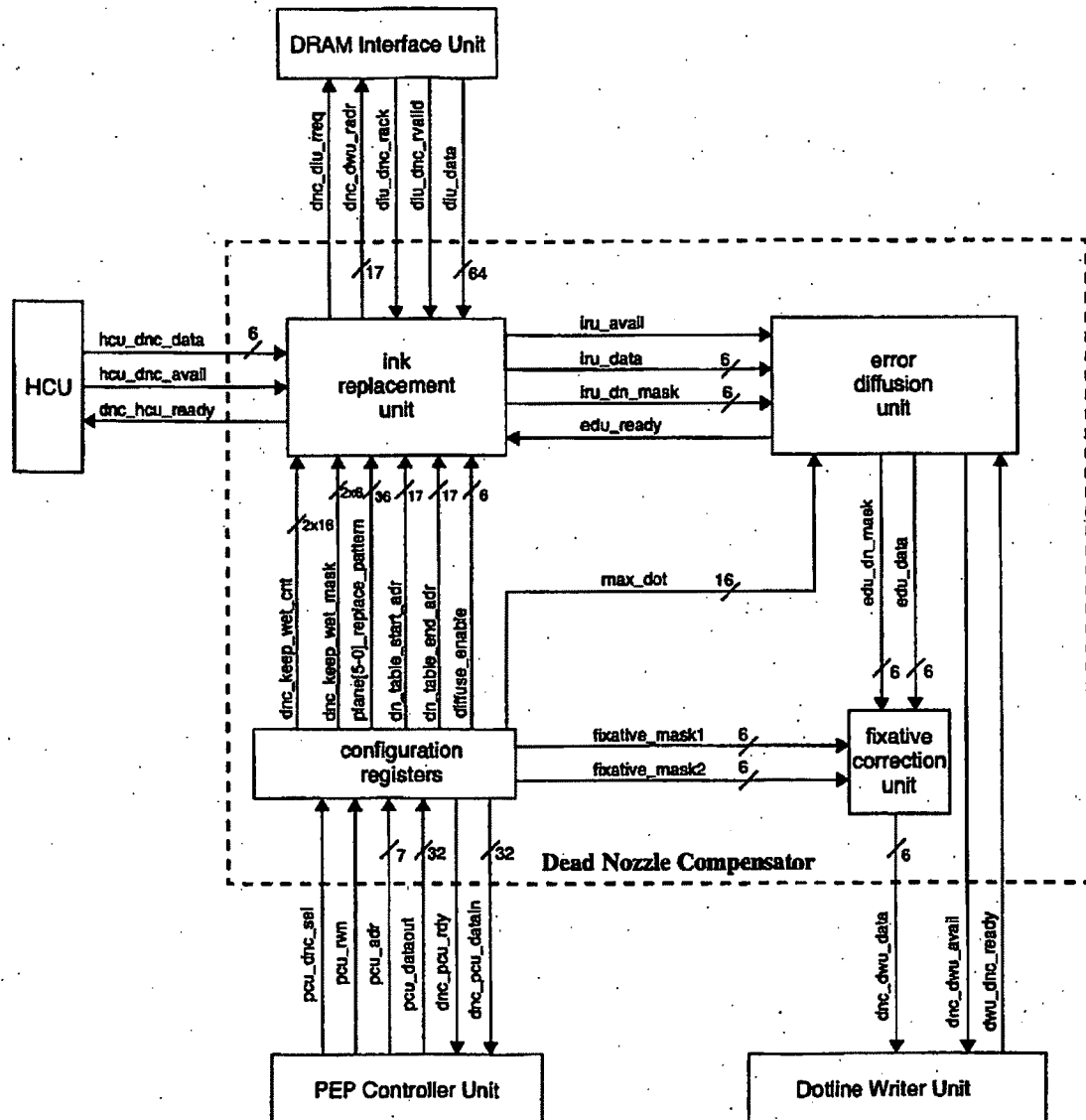


FIG. 254

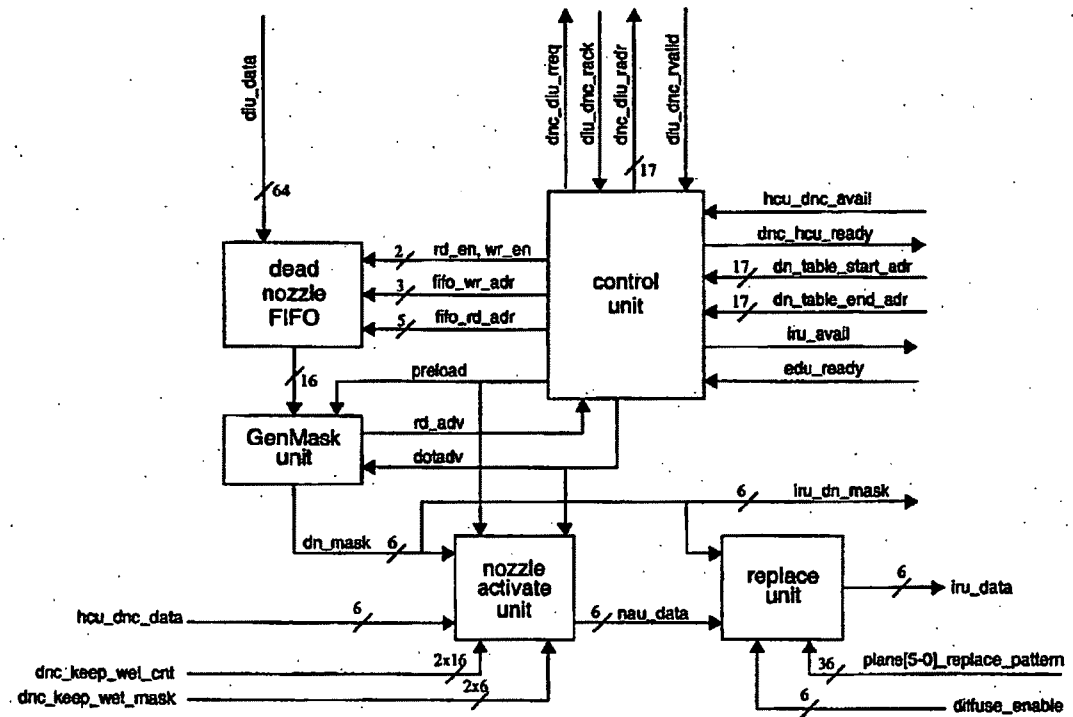


FIG. 255

154/223

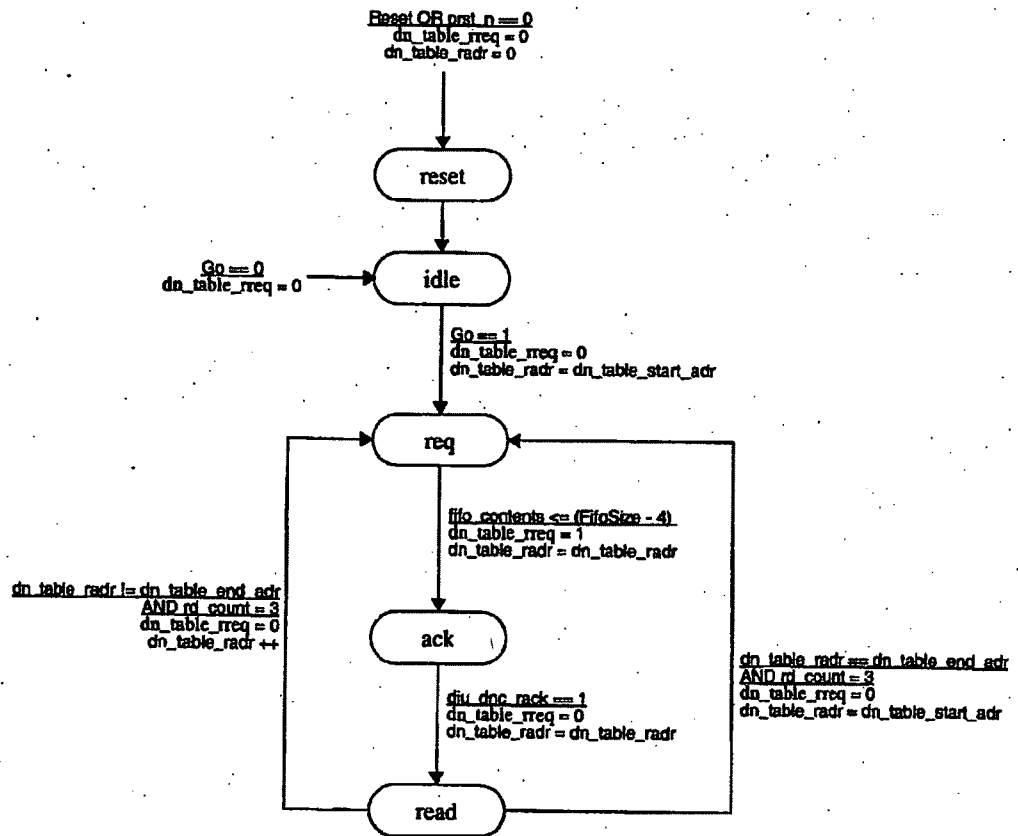


FIG. 256

155/223

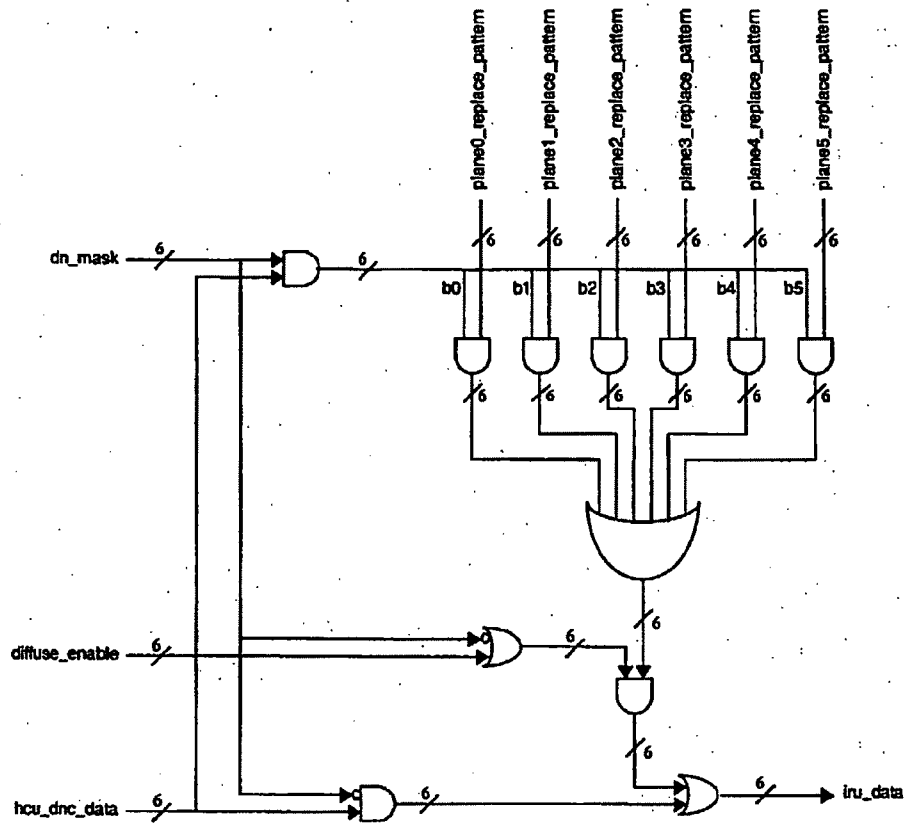


FIG. 257

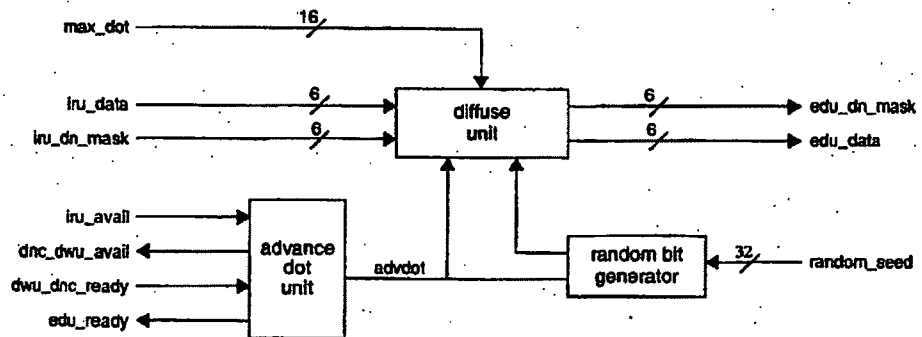


FIG. 258

156/223

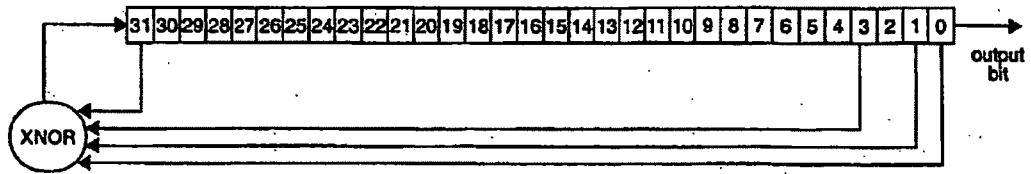


FIG. 259

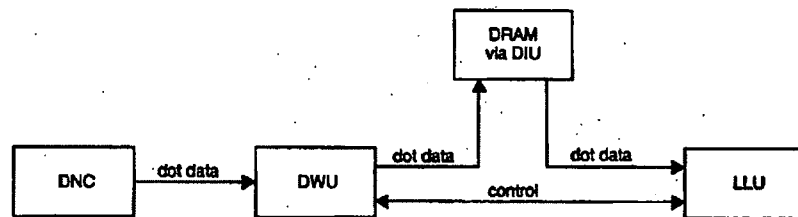
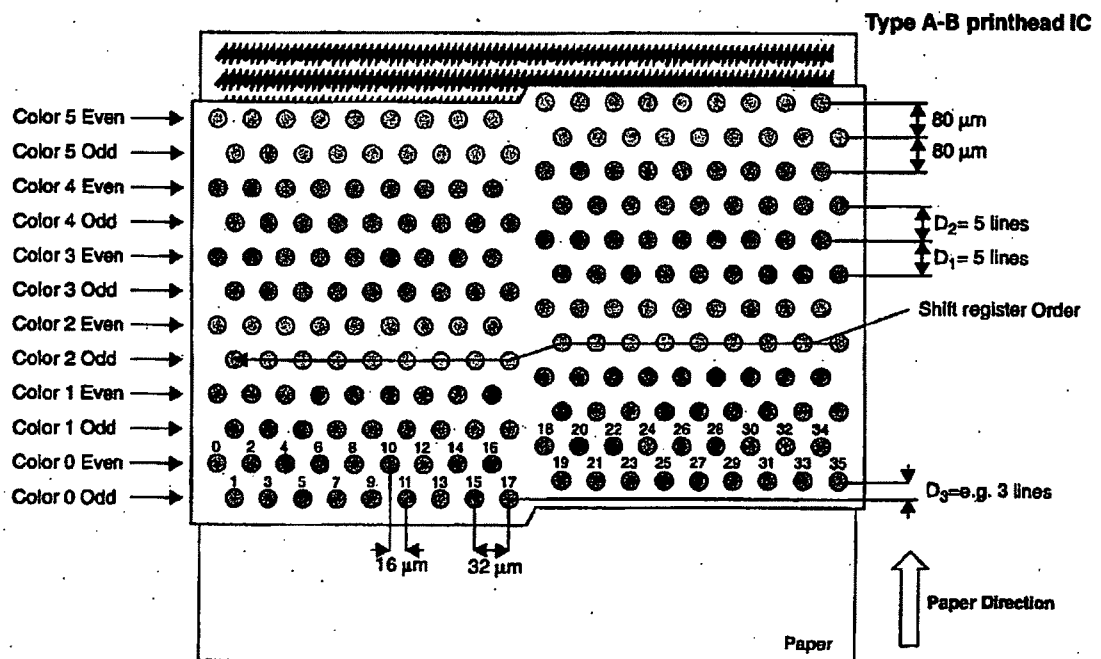


FIG. 260



Note: Paper passes under printhead

FIG. 261

157/223

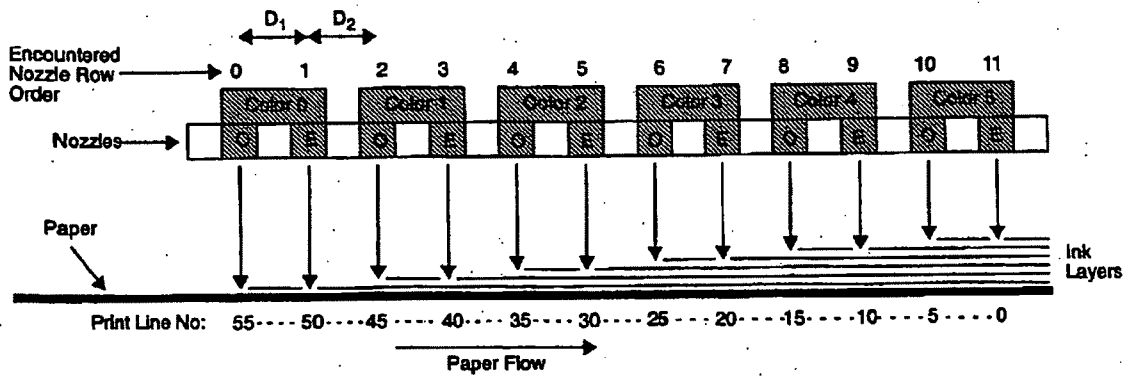


FIG. 262

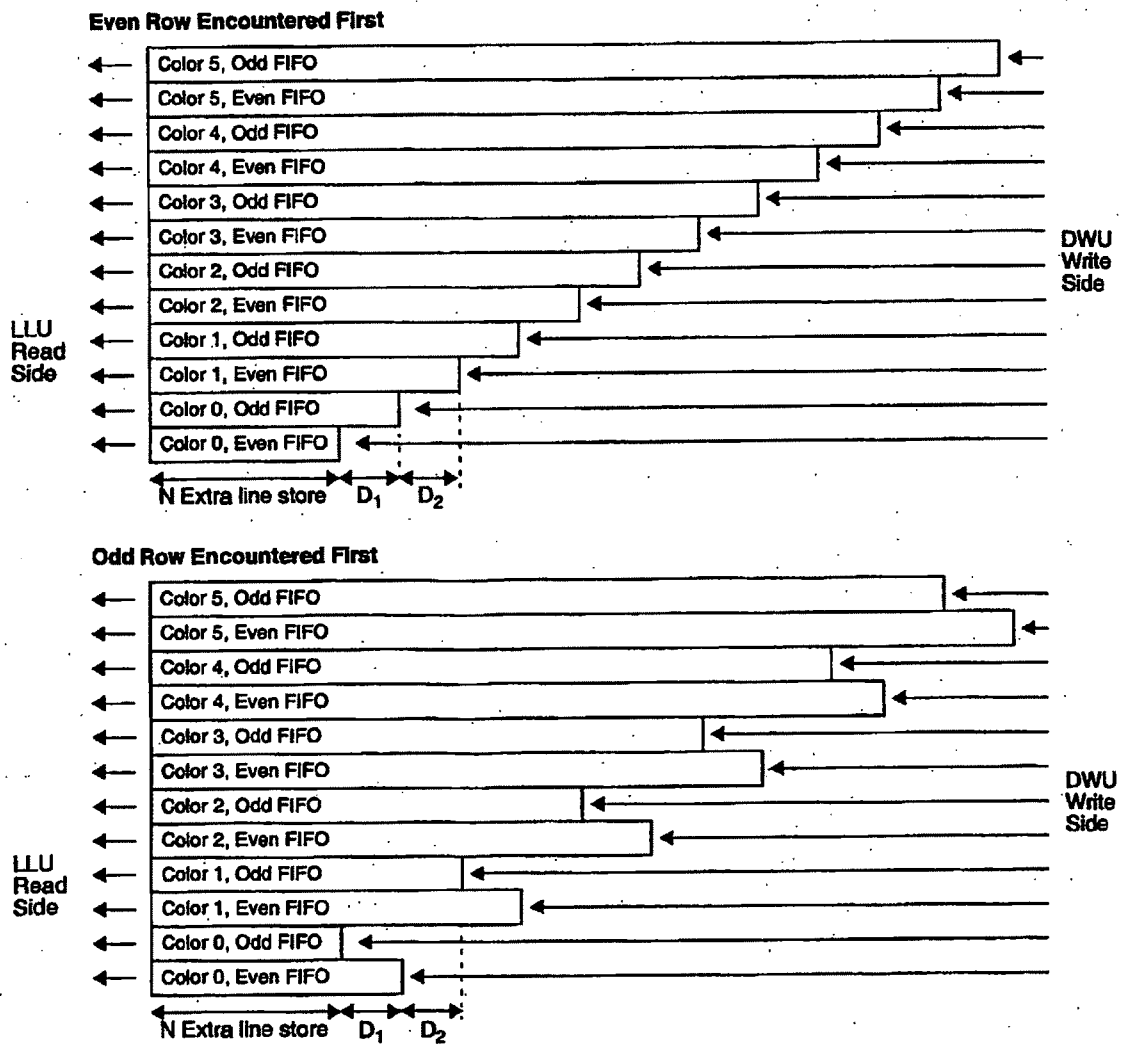


FIG. 263

158/223

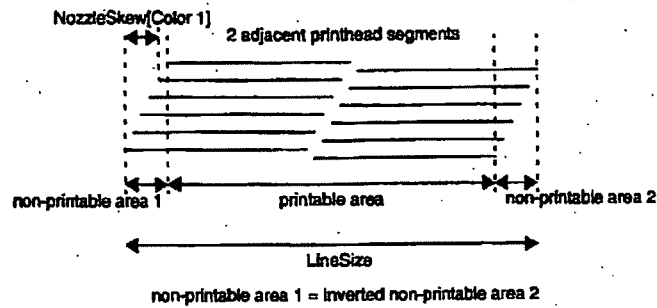


FIG. 264

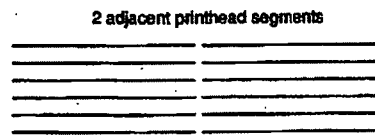


FIG. 265

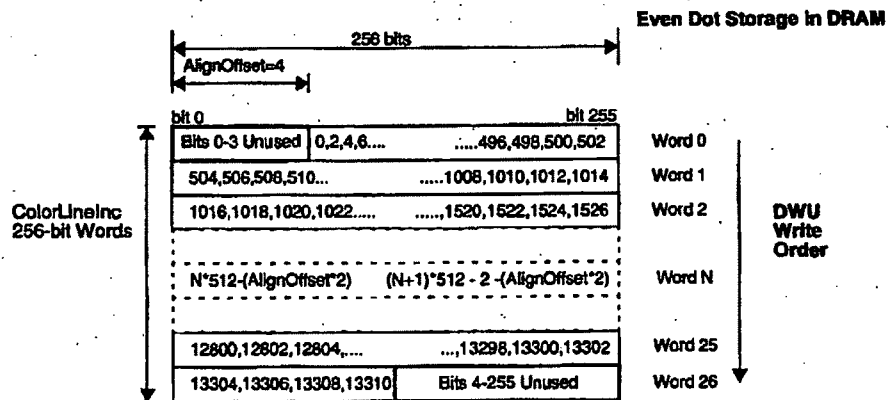


FIG. 266

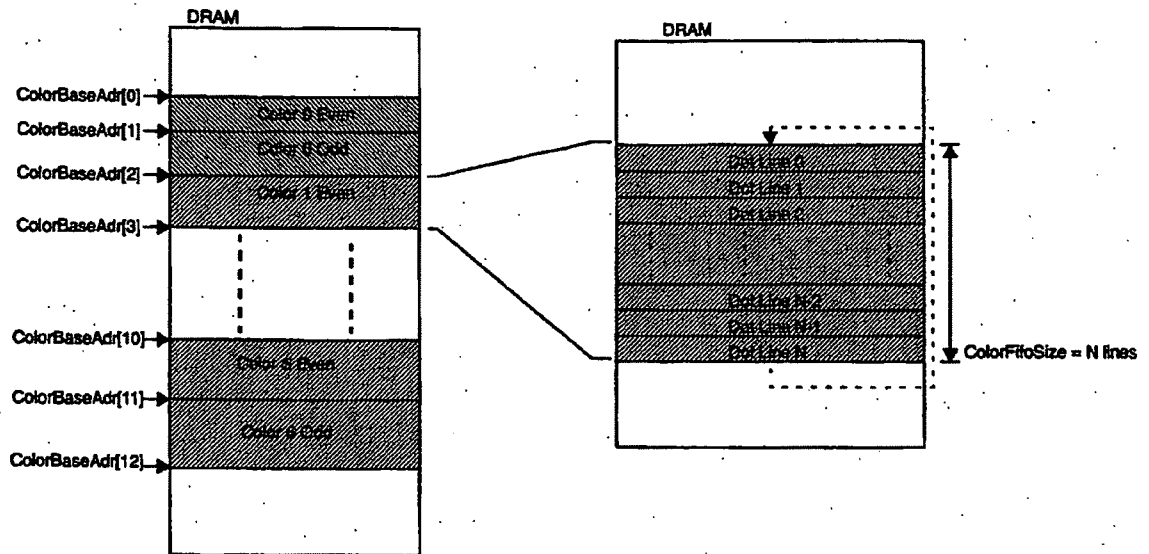


FIG. 267

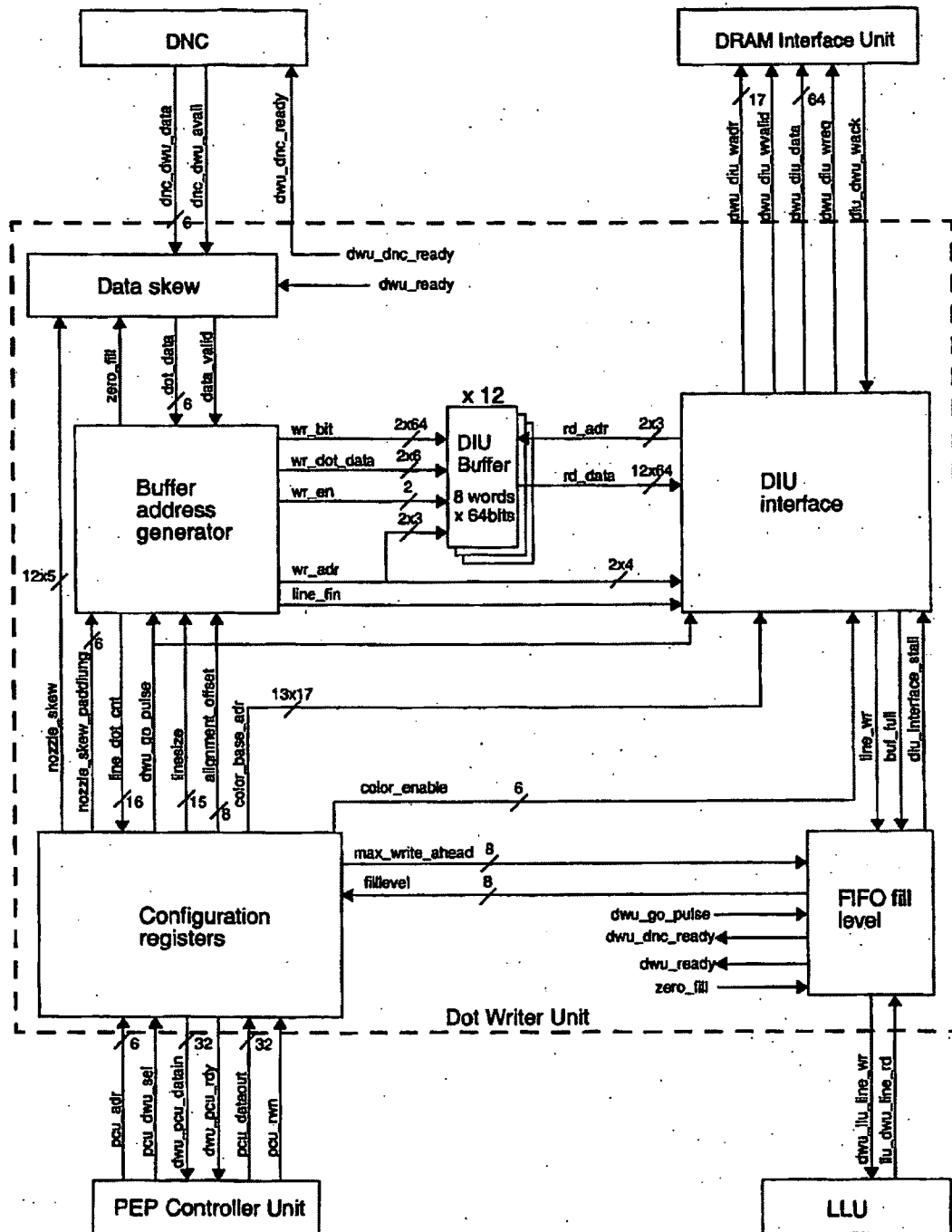


FIG. 268

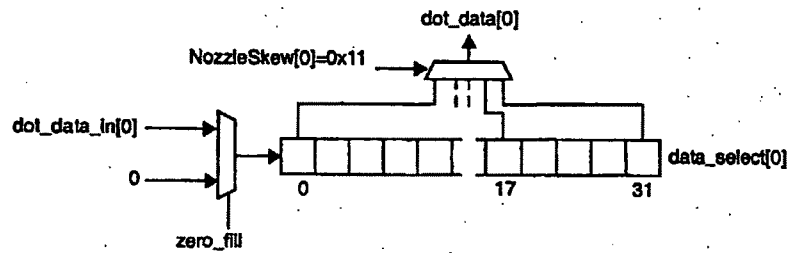


FIG. 269

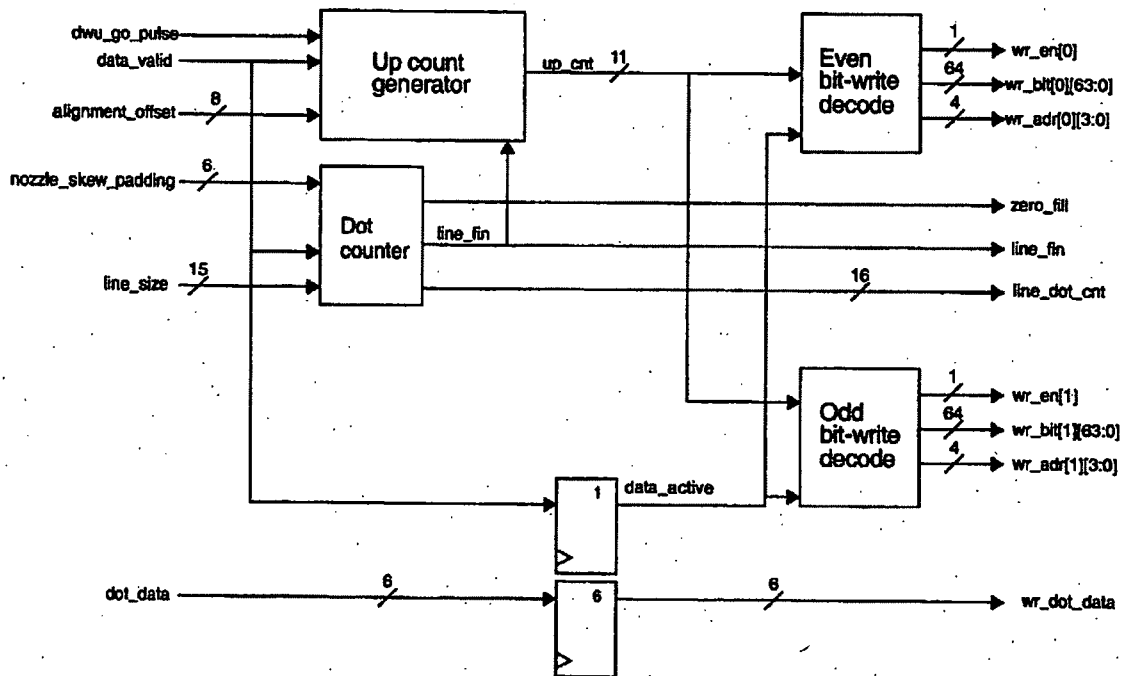


FIG. 270

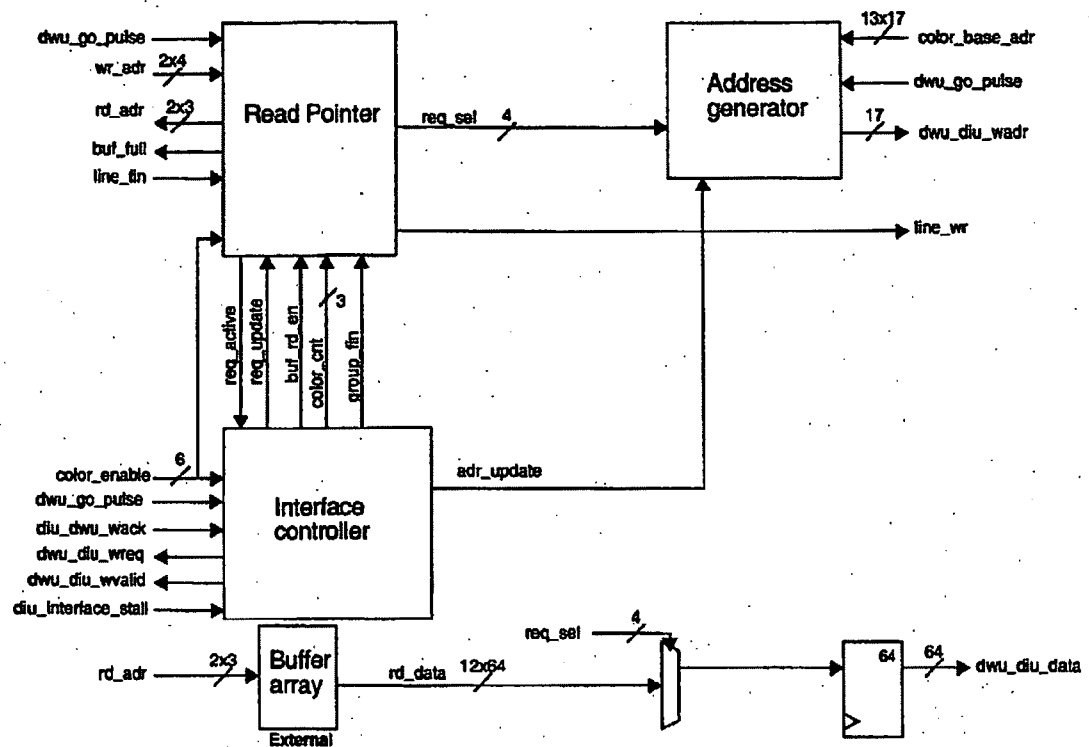
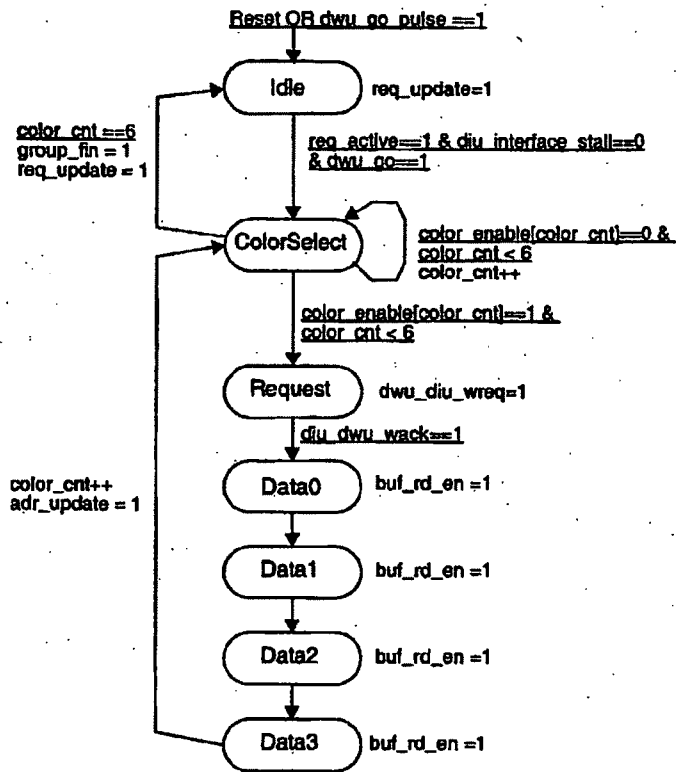


FIG. 271

163/223



Machine remains in same state by default
All outputs are zero unless otherwise stated

State Description:

Idle: Idle state wait for active request
ColorSelect: Select the color to update before requesting to DIU

Request: Request issued wait for acknowledge

Data0: Data word 0 transfer

Data1: Data word 1 transfer

Data2: Data word 2 transfer

Data3: Data word 3 transfer

FIG. 272

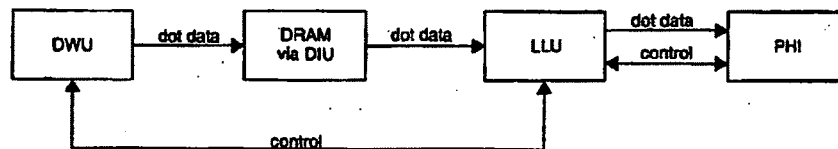


FIG. 273

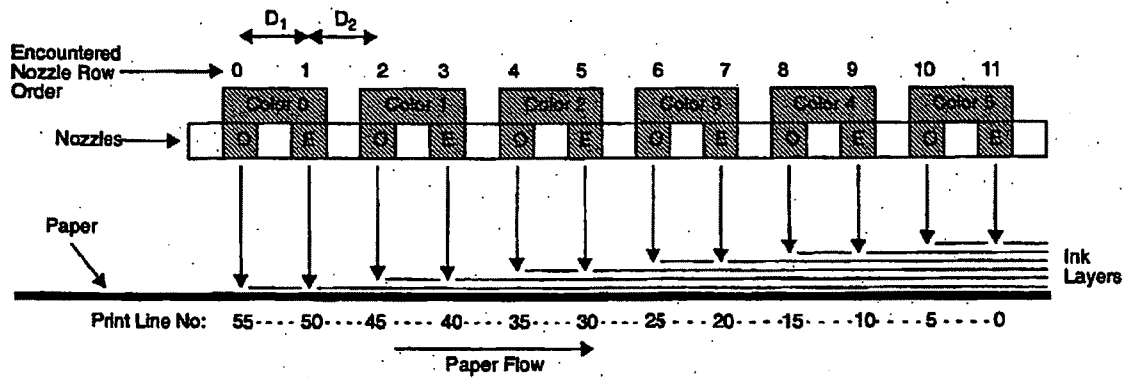


FIG. 274

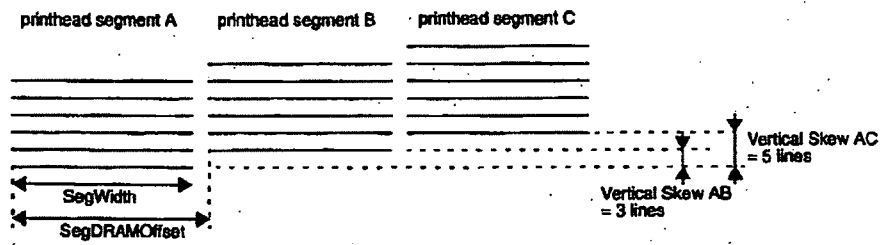


FIG. 275

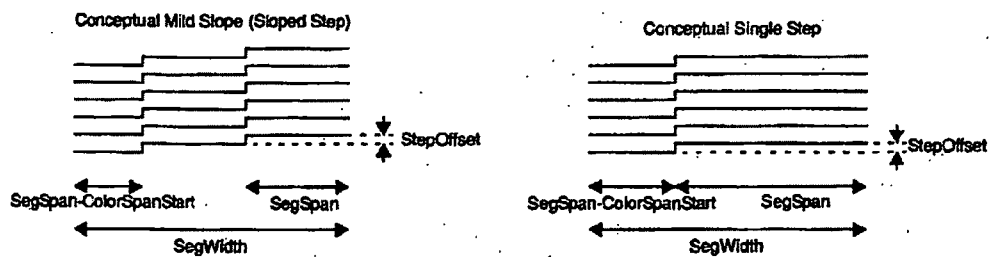


FIG. 276

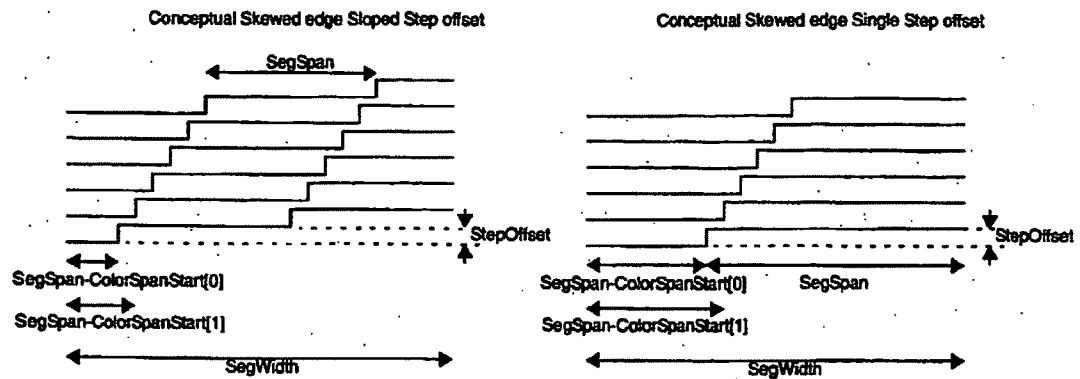


FIG. 277

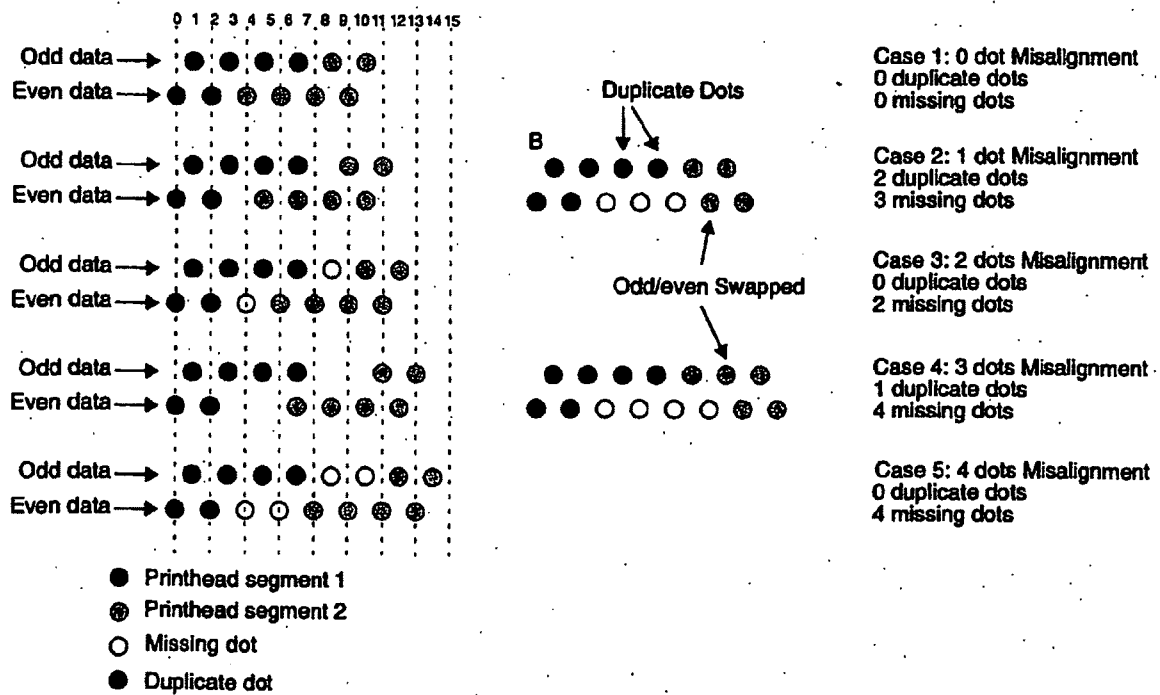


FIG. 278

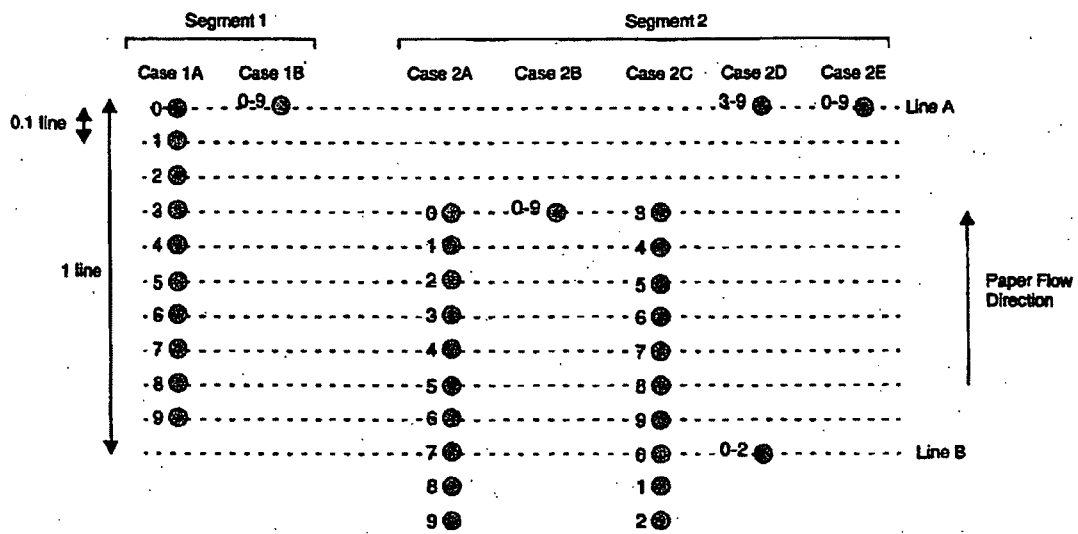


FIG. 279

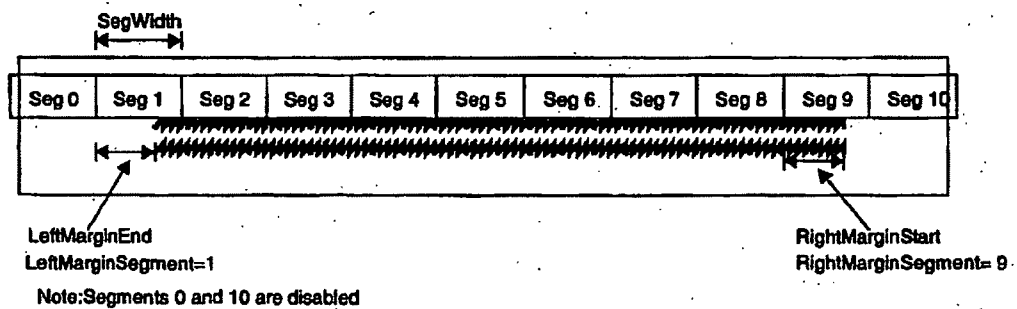


FIG. 280

167/223

Generate dot order (to the PHI)

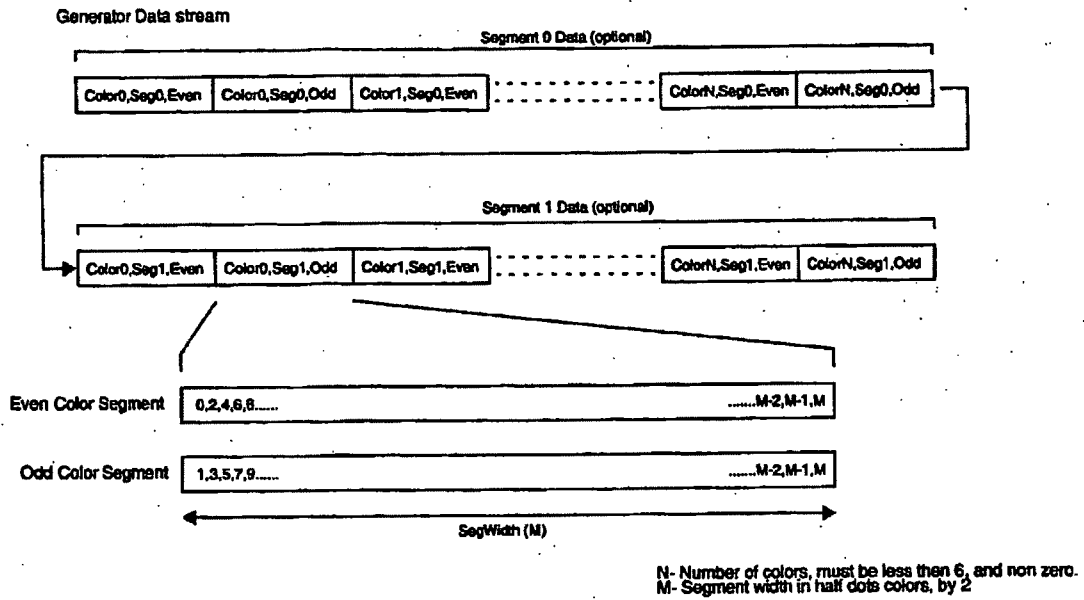


FIG. 281

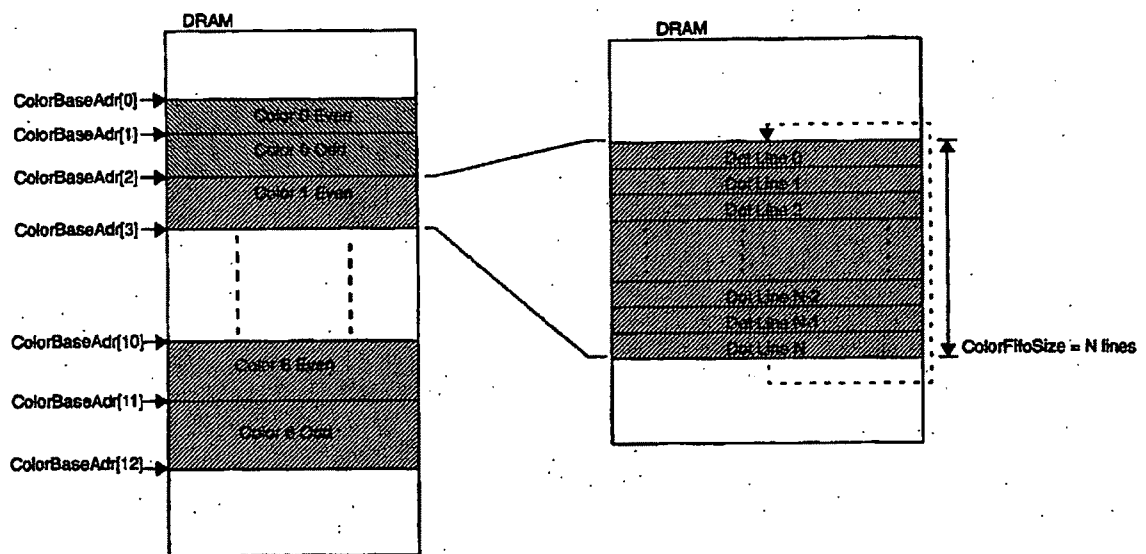


FIG. 282

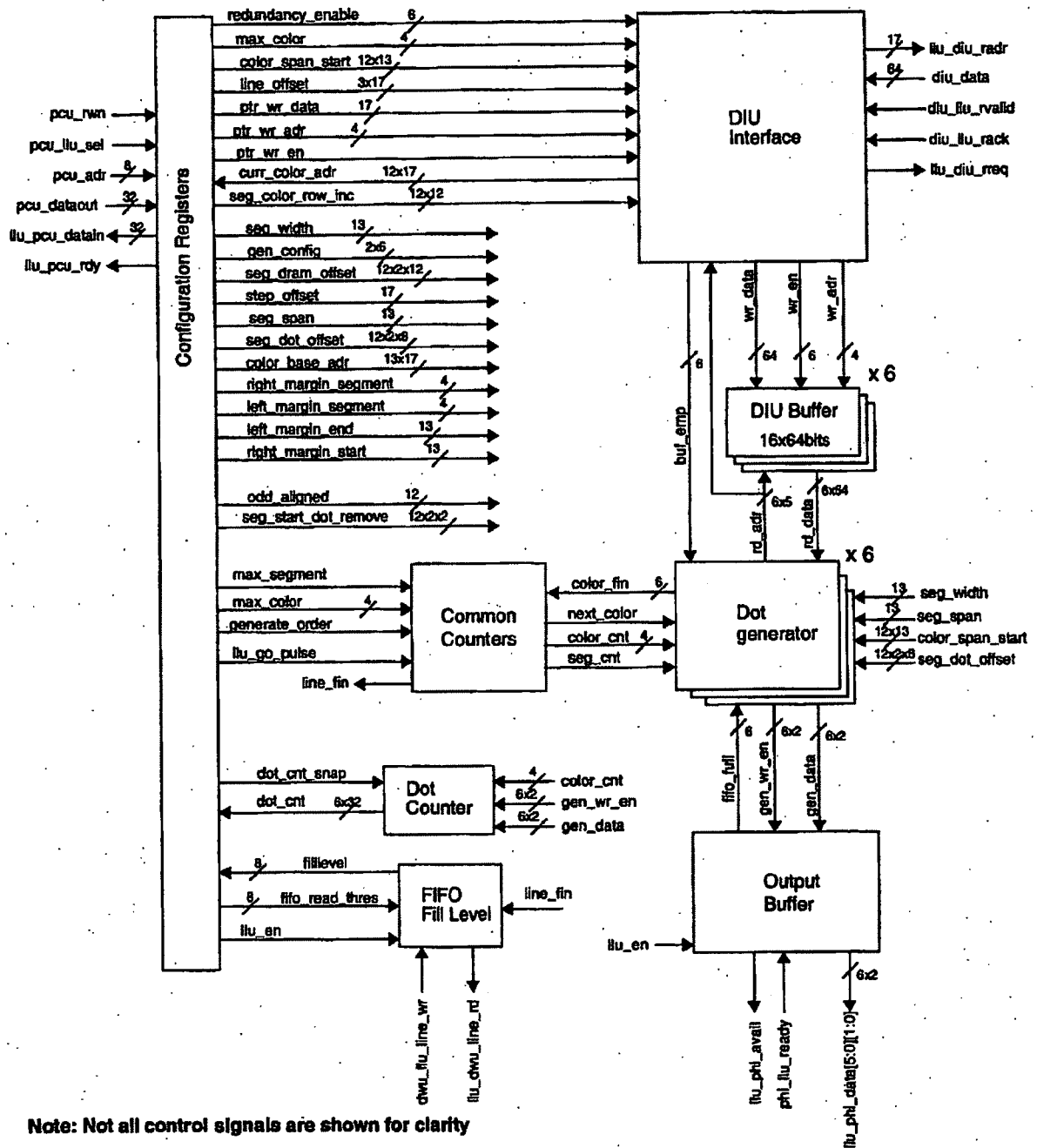


FIG. 283

169/223

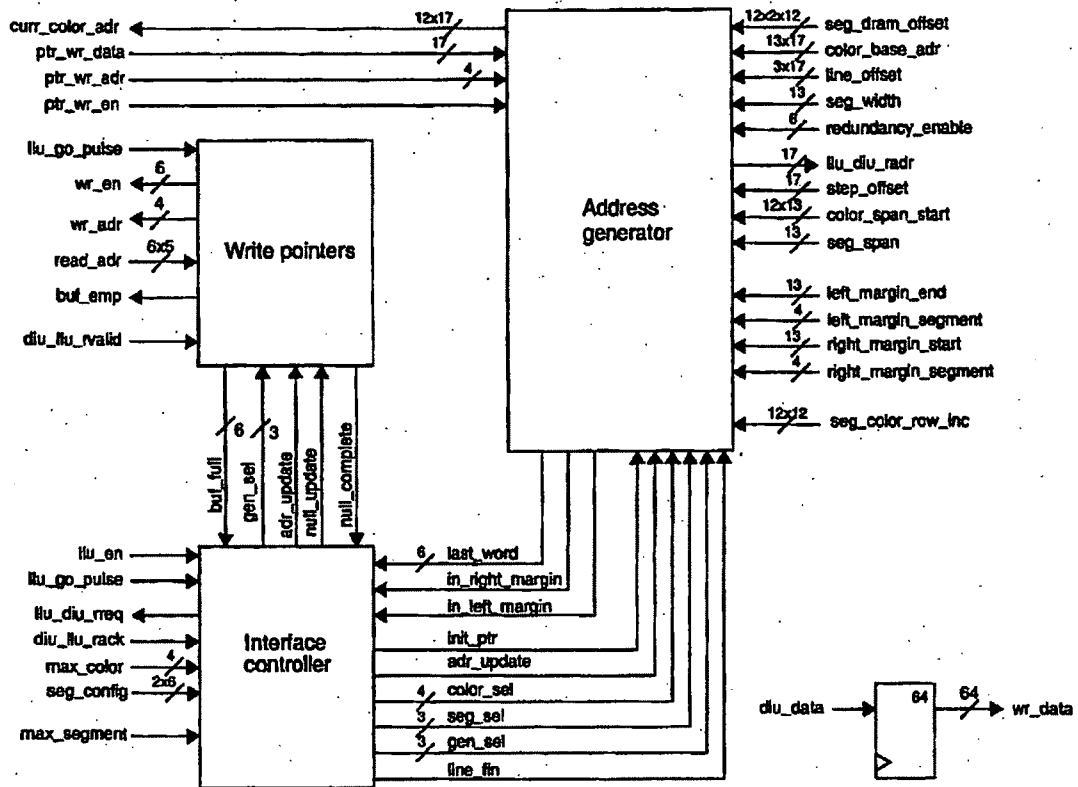
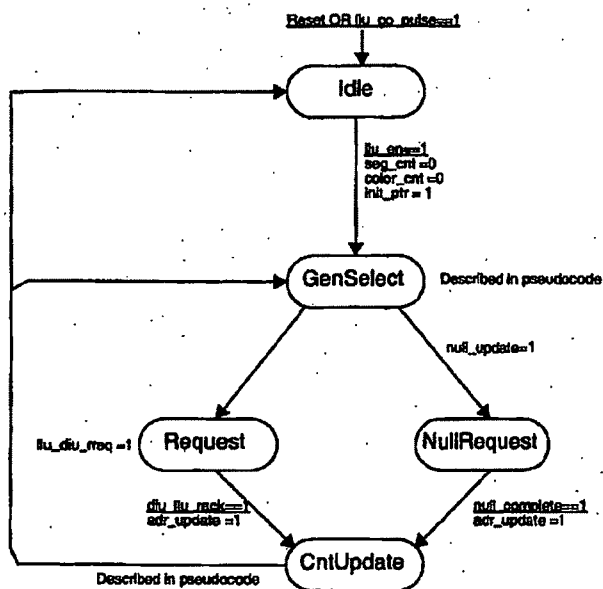


FIG. 284



Machine remains in same state by default
All outputs are zero unless otherwise stated

State Description:

Idle: Idle state wait for active request

GenSelect: Select the correct generator to update before requesting to DIU

Request: Request issued wait for acknowledge

NullRequest: Request that buffer be filled with null data, wait for completion

CntUpdate: Update the address pointers

FIG. 285

170/223

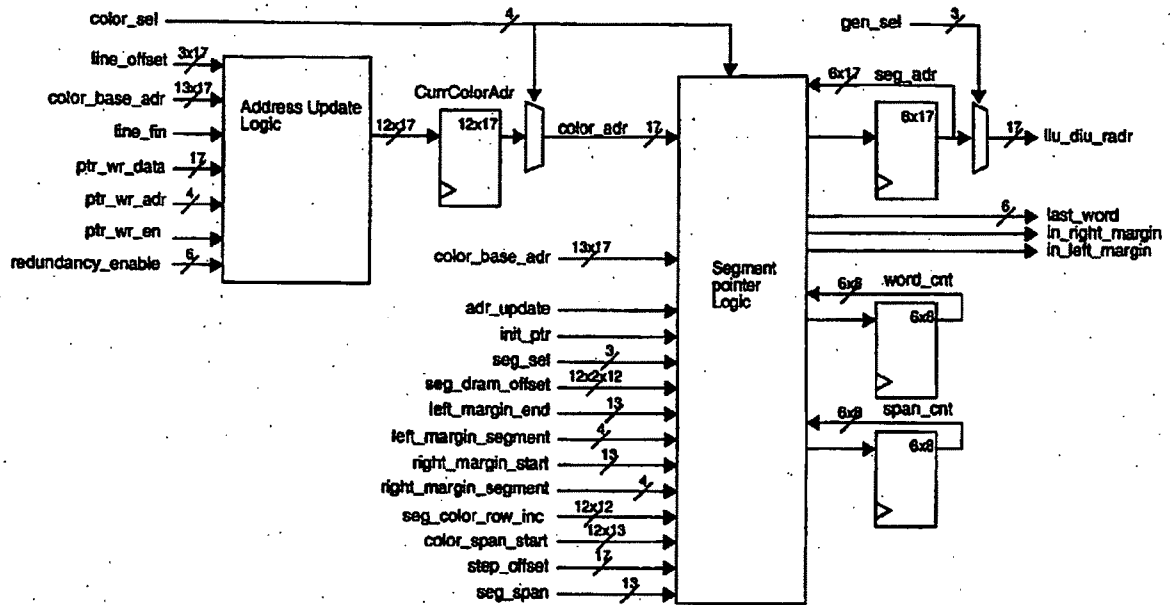


FIG. 286

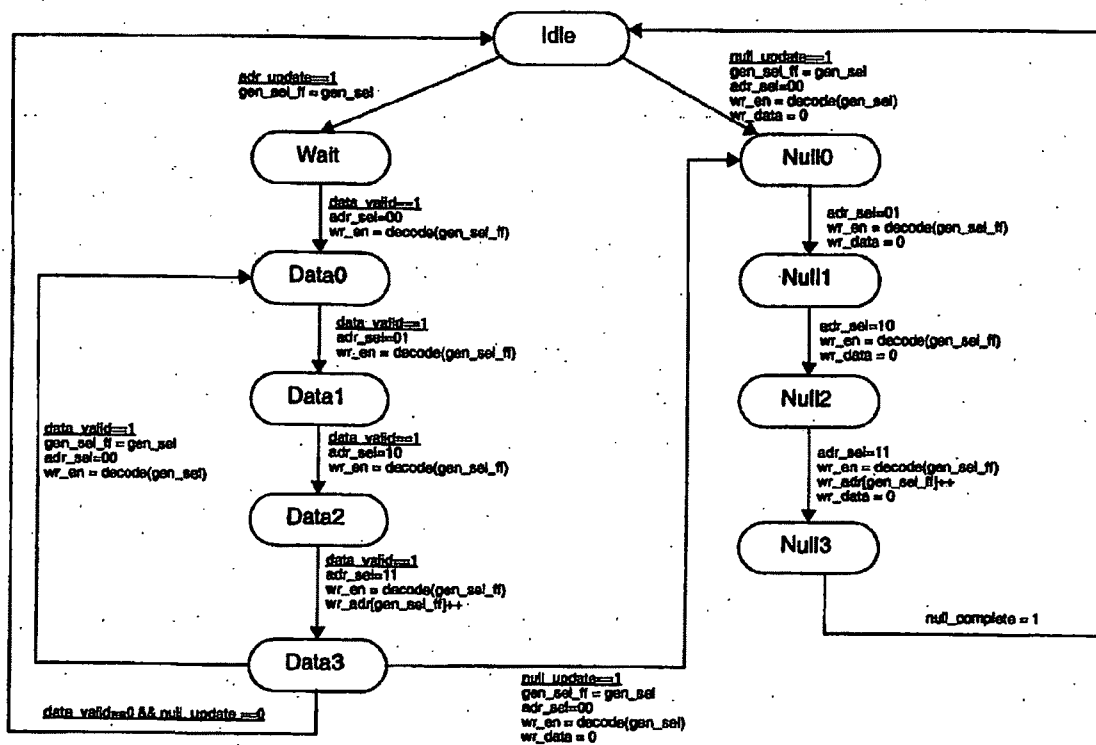


FIG. 287

171/223

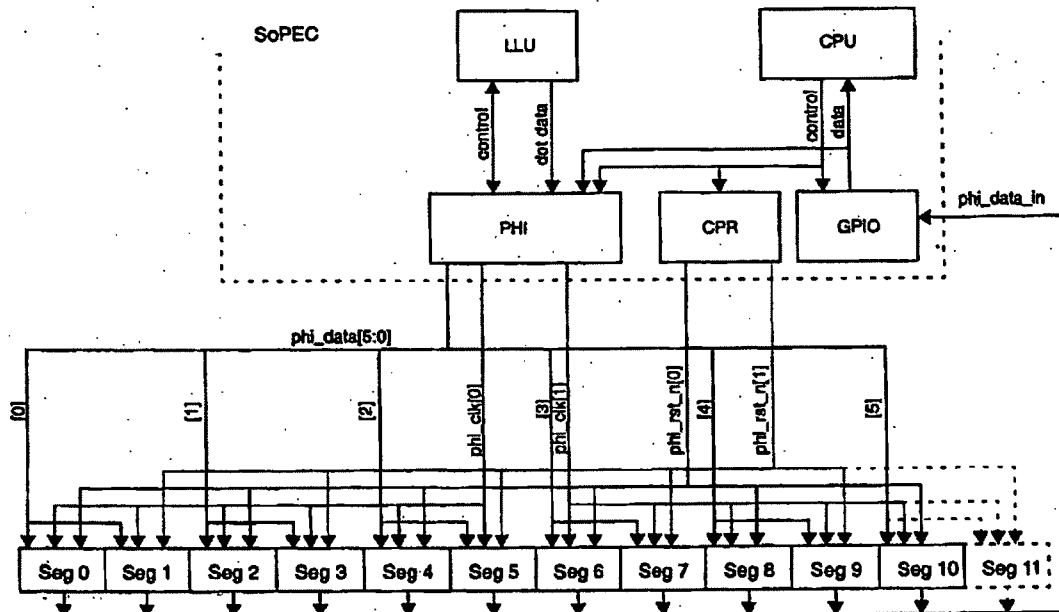


FIG. 288

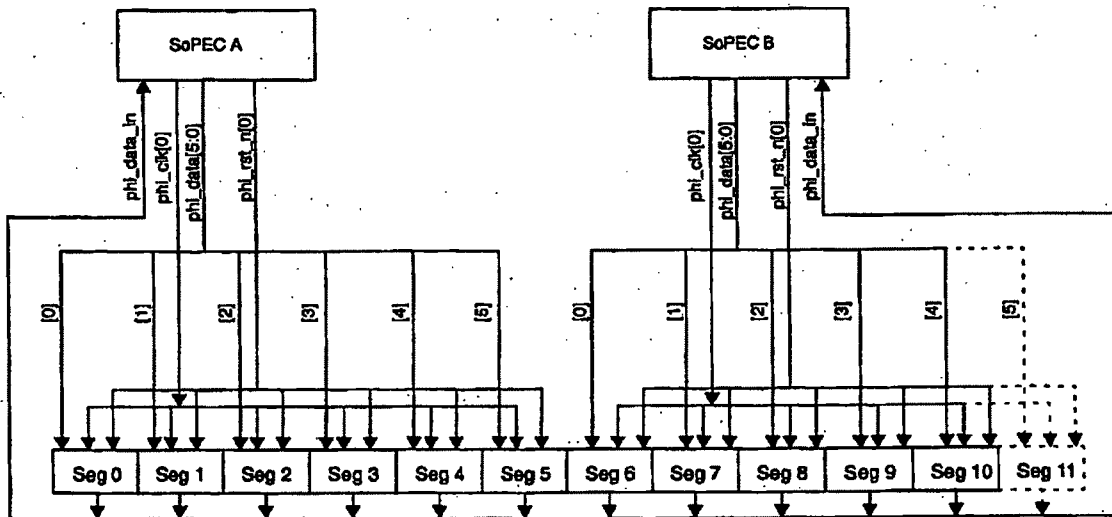


FIG. 289

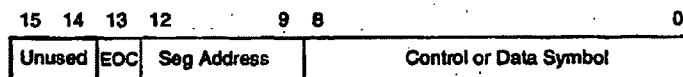
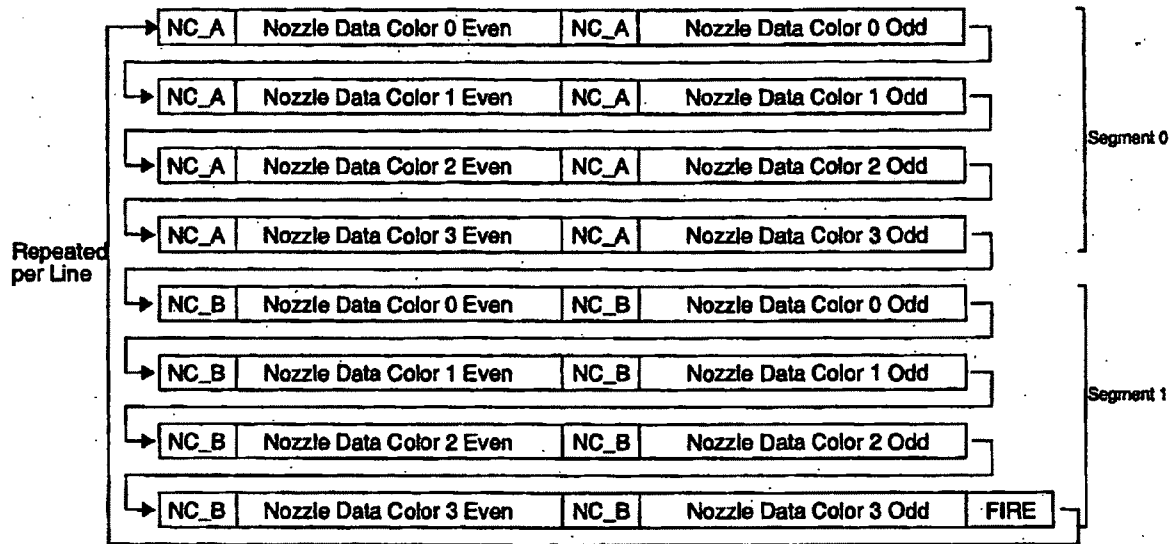


FIG. 290



FIRE Fire and Line sync Command

NC Next Color Command (A or B)

Example transfer sequence with *MaxSegment=1* and *MaxColor=3*.

FIG. 291

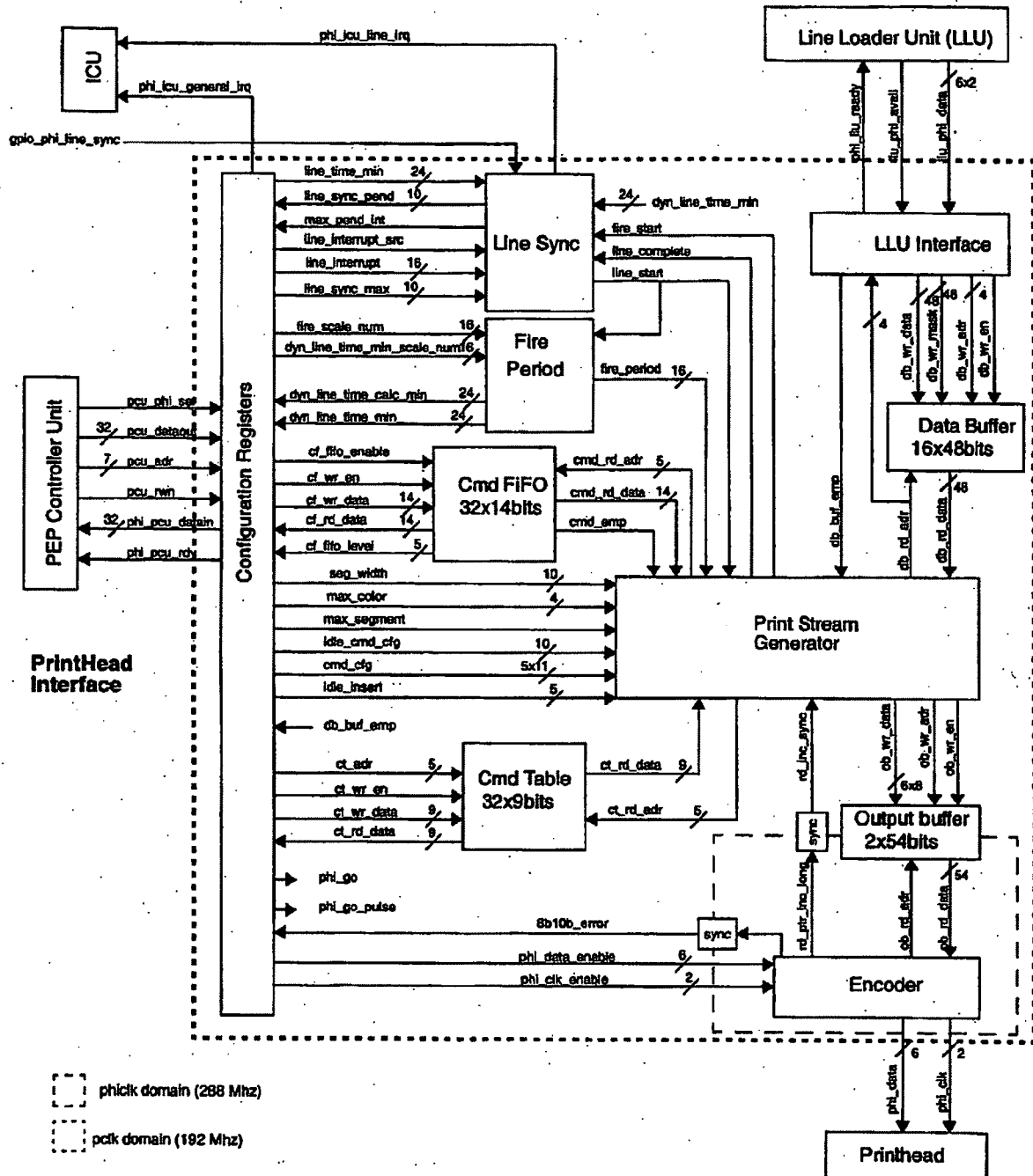


FIG. 292

Machine remains in same state by default
All outputs are zero unless otherwise stated

State Description:

Wait: Wait for line start

NCCmd: Generate NC_A/B (next color) command

NozzleData: Transmit Nozzle Data

Fire: Generate Fire command

IdleInsert: Insert idle characters

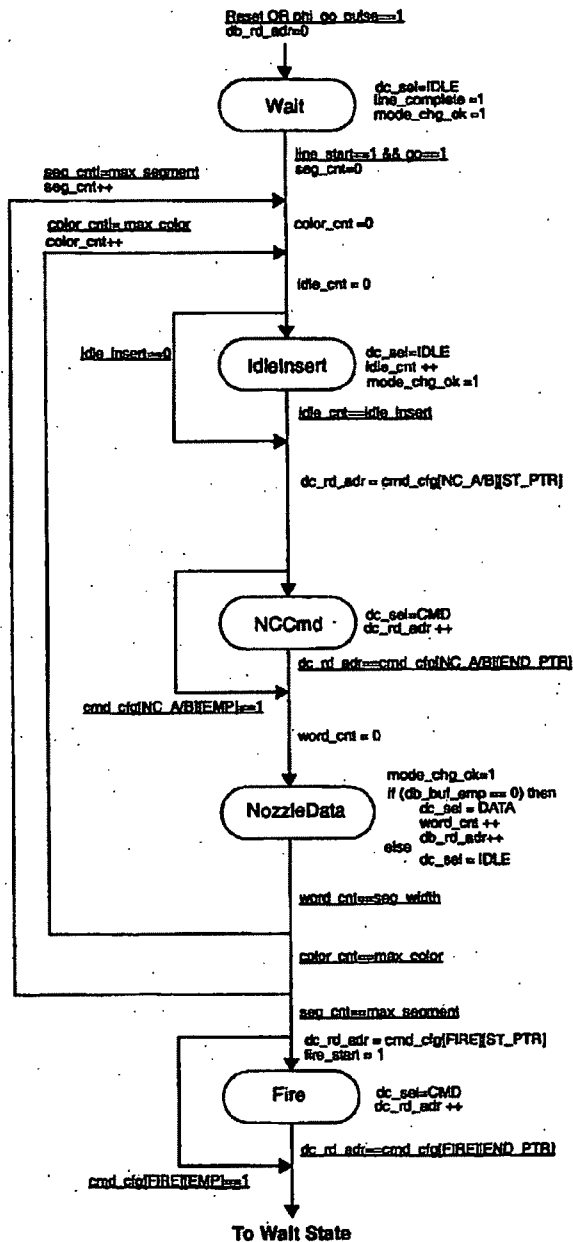


FIG. 293

175/223

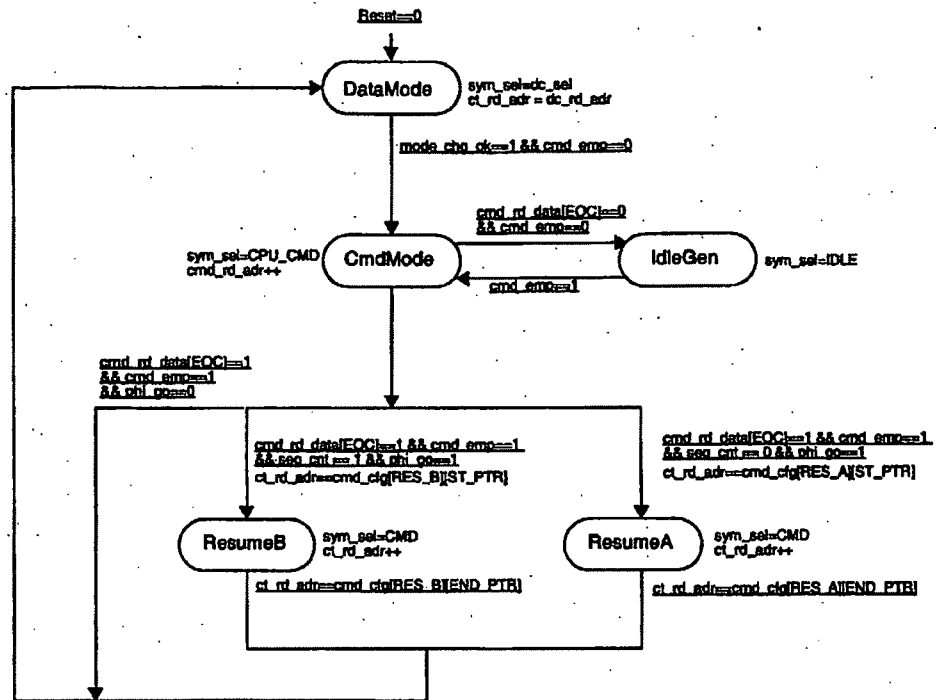
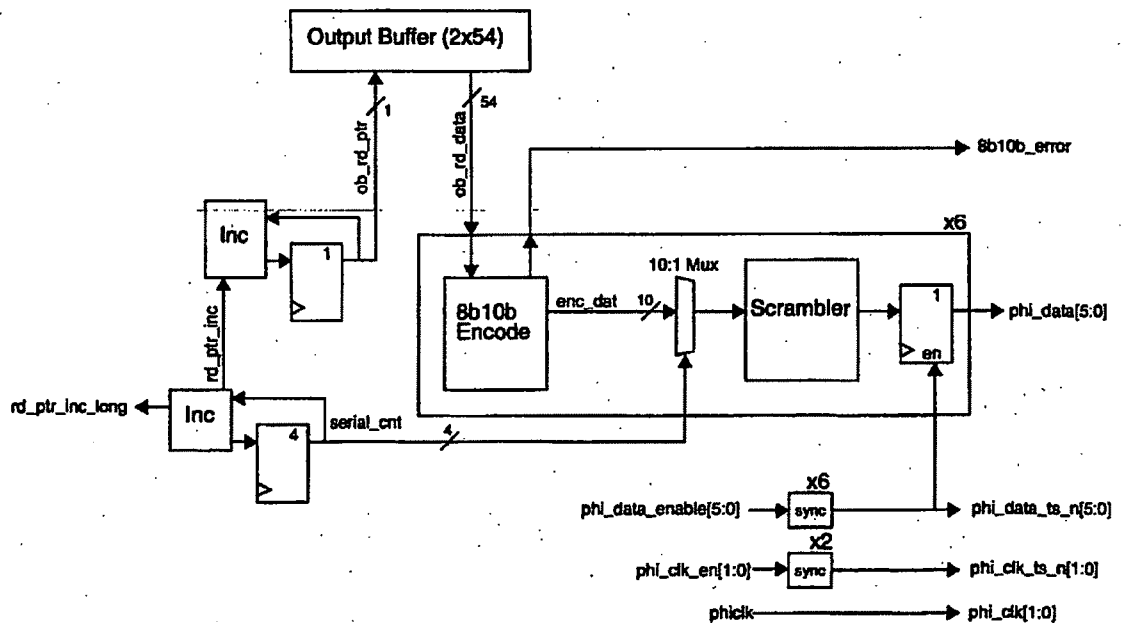


FIG. 294



Note: All logic clocked on phiclk

FIG. 295

176/223

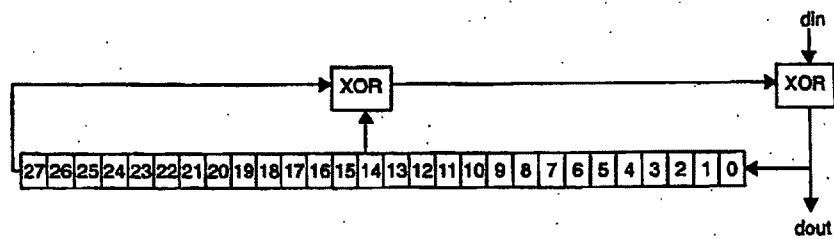


FIG. 296

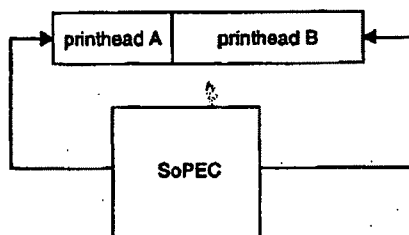


FIG. 297

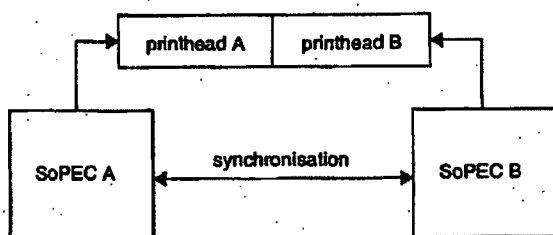


FIG. 298

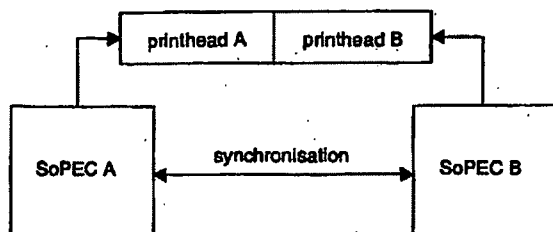


FIG. 299

177/223

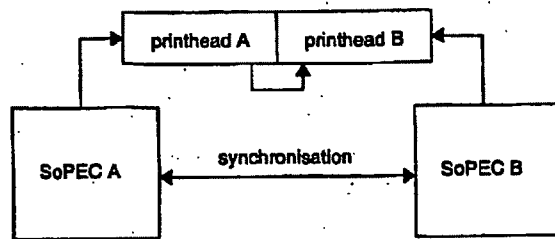


FIG. 300

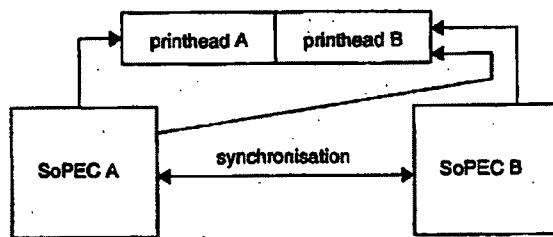


FIG. 301

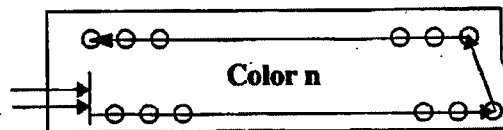


FIG. 302

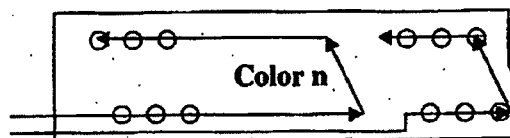


FIG. 303

178/223

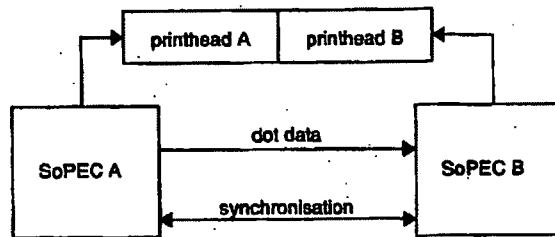


FIG. 304

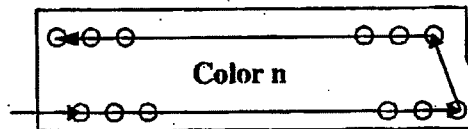


FIG. 305

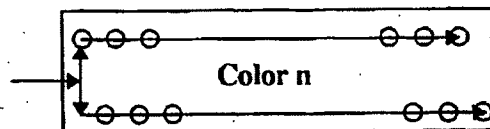


FIG. 306

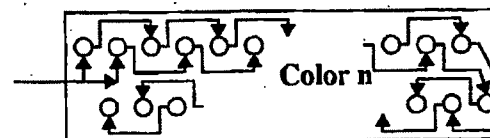


FIG. 307



FIG. 308

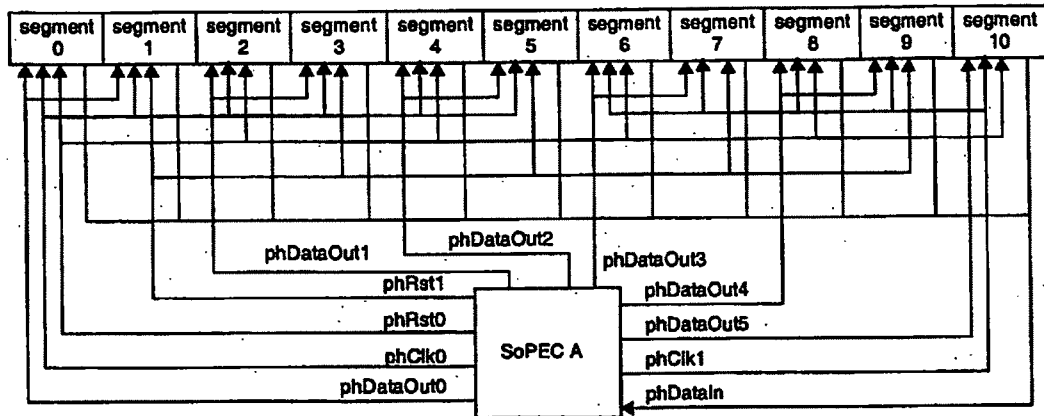


FIG. 309

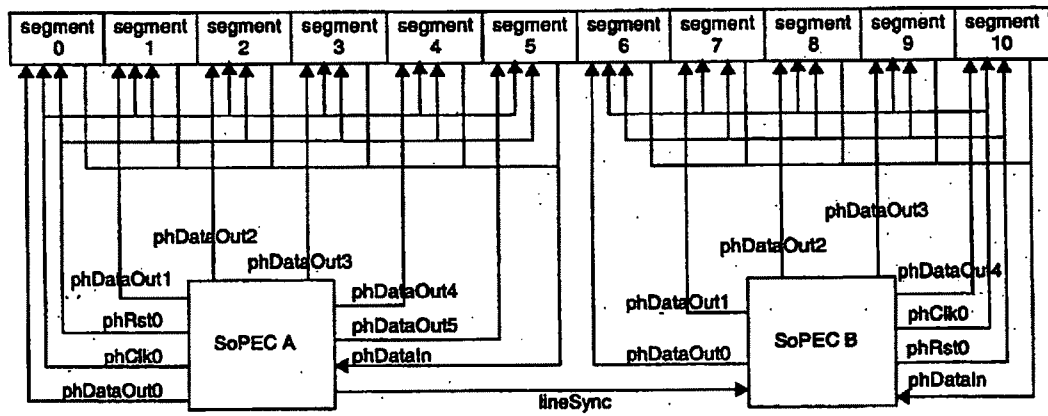


FIG. 310

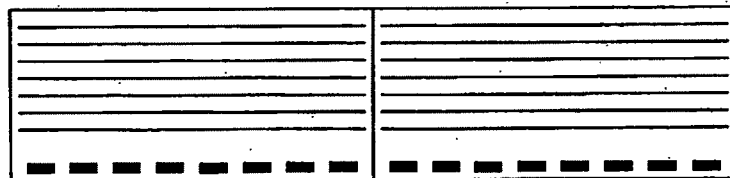


FIG. 311

180/223

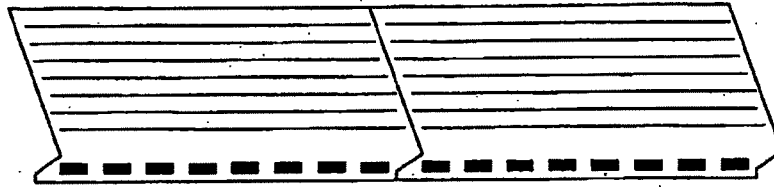


FIG. 312

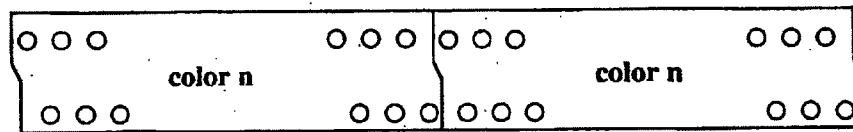


FIG. 313

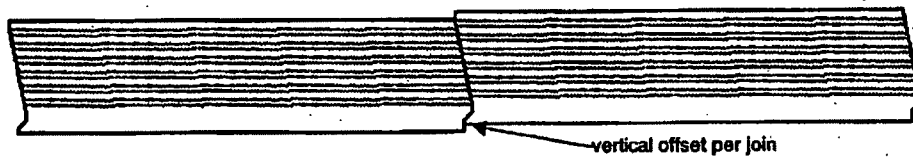


FIG. 314

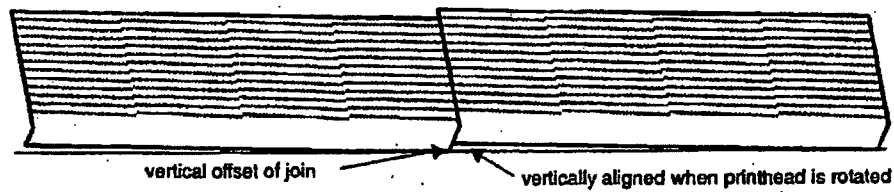


FIG. 315



FIG. 316

181/223

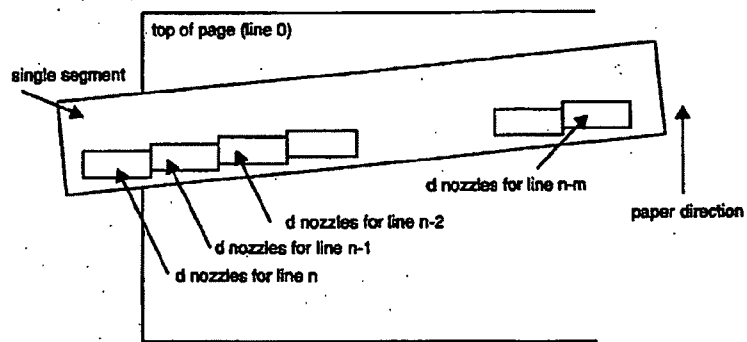


FIG. 317



FIG. 318

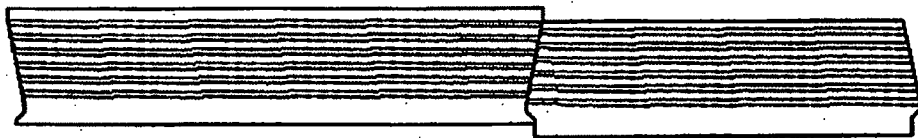


FIG. 319



FIG. 320



FIG. 321

182/223

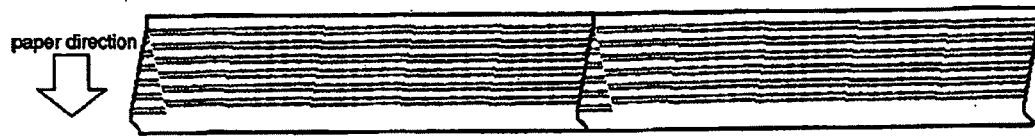


FIG. 322

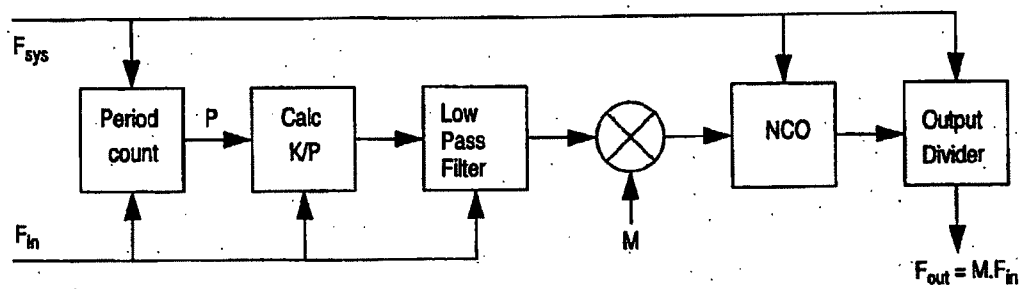


FIG. 323

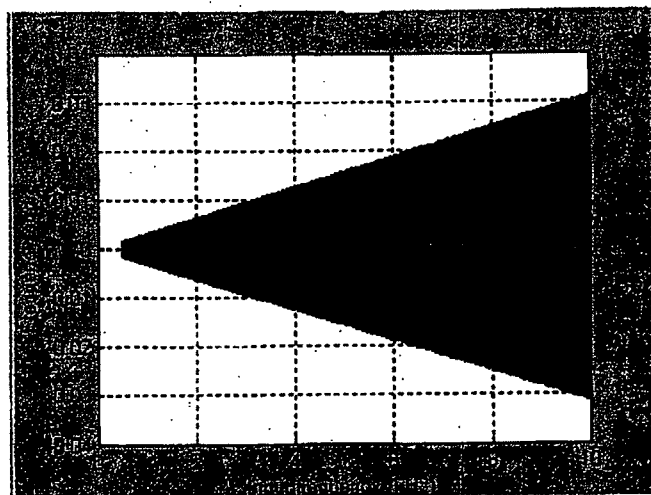


FIG. 324

183/223

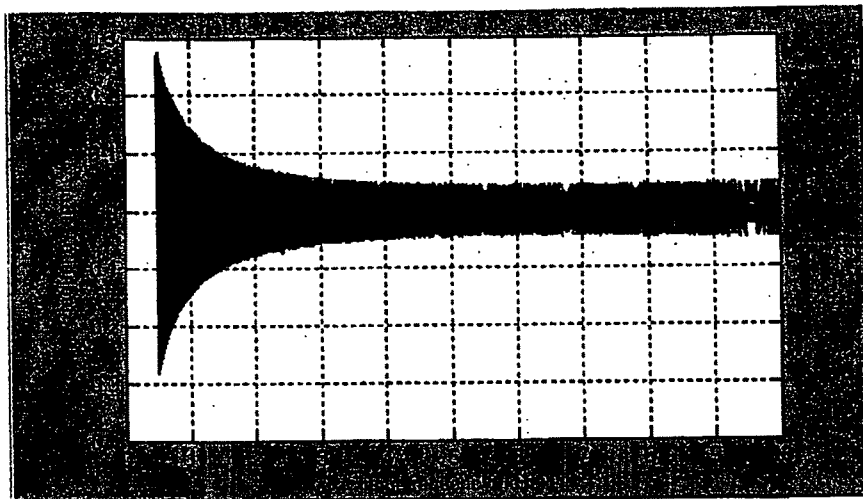


FIG. 325

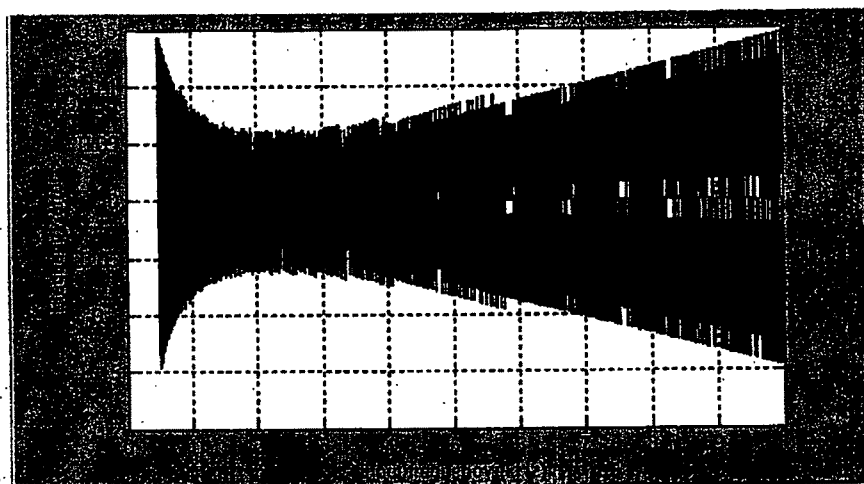


FIG. 326

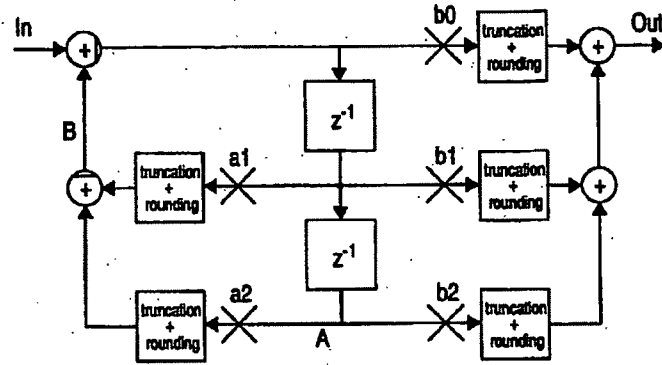


FIG. 327

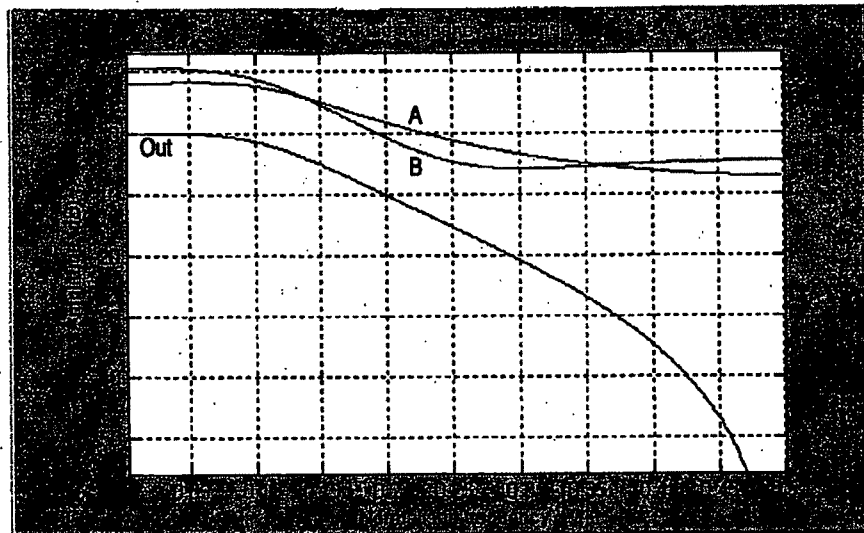


FIG. 328

185/223

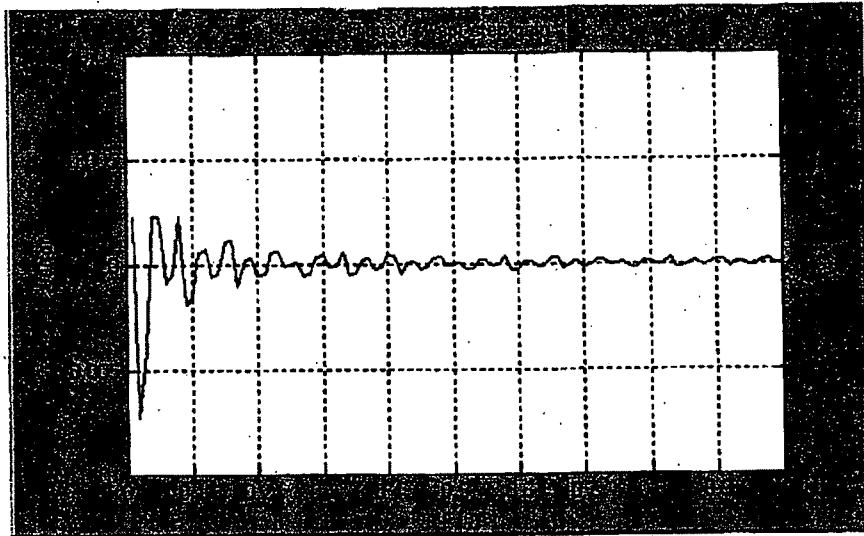


FIG. 329

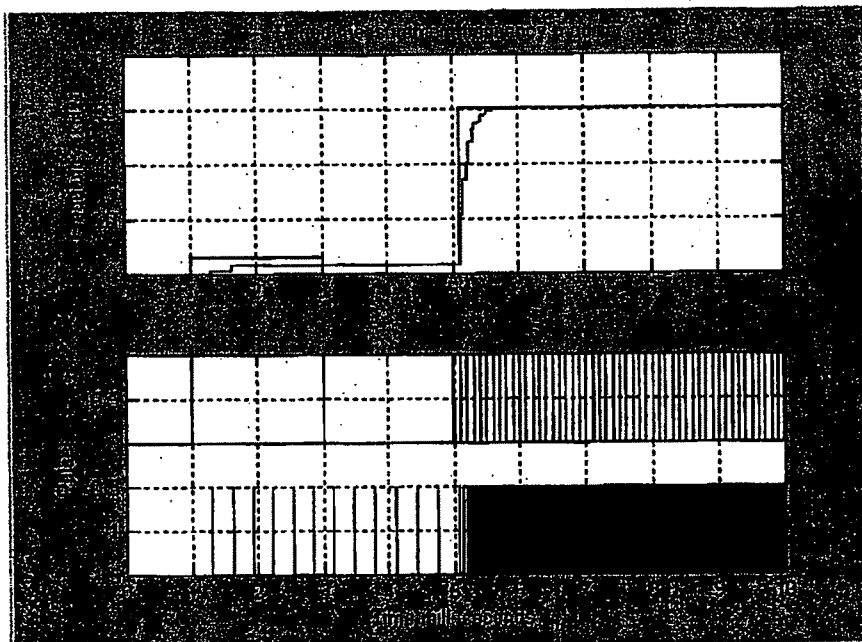


FIG. 330

186/223

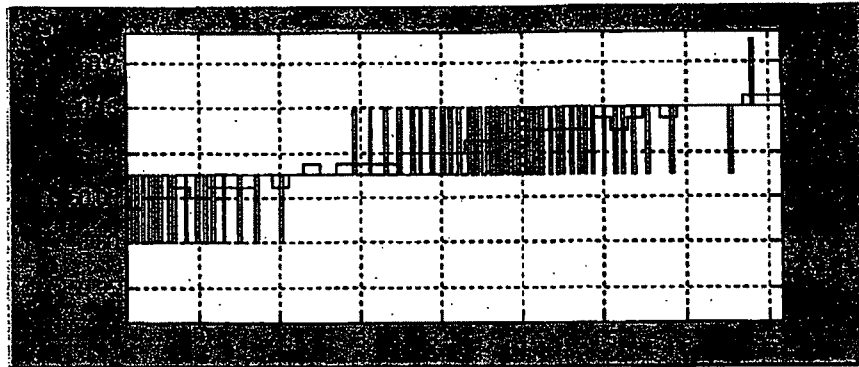


FIG. 331

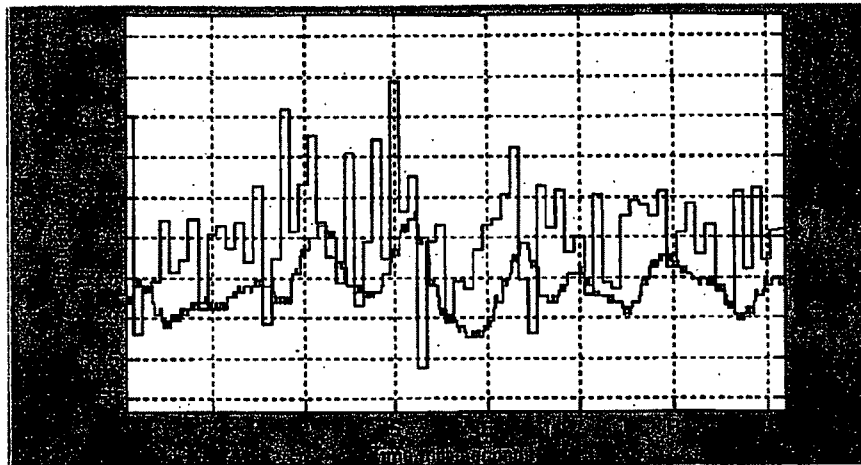


FIG. 332

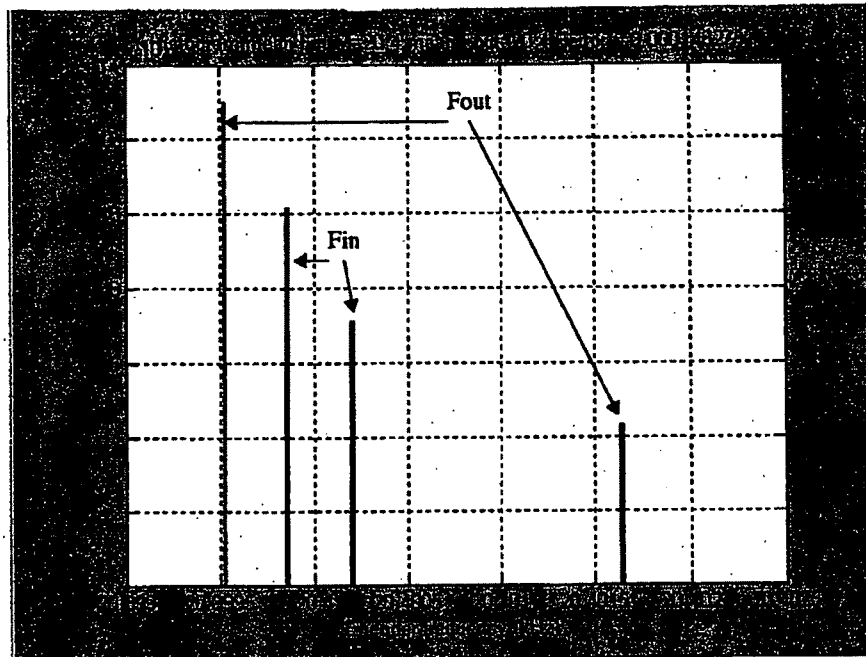


FIG. 333

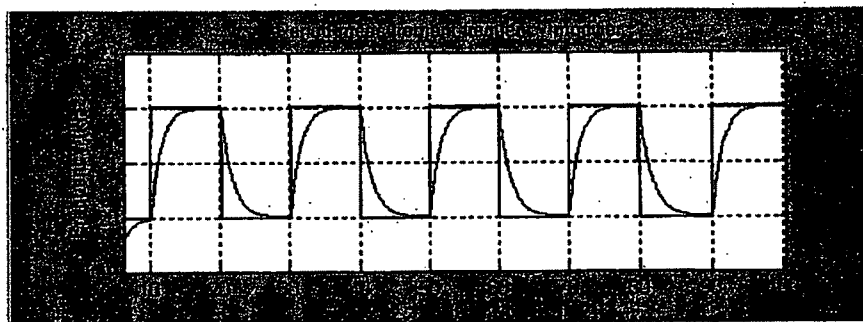


FIG. 334

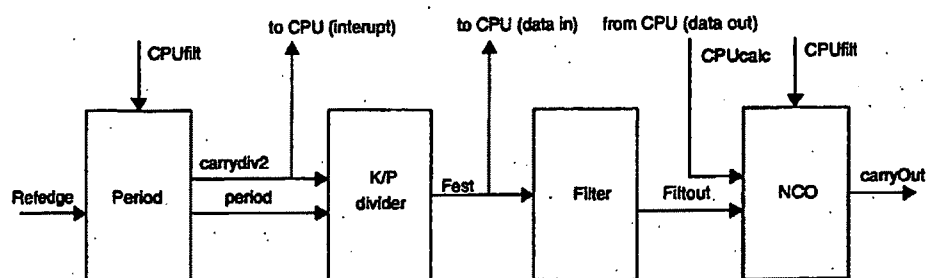


FIG. 335

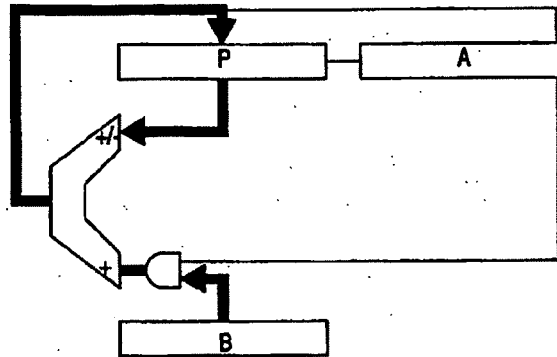


FIG. 336

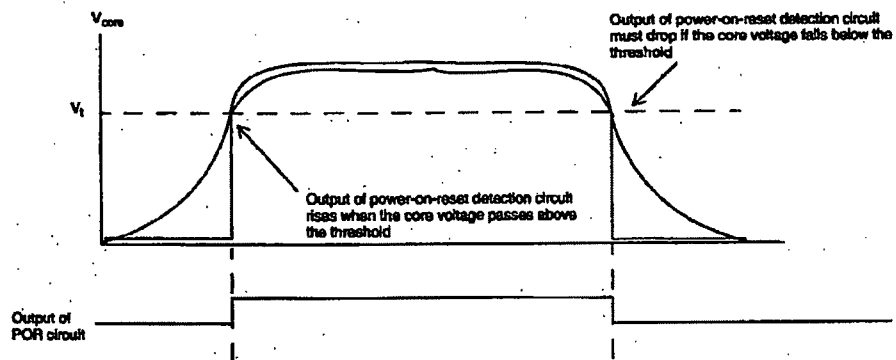


FIG. 337

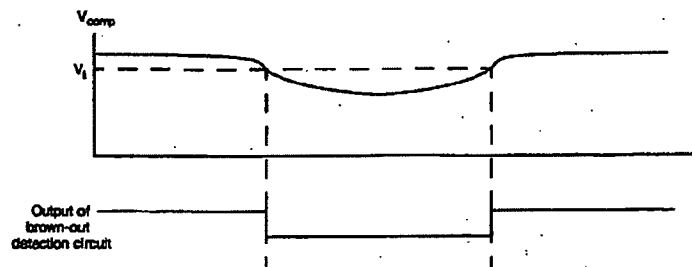


FIG. 338

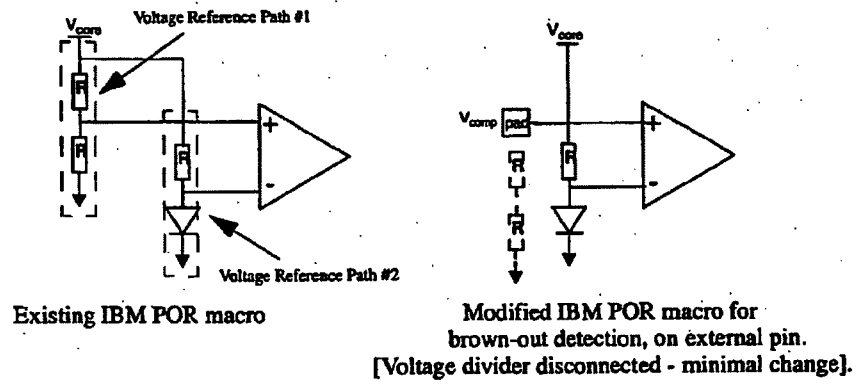


FIG. 339

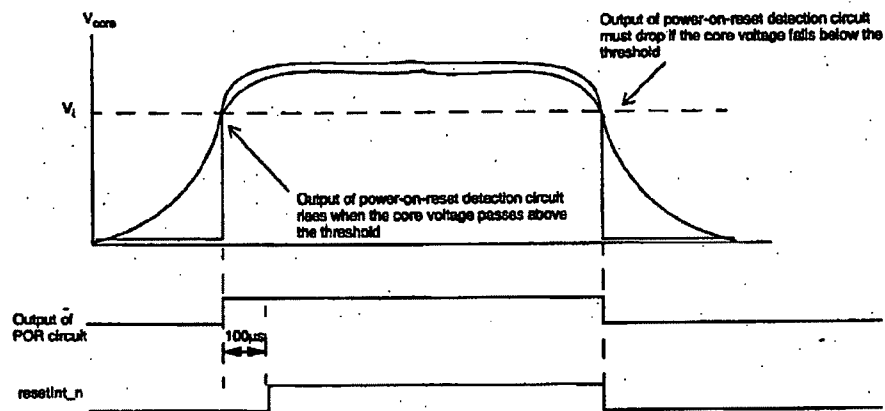


FIG. 340

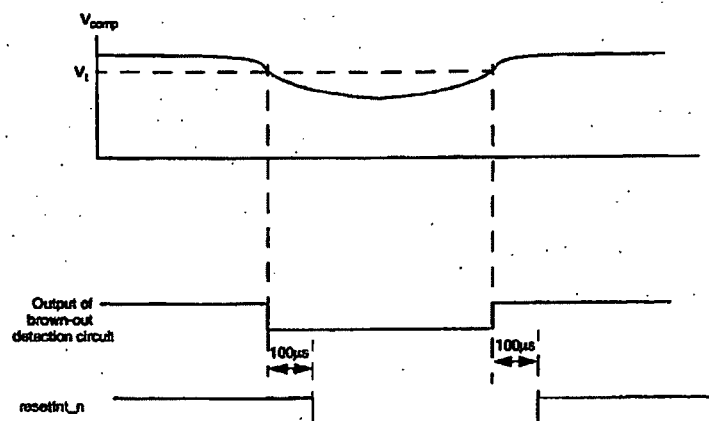


FIG. 341

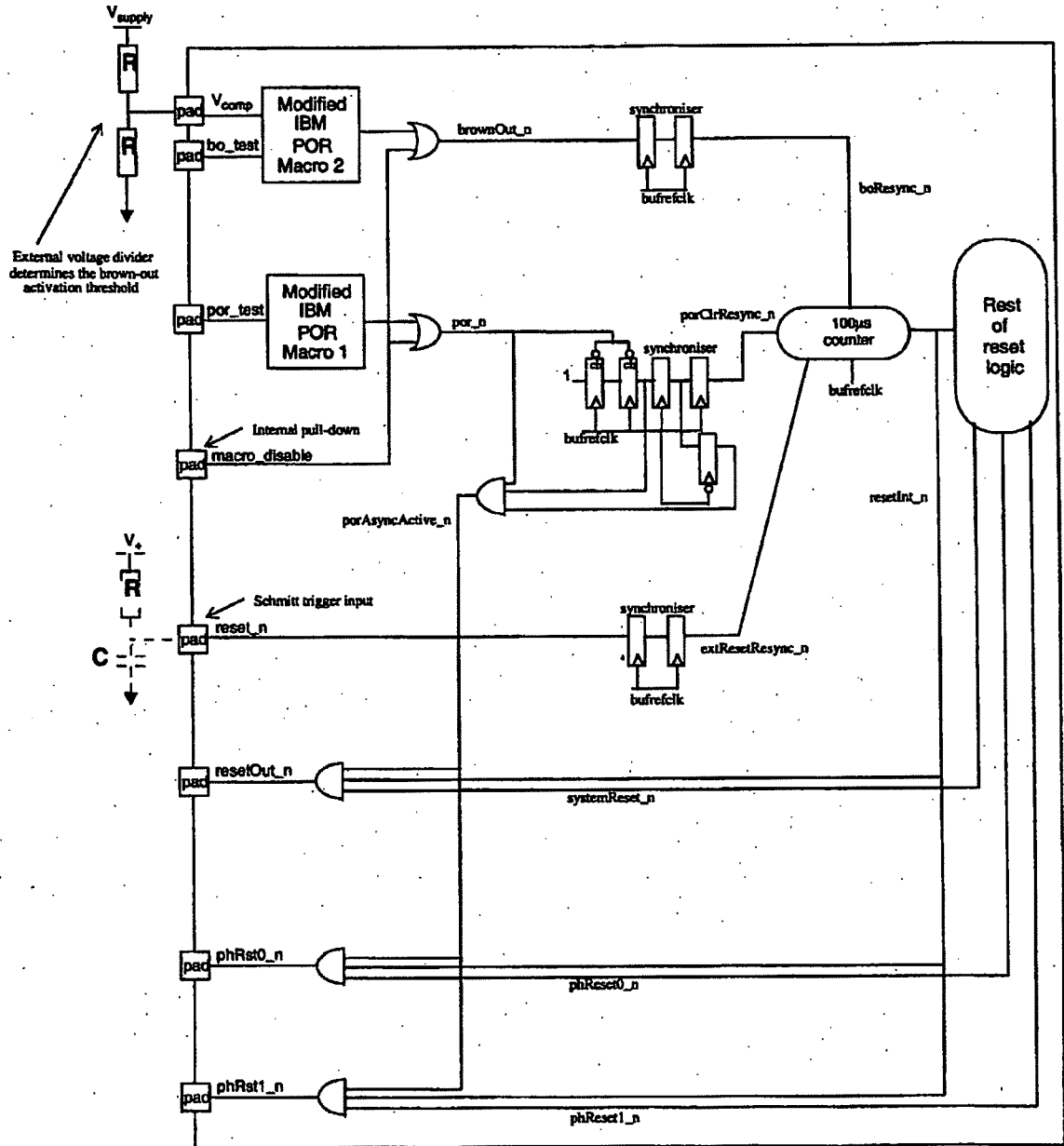


FIG. 342

191/223

Length
Load Address
Run Address
Data (Second Stage Loader)

FIG. 343

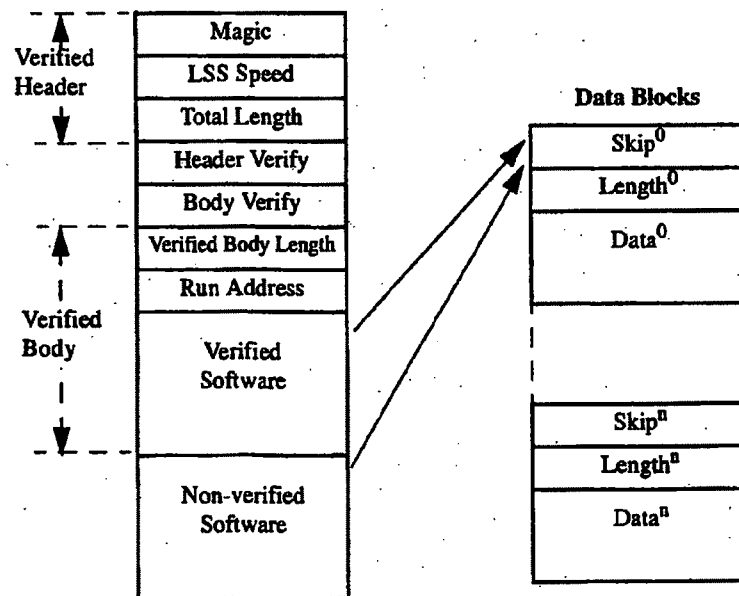


FIG. 344

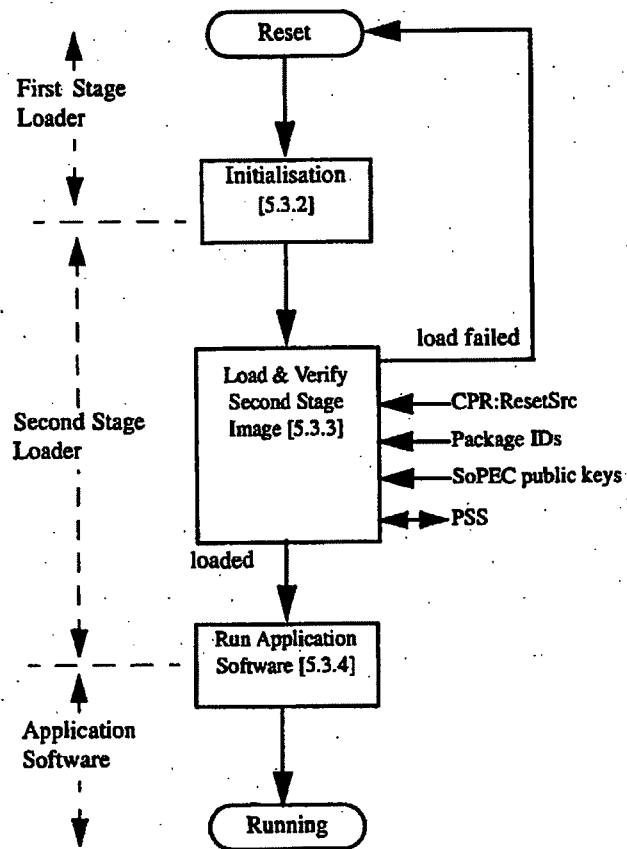


FIG. 345

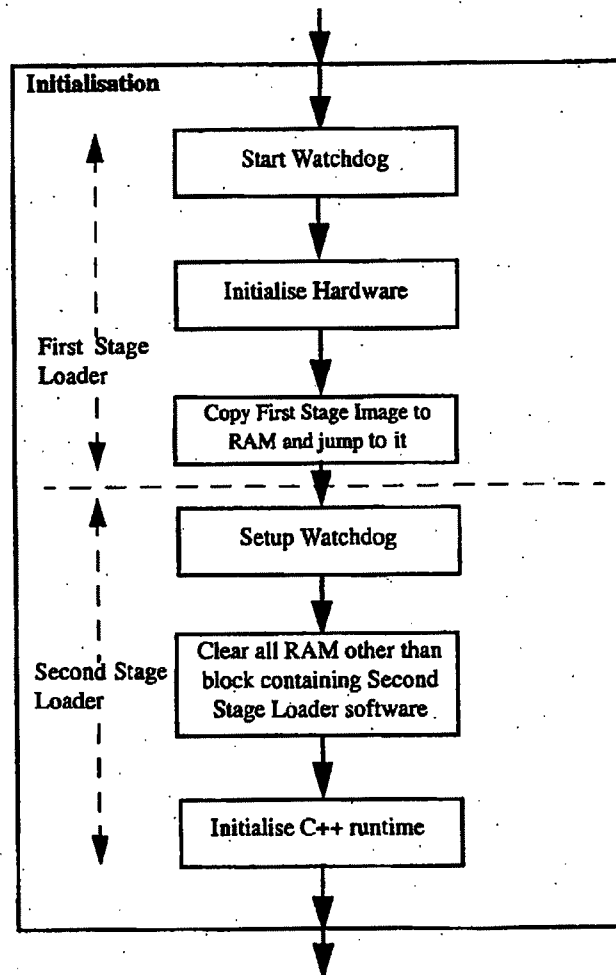


FIG. 346

194/223

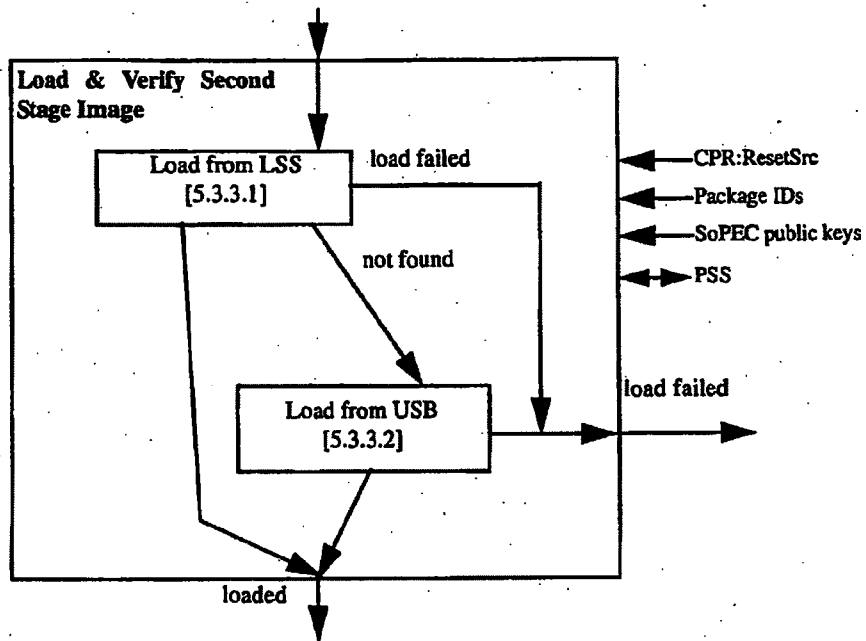


FIG. 347

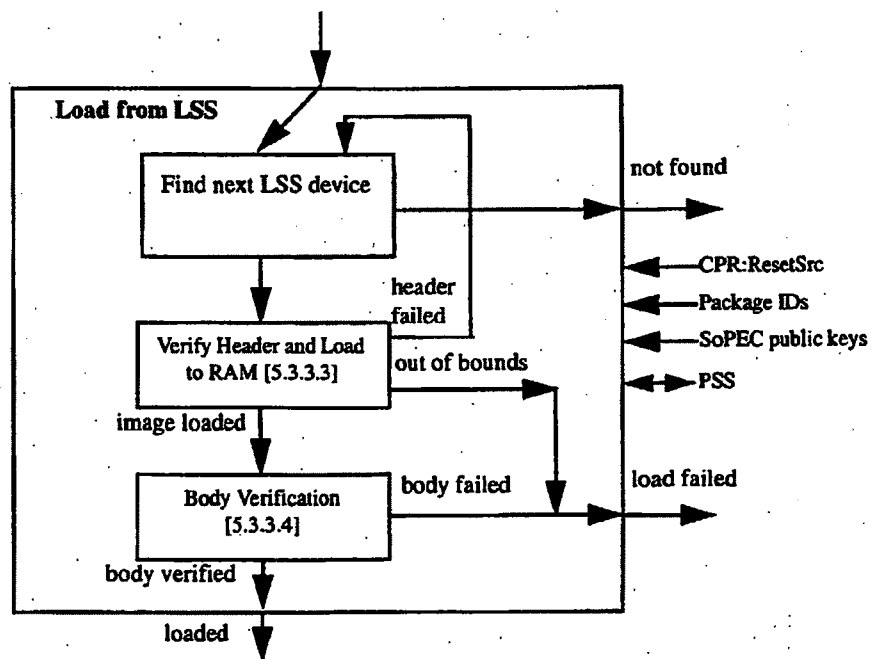


FIG. 348

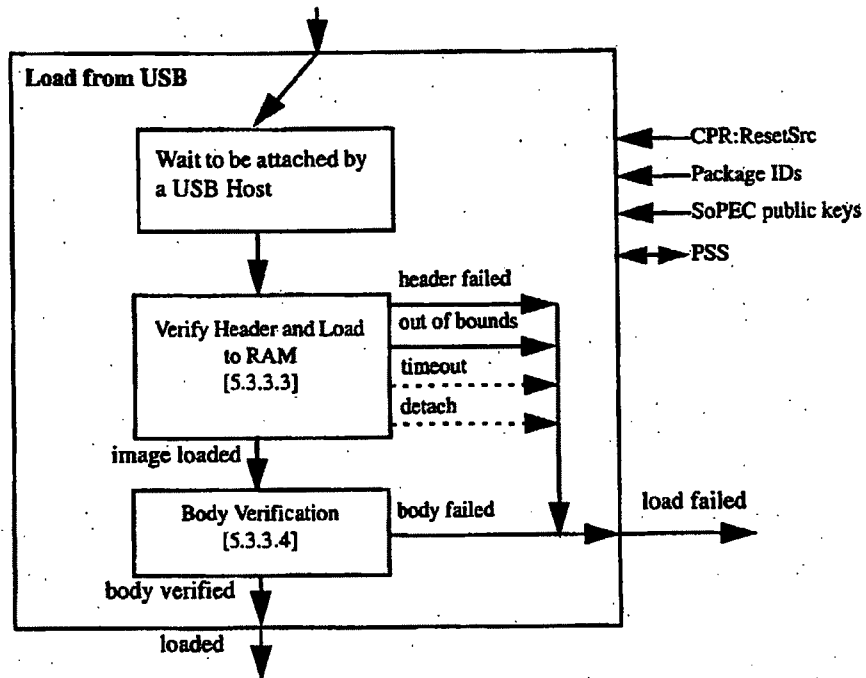


FIG. 349

196/223

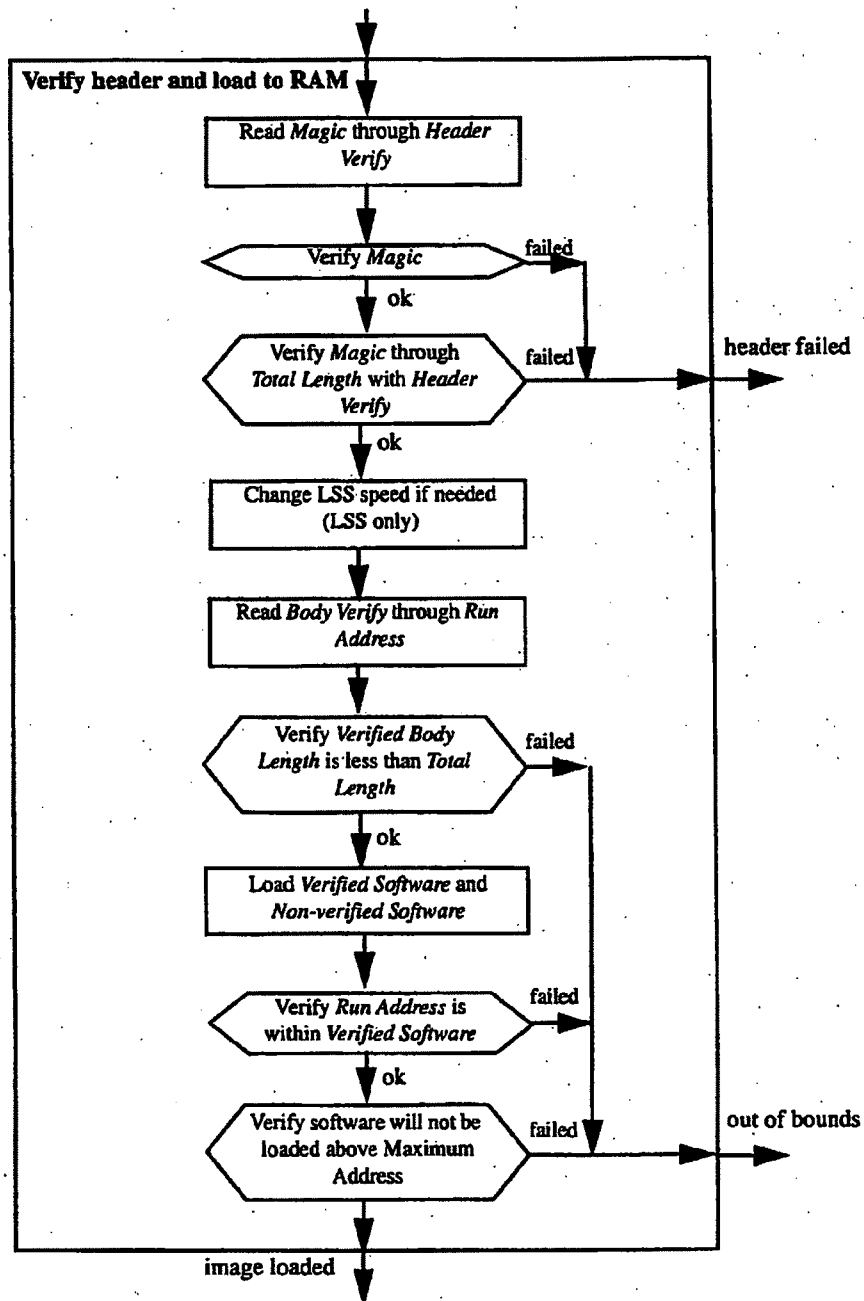


FIG. 350

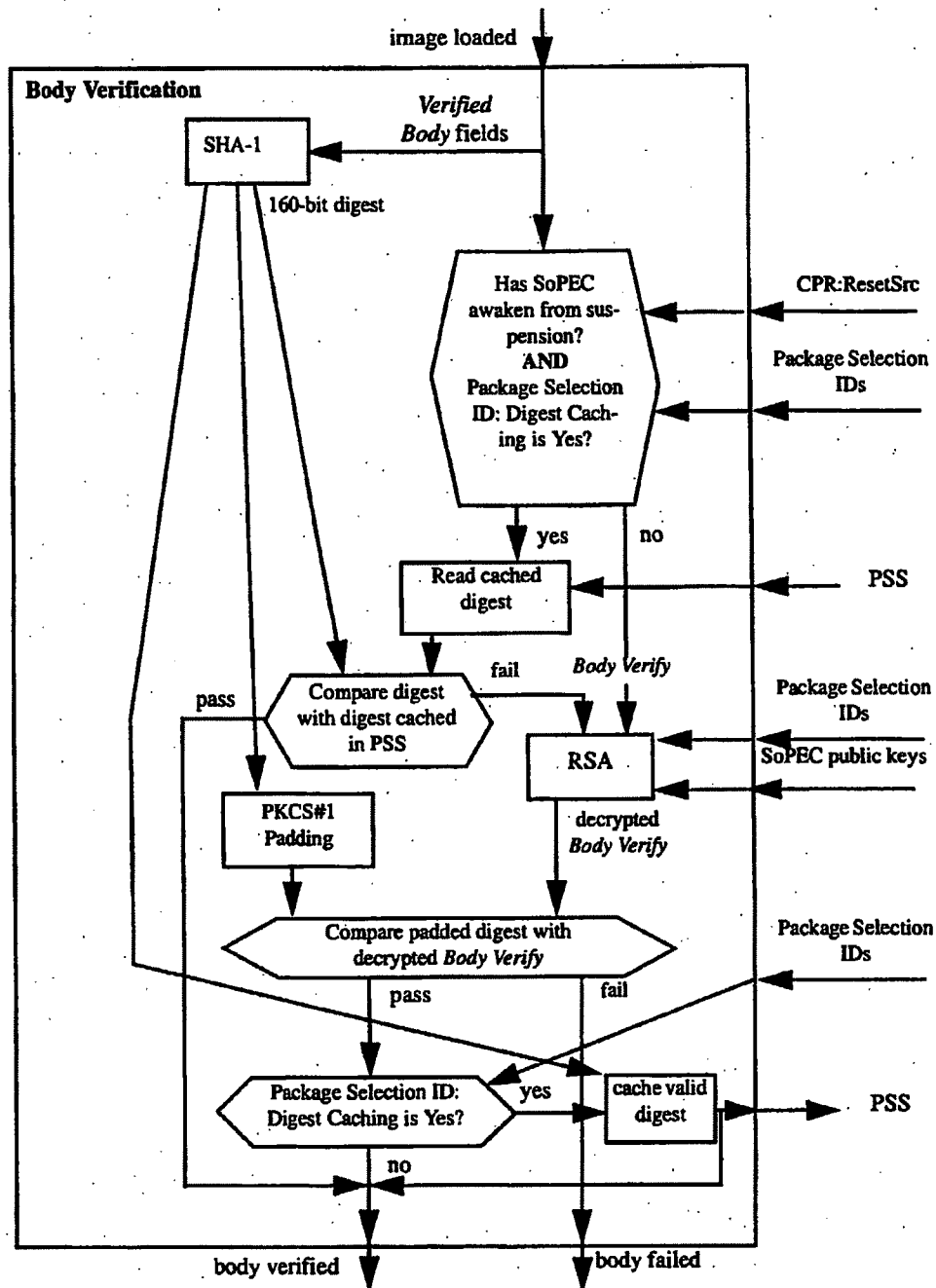


FIG. 351

198/223

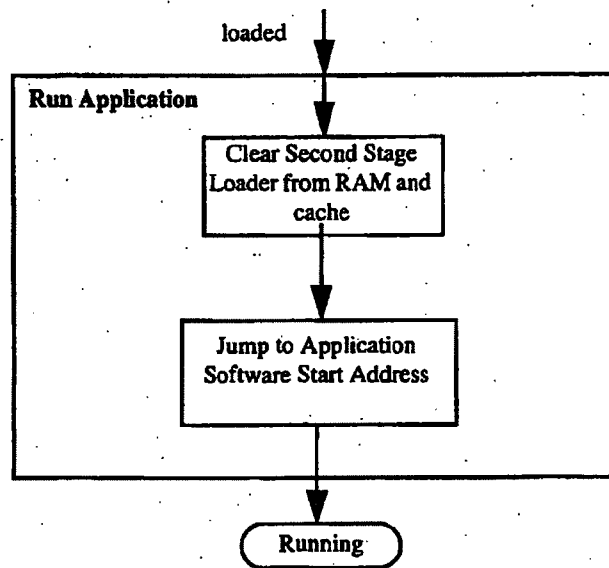


FIG. 352

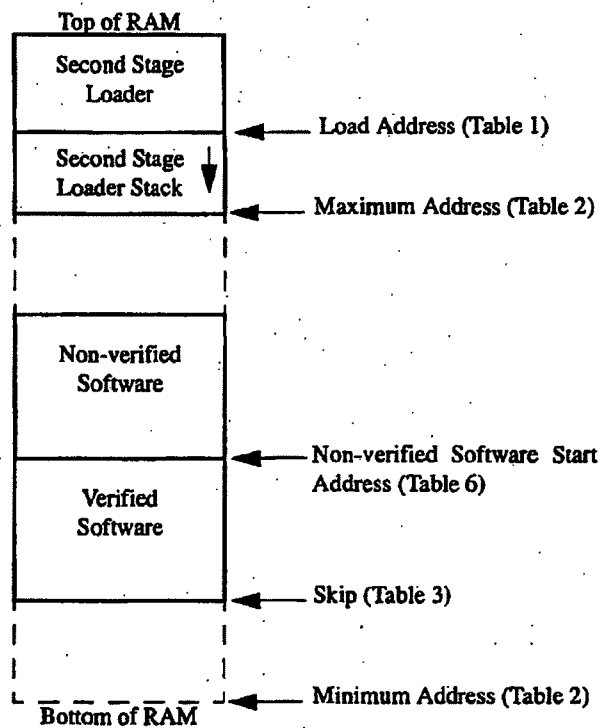


FIG. 353

199/223

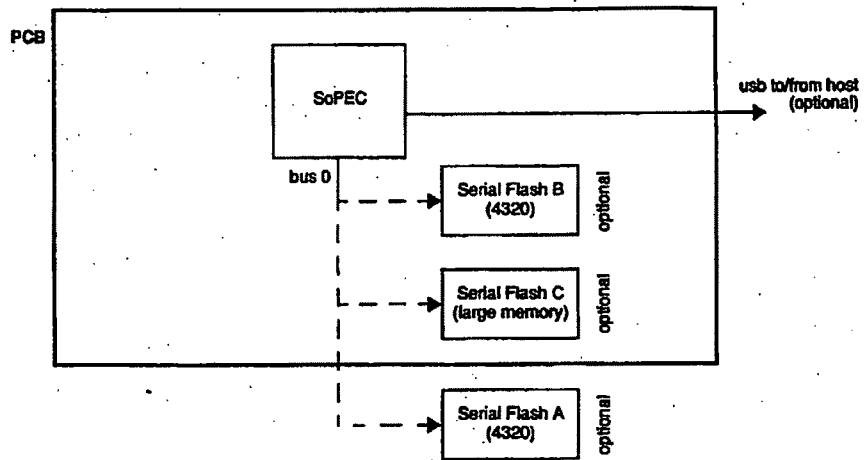


FIG. 354

200/223

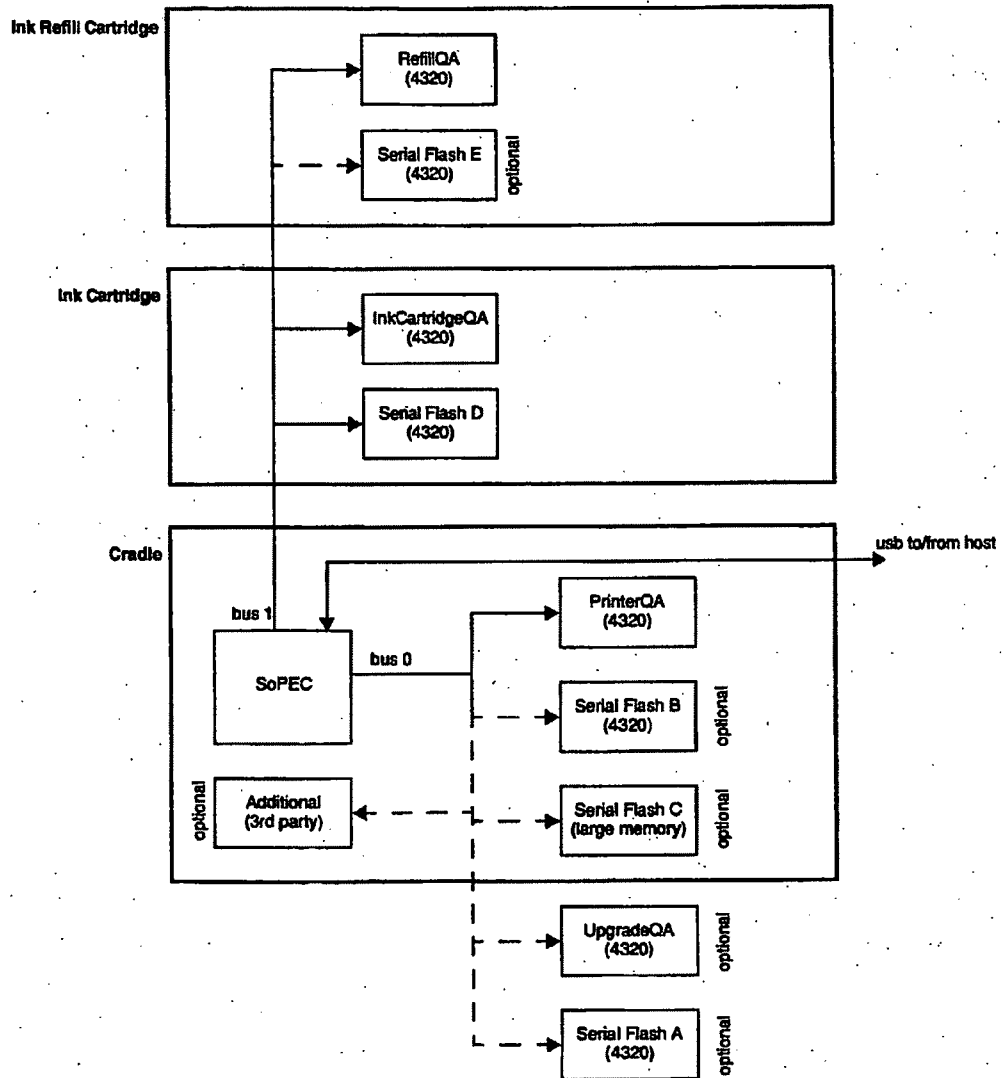


FIG. 355

201/223

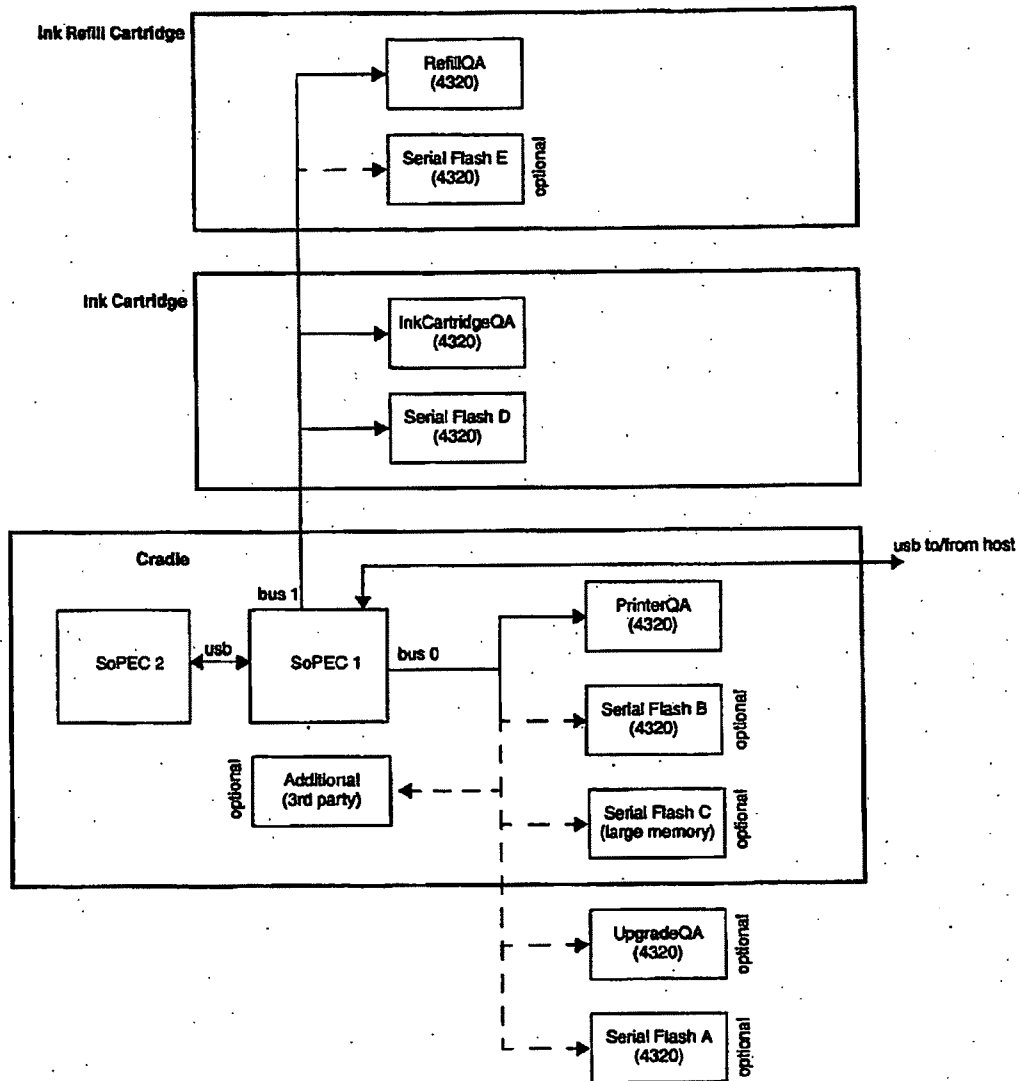


FIG. 356

202/223

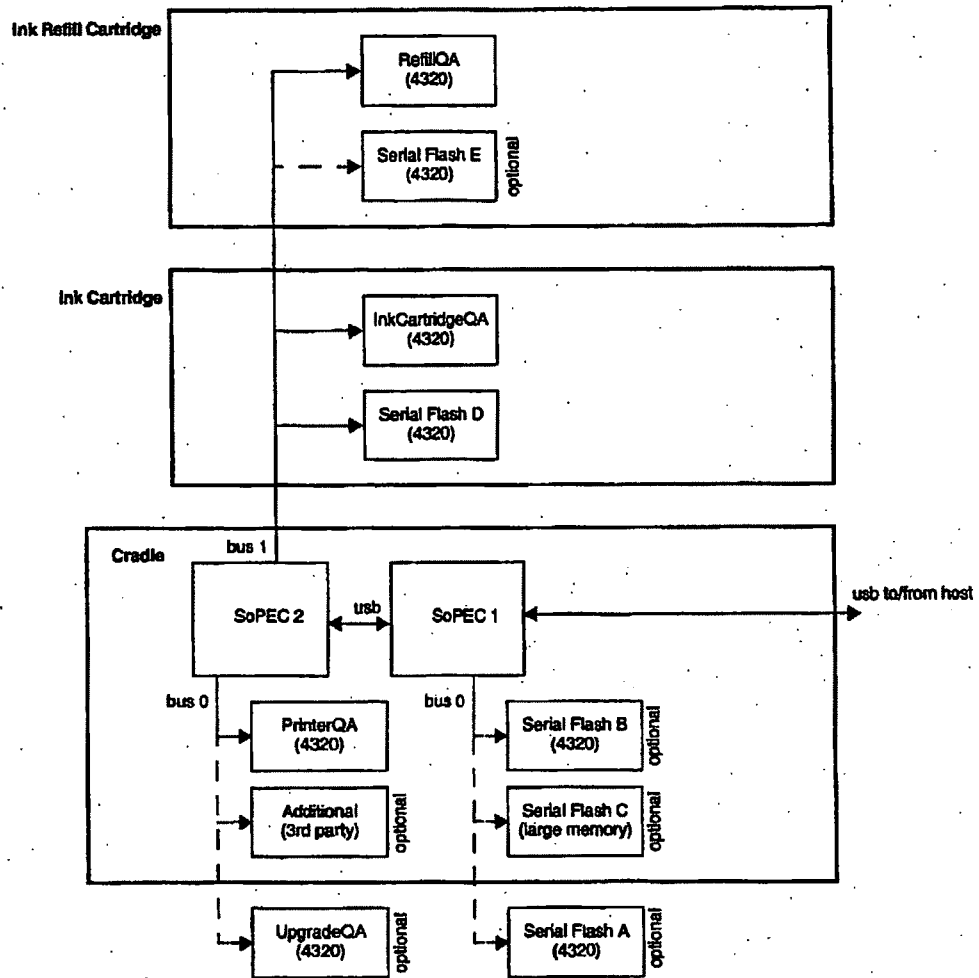


FIG. 357

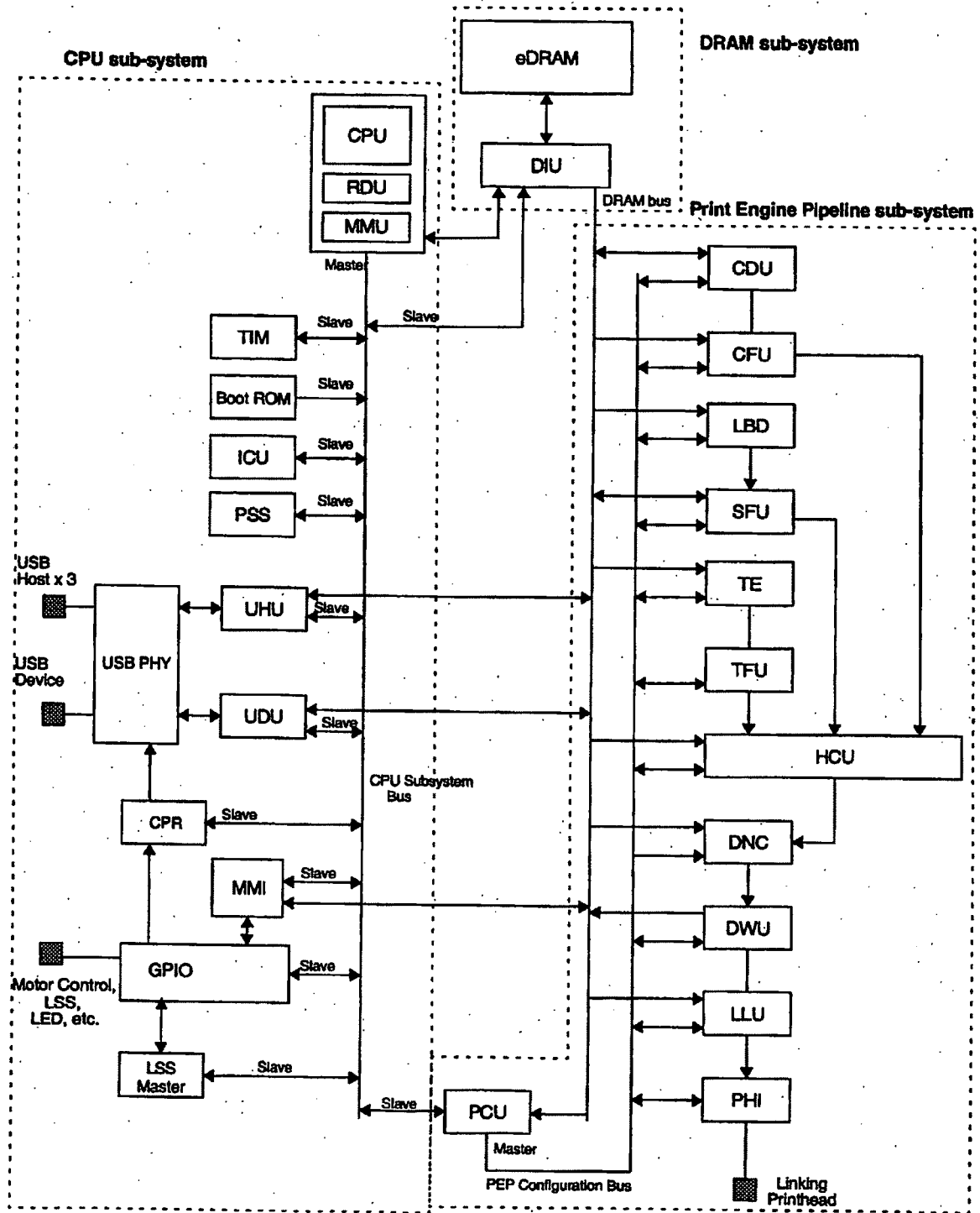


FIG. 358

204/223

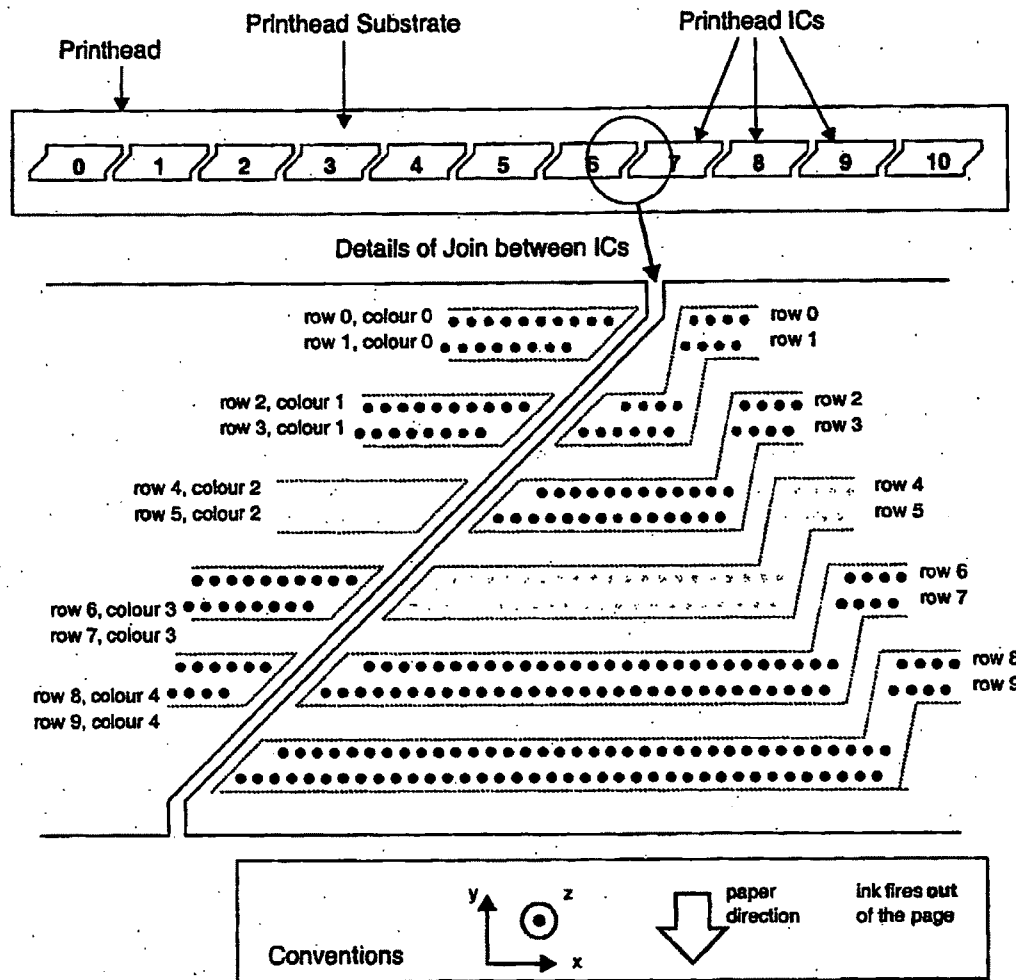


FIG. 359

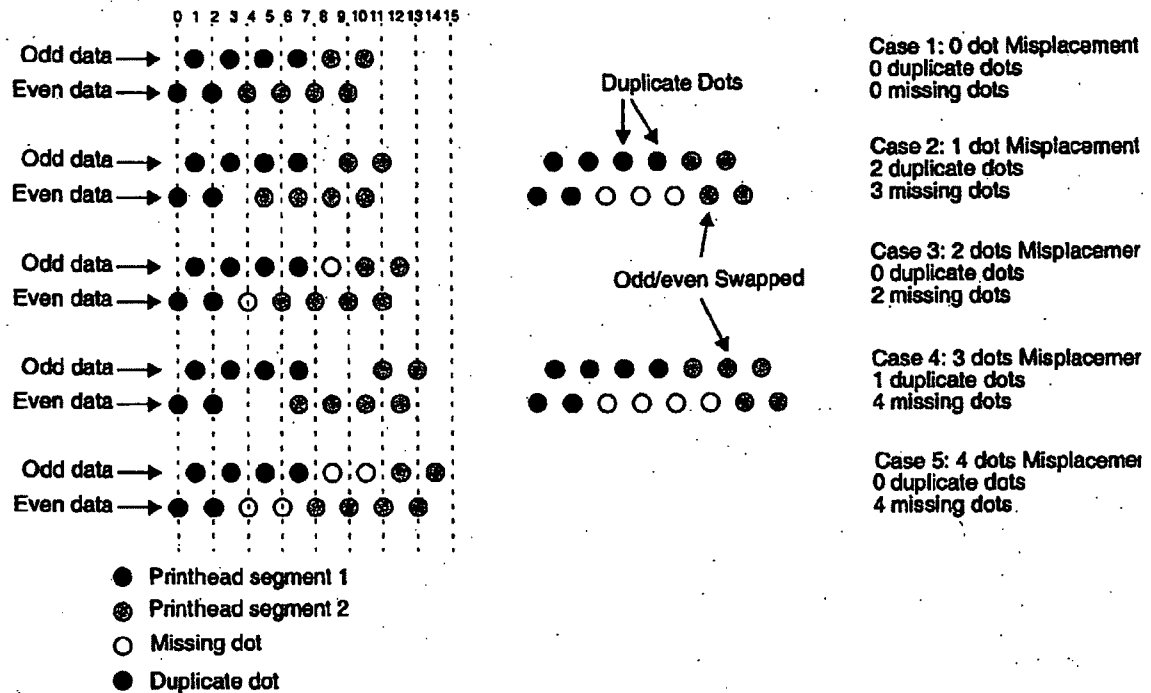


FIG. 360

Row Number	Default Firing Order	Relative Row position in line-pitches
0	1	0
1	6	3.5
2	2	10.1
3	7	13.6
4	3	20.2
5	8	23.7
6	4	30.3
7	9	33.8
8	5	40.4
9	10	43.9

FIG. 361

206/223

Firing Order	Row position	Adjusted Firing Order	Row position relative to ideal segment row 0
1	0	4	0.3
6	3.5	9	3.8
2	10.1	5	10.4
7	13.6	10	13.9
3	20.2	6	20.5
8	23.7	1	24.0
4	30.3	7	30.6
9	33.8	2	34.1
5	40.4	8	40.7
10	43.9	3	44.2

Ideal segment

Segment misplaced by 0.3 line-pitches

FIG. 362

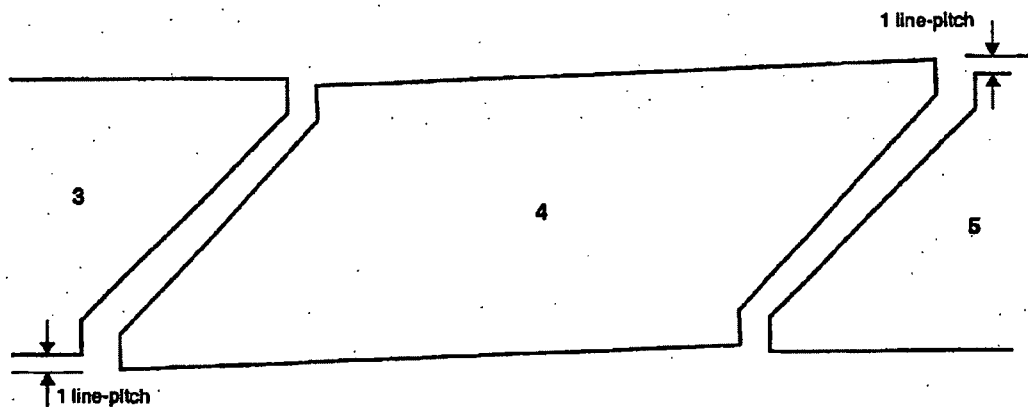


FIG. 363

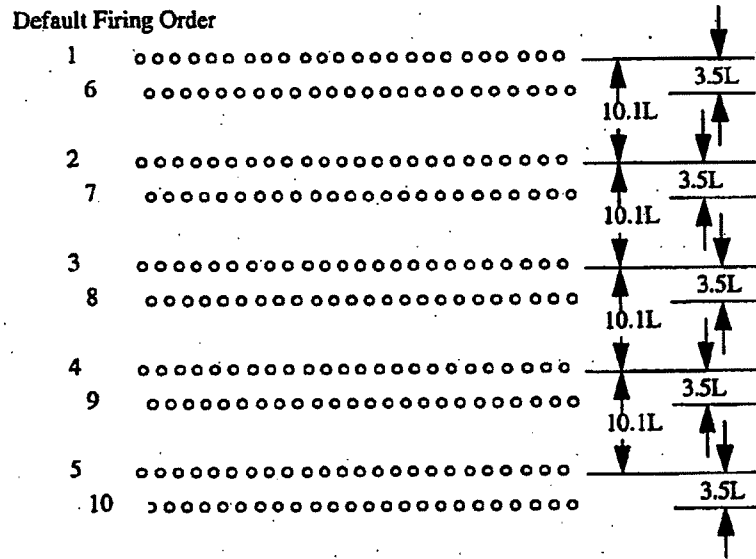


FIG. 364

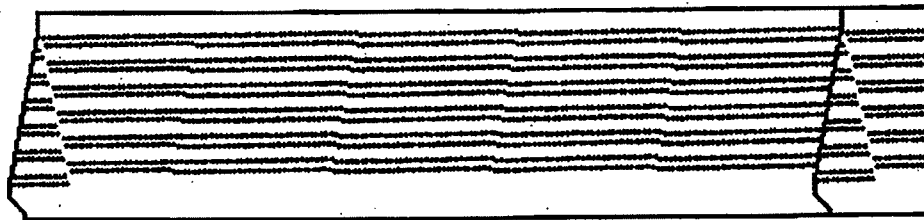


FIG. 365



FIG. 366

208/223

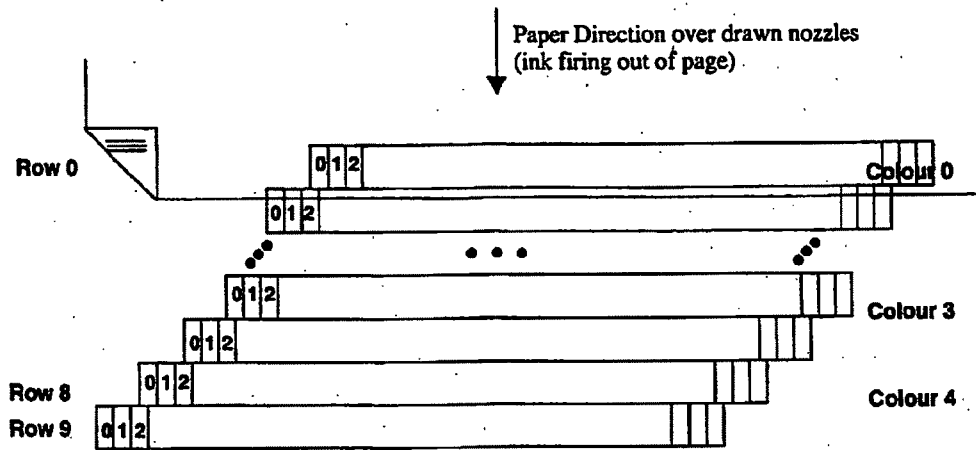


FIG. 367

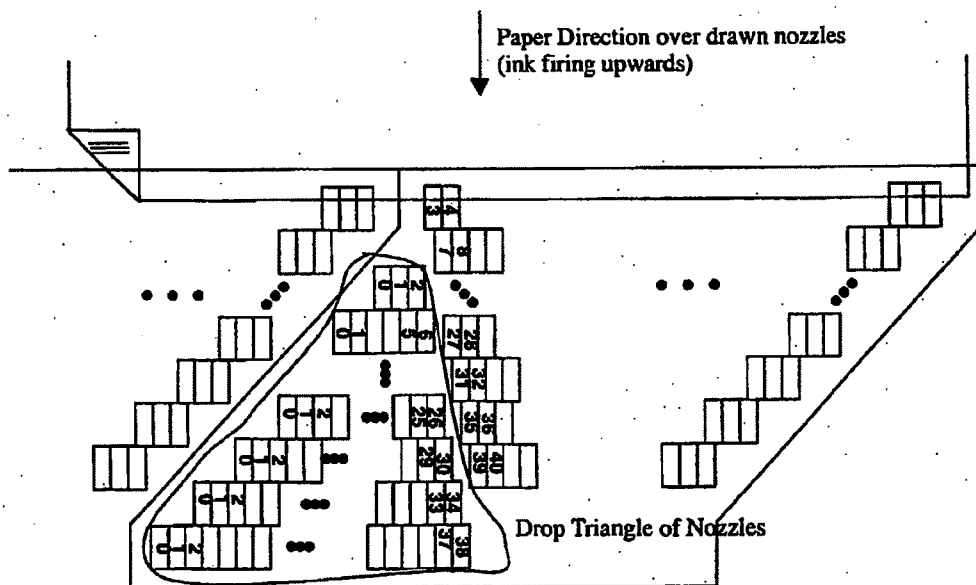


FIG. 368

209/223

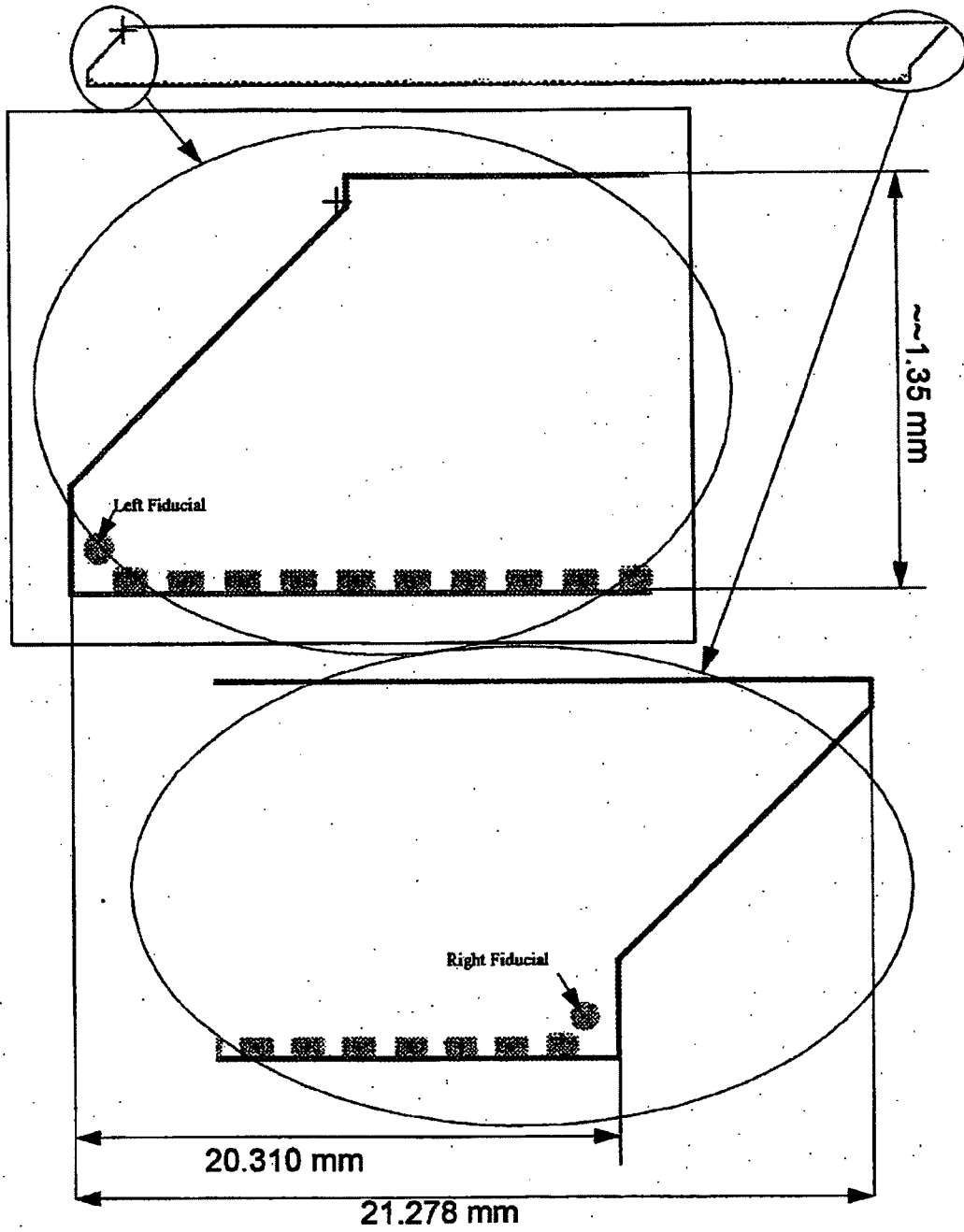


FIG. 369

210/223

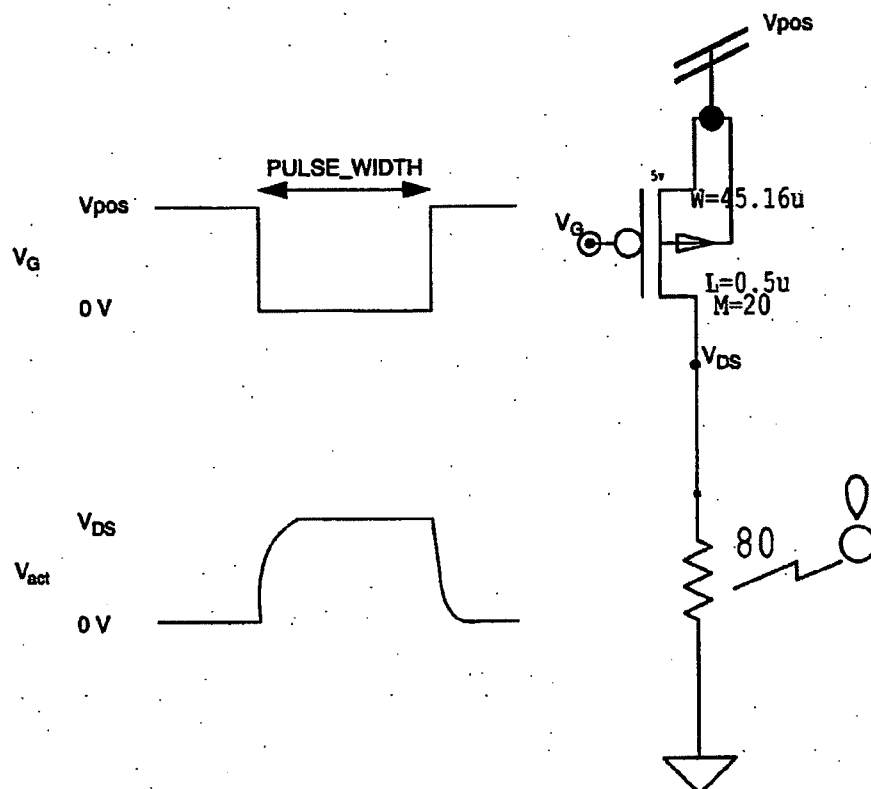


FIG. 370

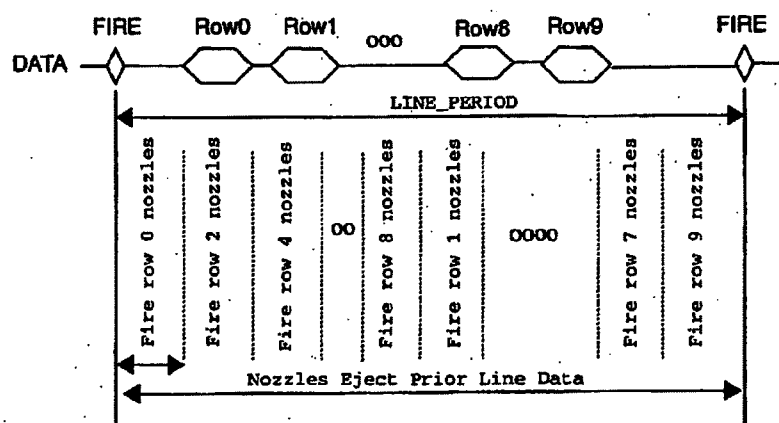


FIG. 371

211/223

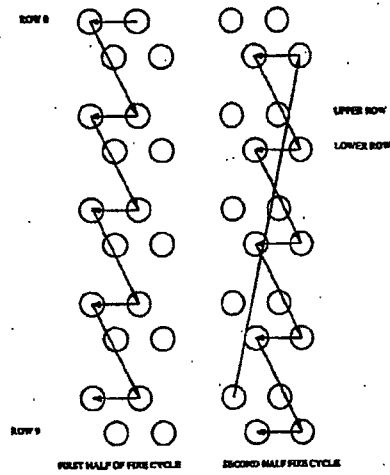


FIG. 372

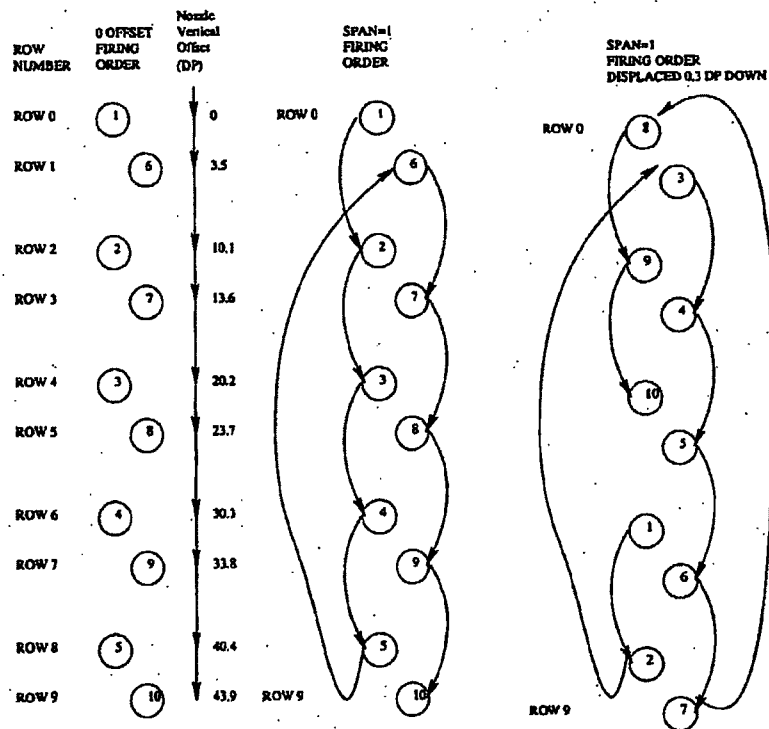


FIG. 373

212/223

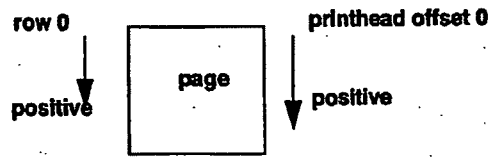


FIG. 374

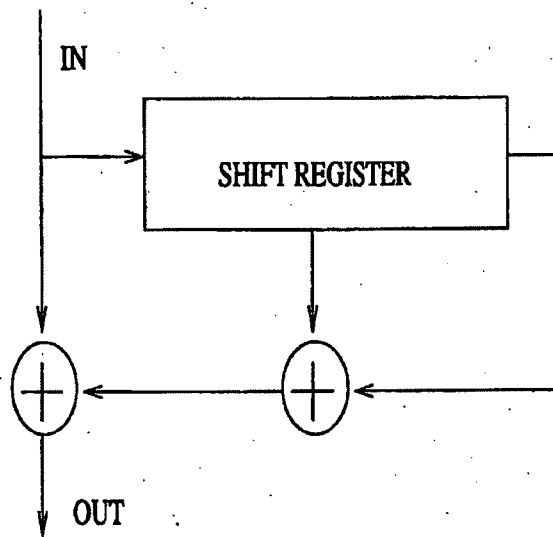


FIG. 375

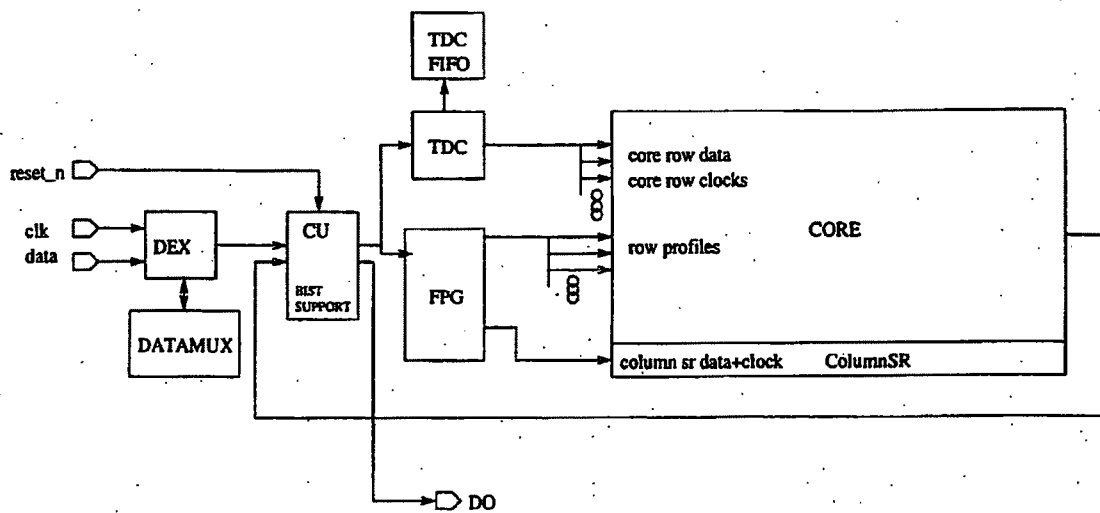


FIG. 376

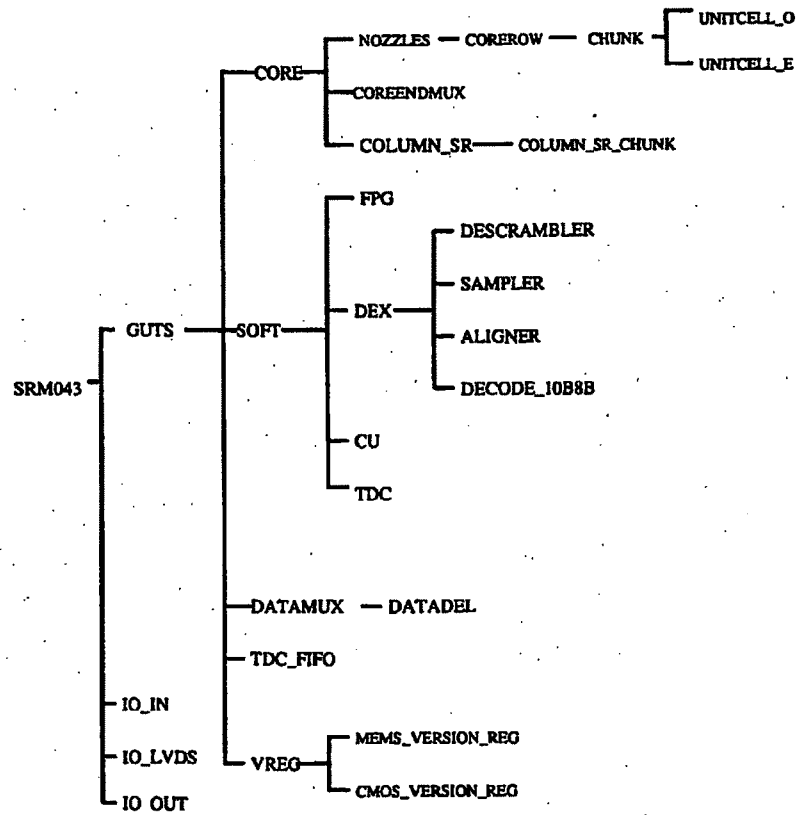


FIG. 377

214/223

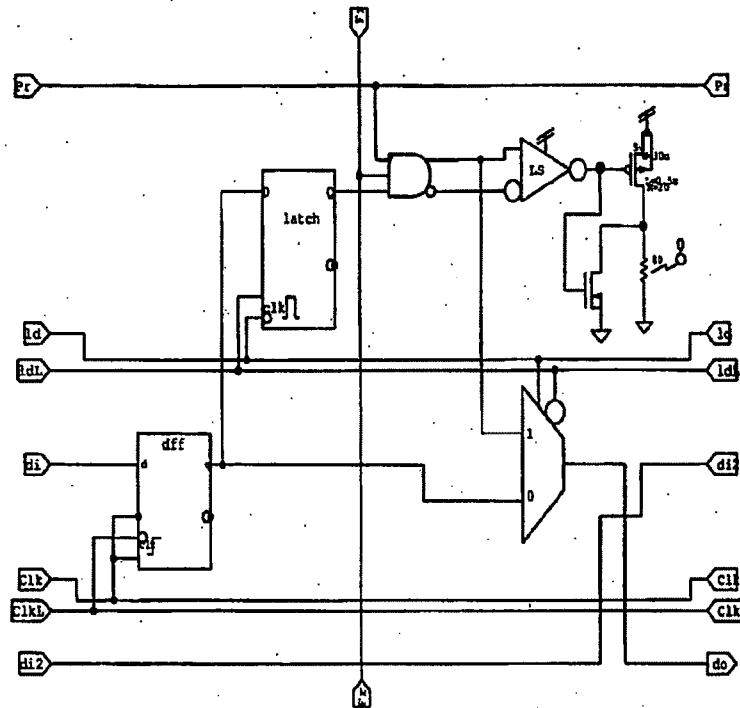


FIG. 378

	uu7	uu6	uu5	uu4	uu3	uu2	Pr	uu1	Ck	uu0	Ld
ul7	ul6	ul5	ul4	ul3	ul2	ul1	Pr	ul0	Ck		

FIG. 379

FIRE	
D0	D1
D1	D2
LD	LD
PR	PR
CK	CK
FIRE	

FIG. 380

215/223

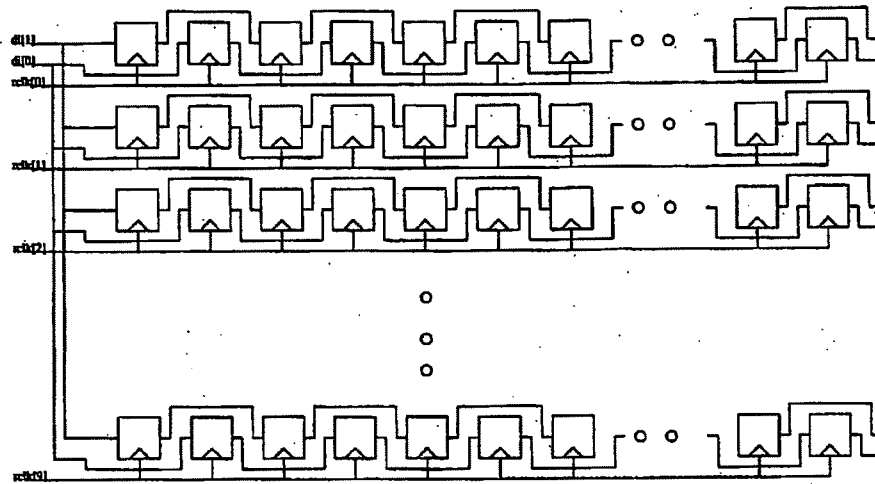


FIG. 381

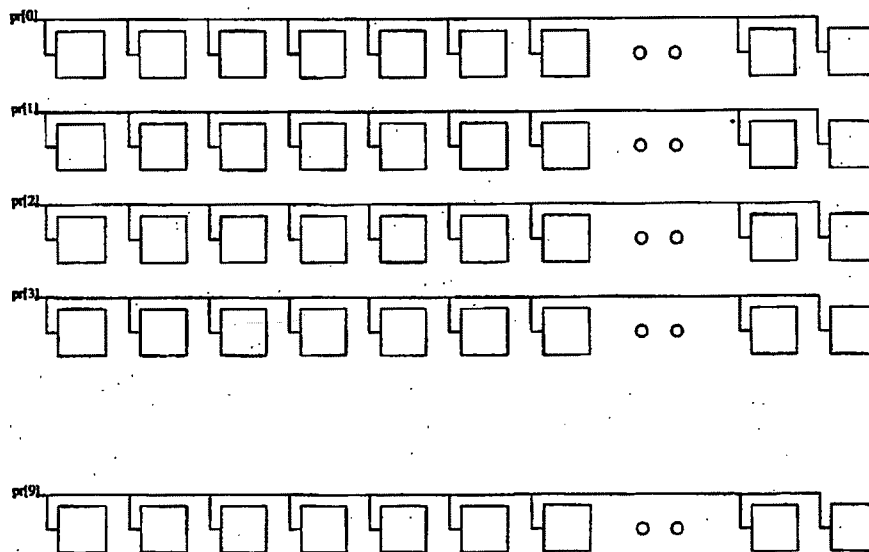


FIG. 382

216/223

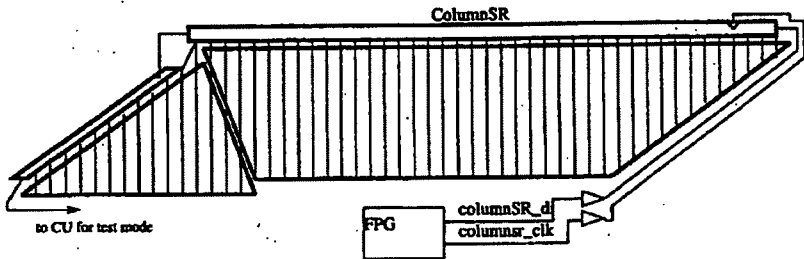


FIG. 383

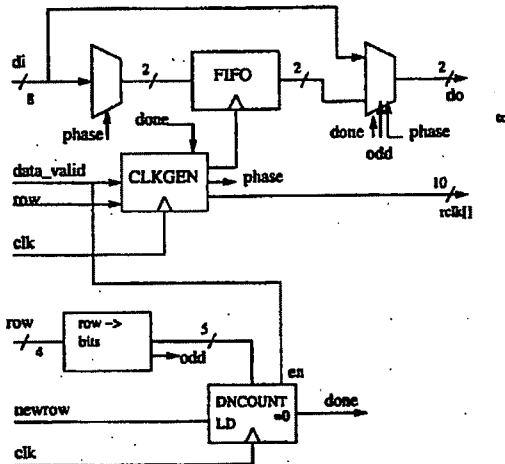


FIG. 384

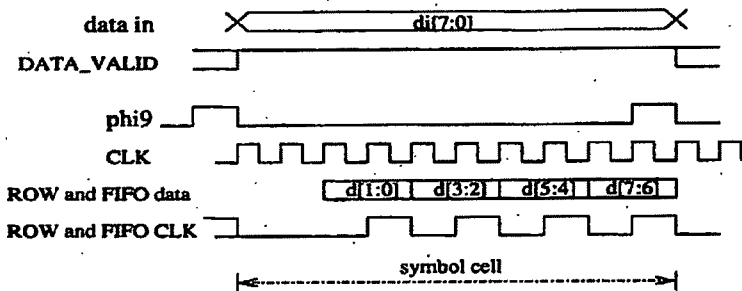


FIG. 385

217/223

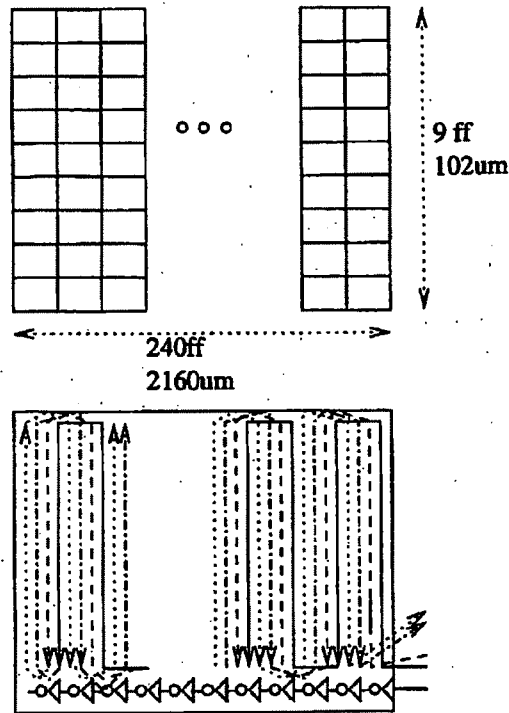


FIG. 386

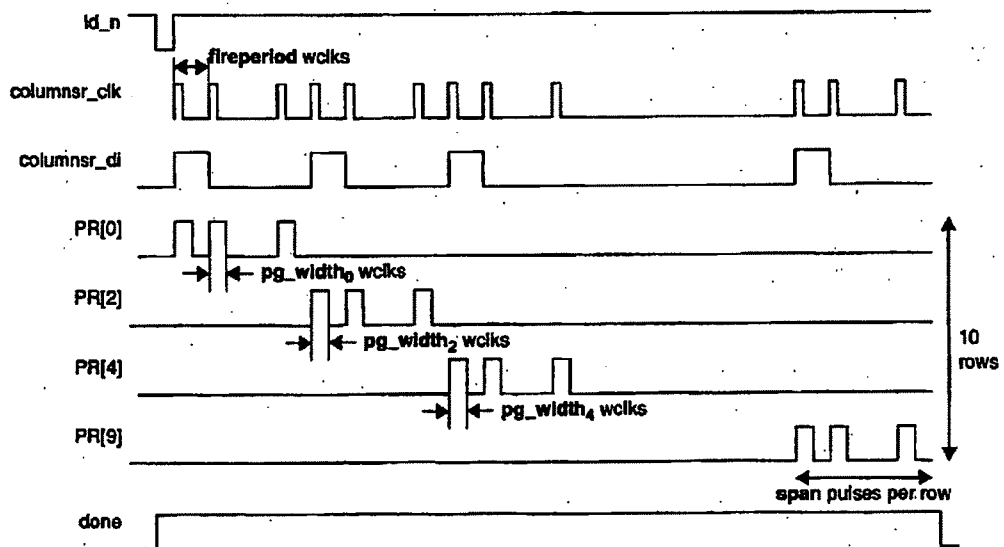


FIG. 387

```

graph LR
    DATA[DATA] --> DS[DATA SAMPLER]
    CLK[CLK] --> DS
    DS -- D --> DES[DESCRAMBLE]
    DS -- CLK --> DES
    DES --> ALIGN[ALIGN]
    CLK --> ALIGN
    ALIGN -- D --> D8[8B/10B DECODE]
    ALIGN -- ERROR --> D8
    ALIGN -- ALIGNED --> D8
    ALIGN -- CLK28 --> D8
    D8 -- D/S --> OutD[D/S]
    D8 -- FRR --> OutFRR[FRR]
    D8 -- Mdr --> OutMdr[Mdr]
    D8 -- Write --> OutWrite[Write]
    D8 -- Disparity_error --> OutDisparity[Disparity_error]
    D8 -- aligned --> OutAligned[aligned]
    D8 -- clk28 --> OutClk28[clk28]
    D8 -- clk --> OutClk[clk]
  
```

The diagram shows three fused benzene rings. Below each ring, there are two arrows pointing upwards. The leftmost ring has arrows labeled d_2 and d_1 . The middle ring has arrows labeled d_2 and d_1 . The rightmost ring has arrows labeled d_2 and d_1 .

FIG. 390

219/223

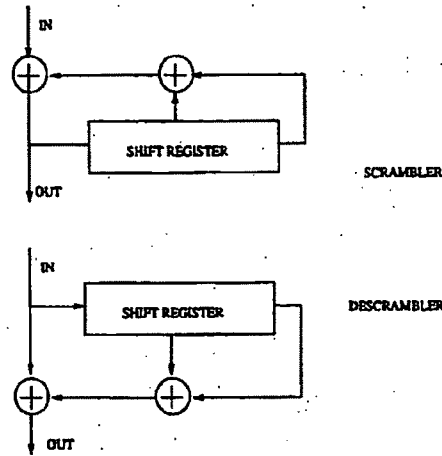


FIG. 391

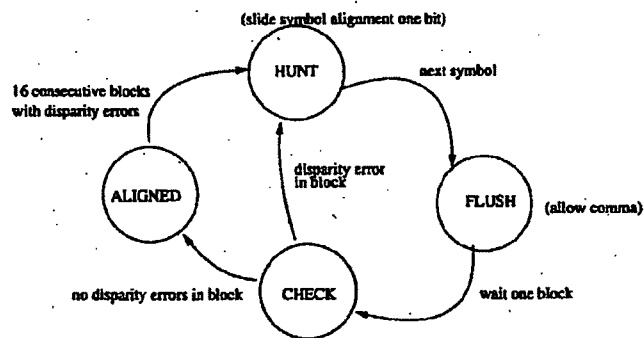


FIG. 392

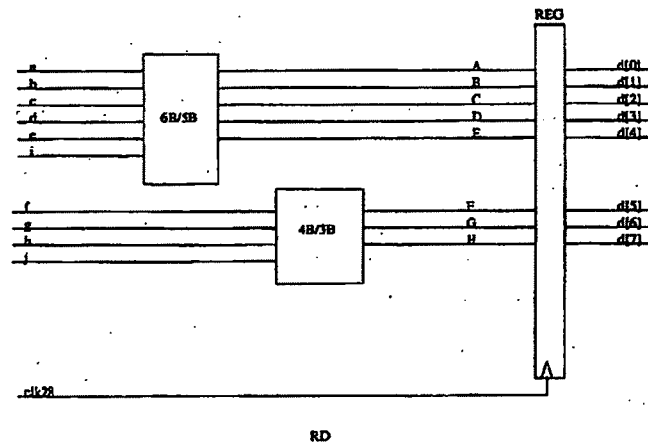


FIG. 393

220/223

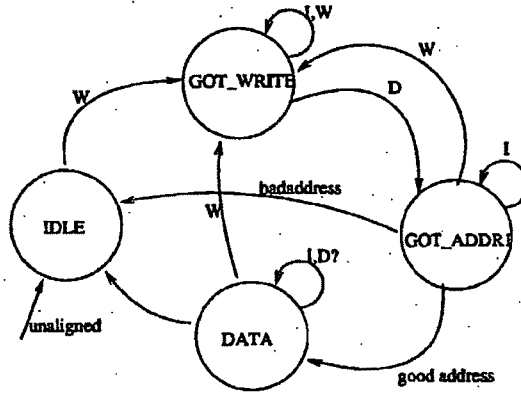


FIG. 394

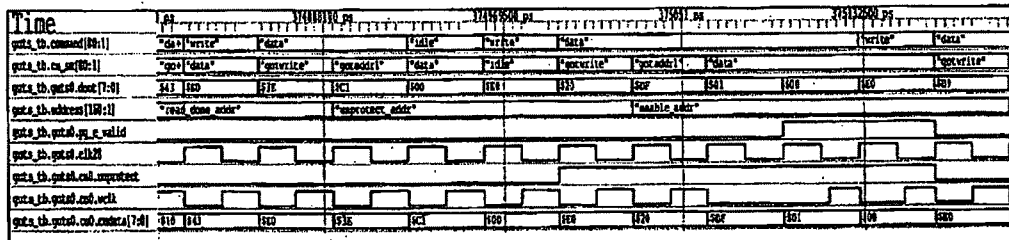


FIG. 395

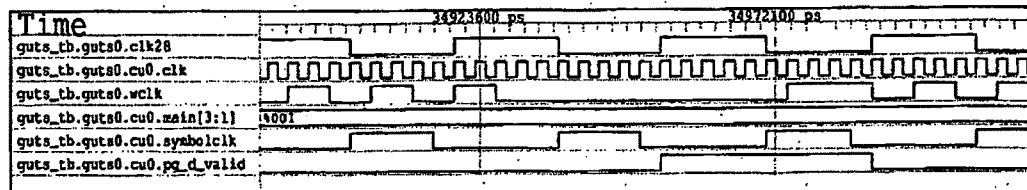


FIG. 396

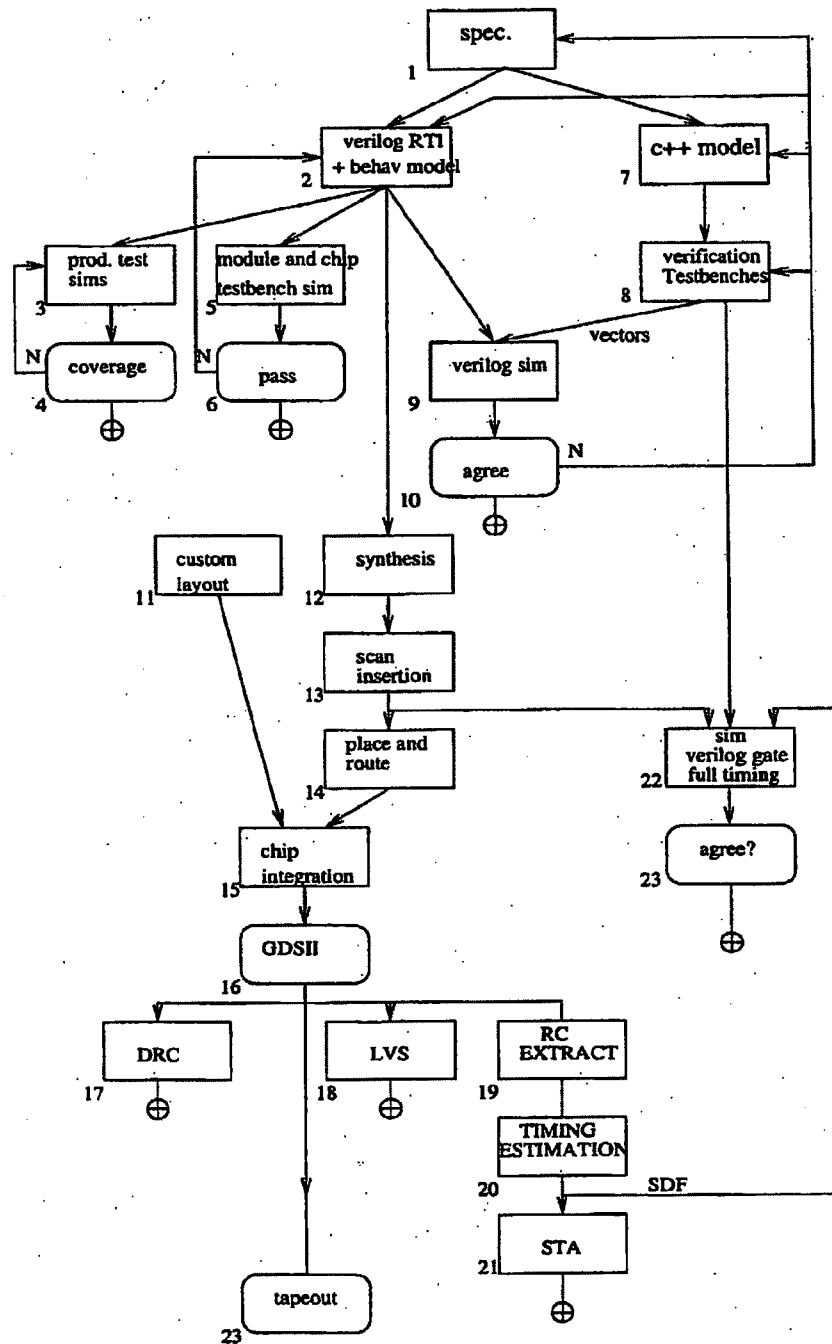


FIG. 397

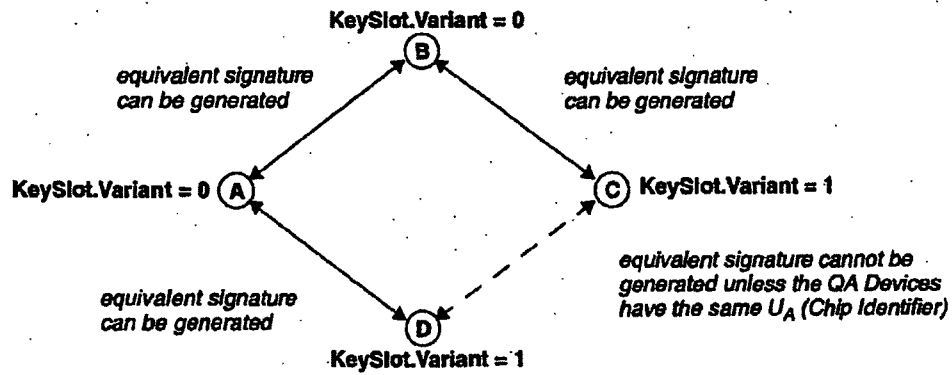


FIG. 398

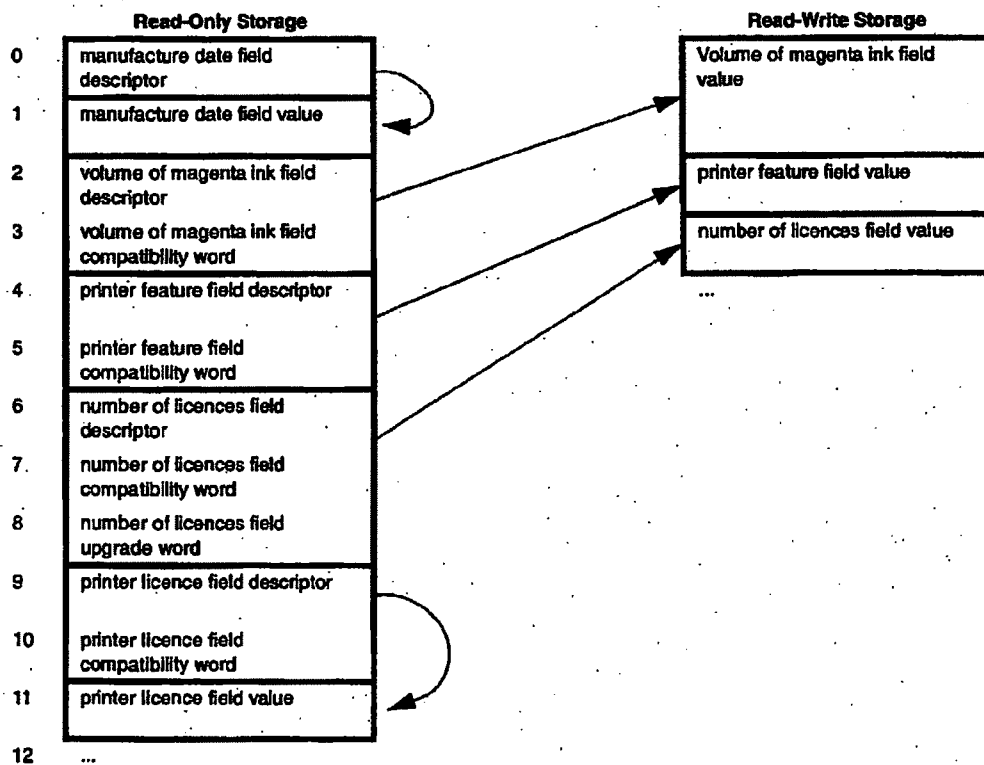


FIG. 399

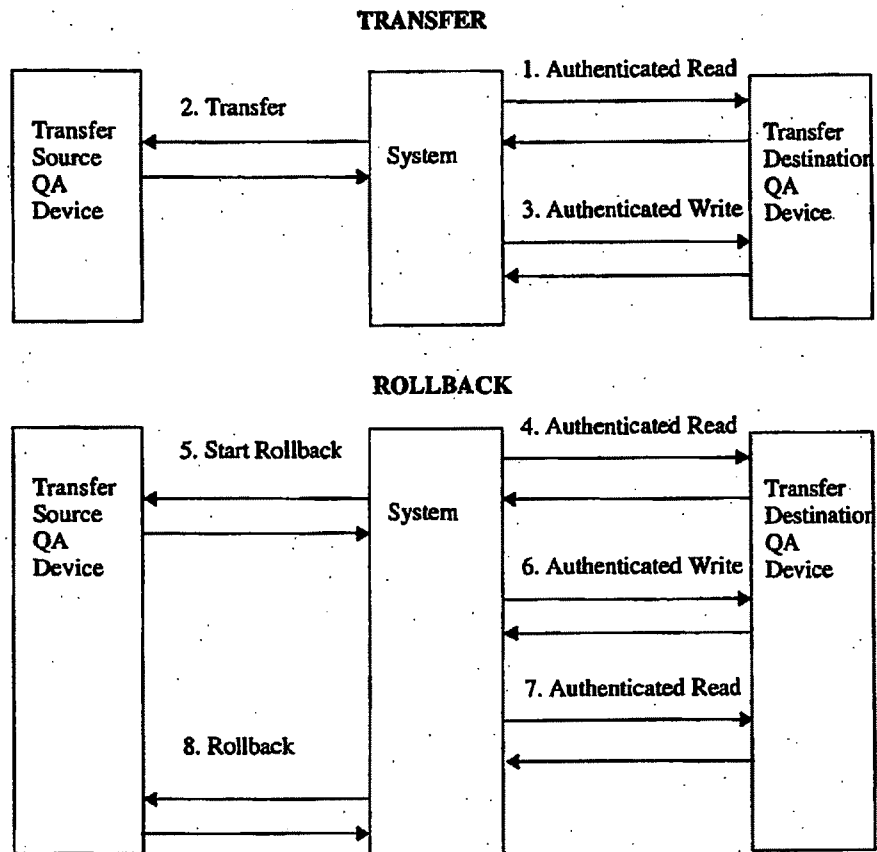


FIG. 400