

FIG. 1

1

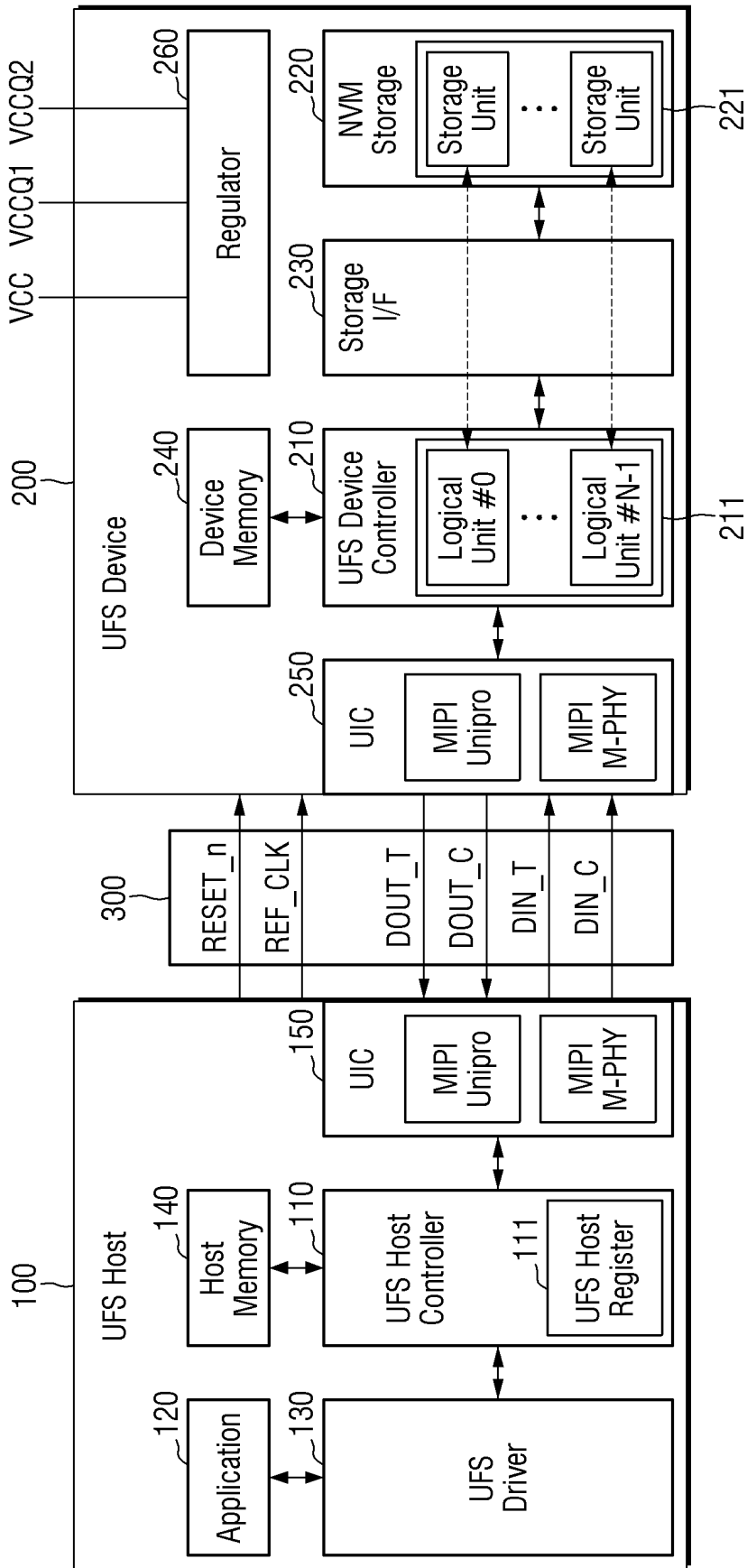


FIG. 2

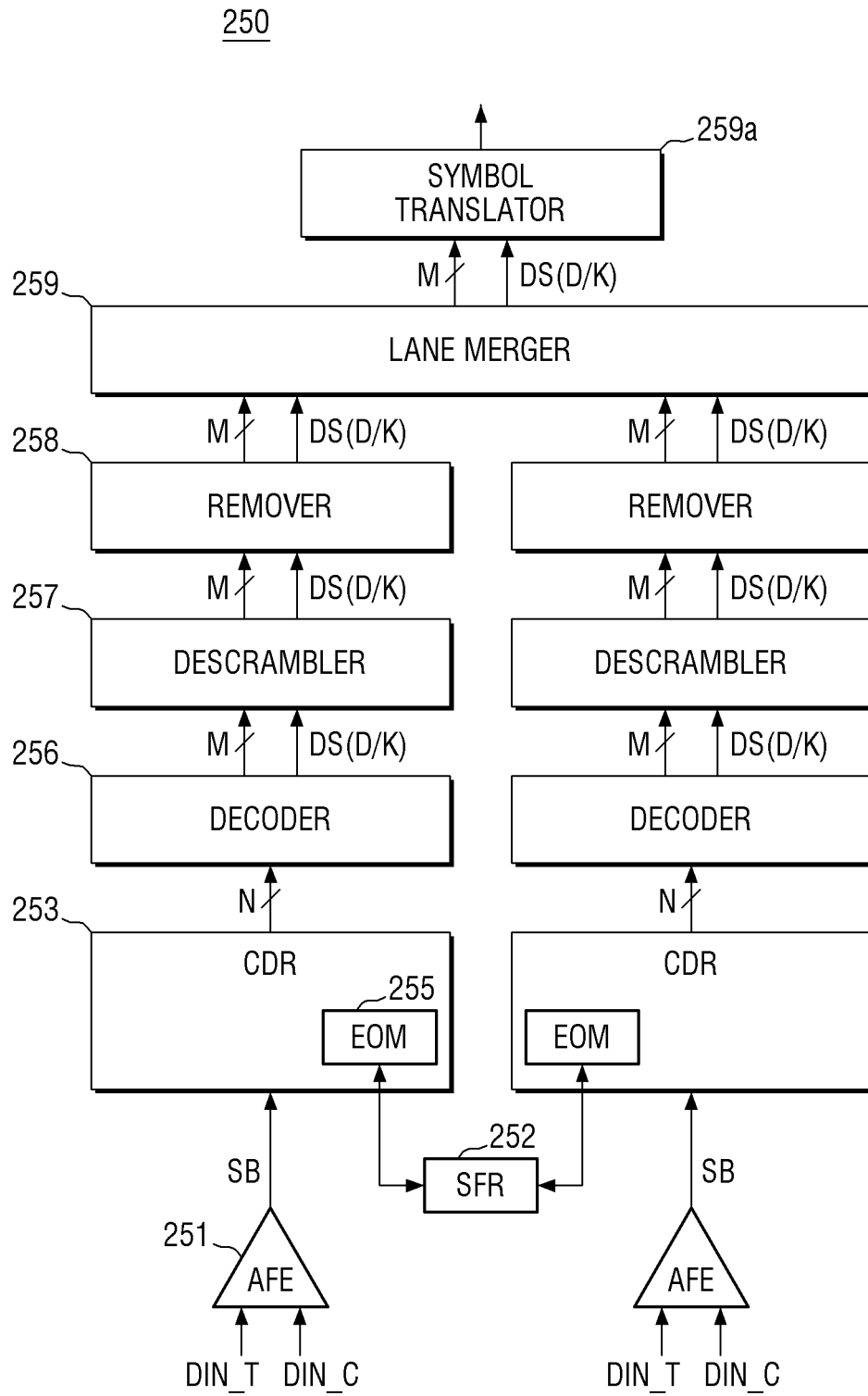


FIG. 3

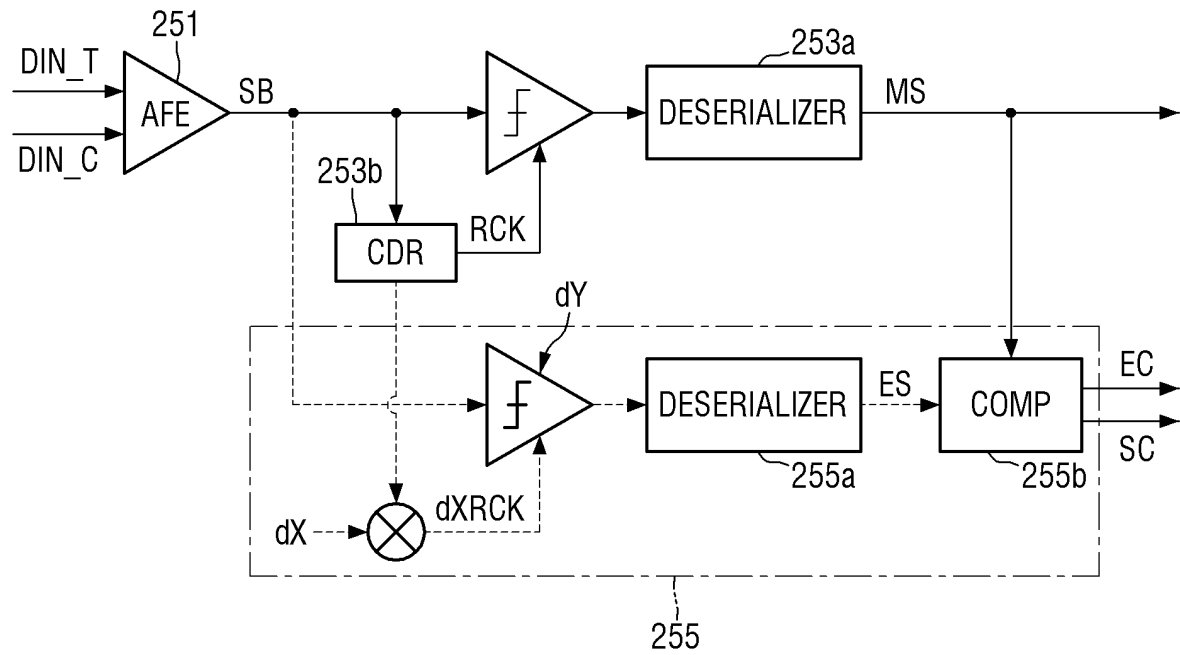


FIG. 4

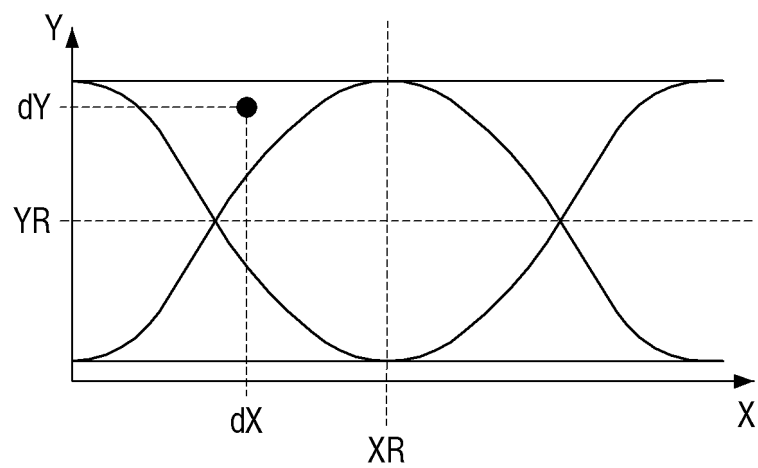


FIG. 5

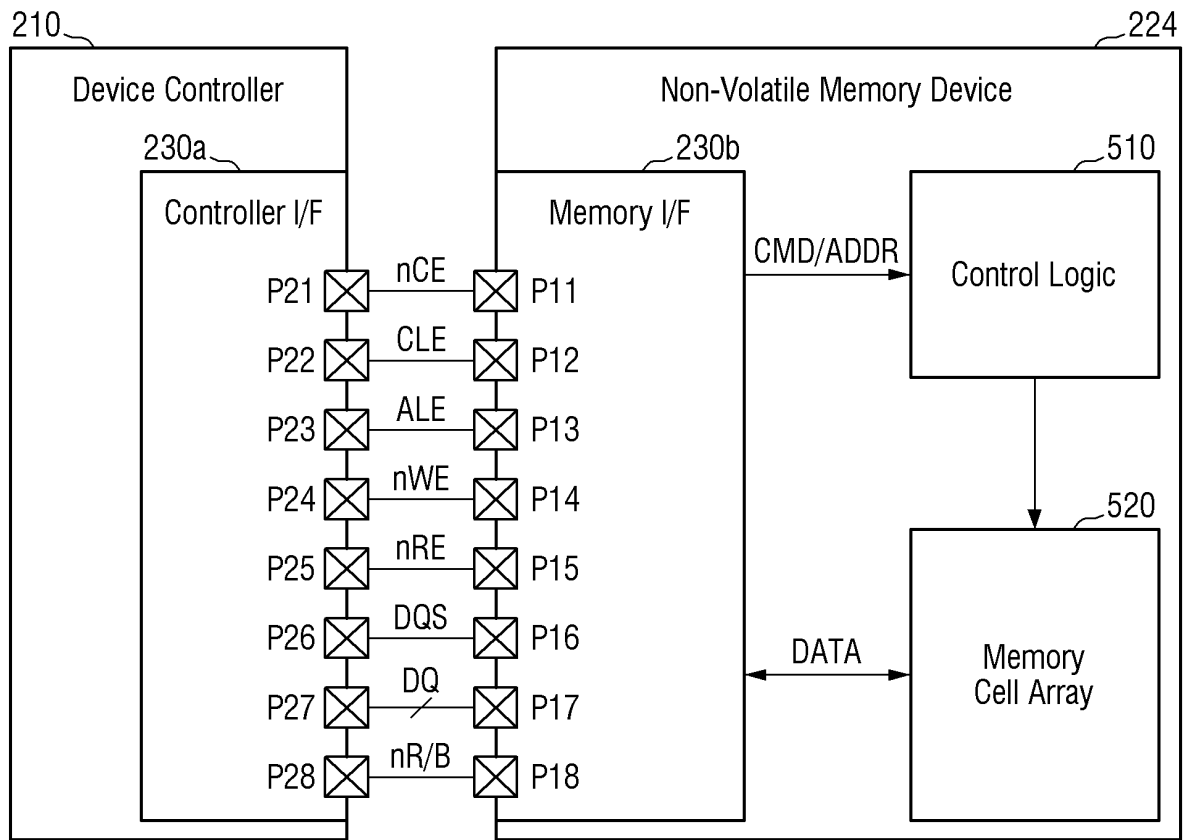


FIG. 6

224

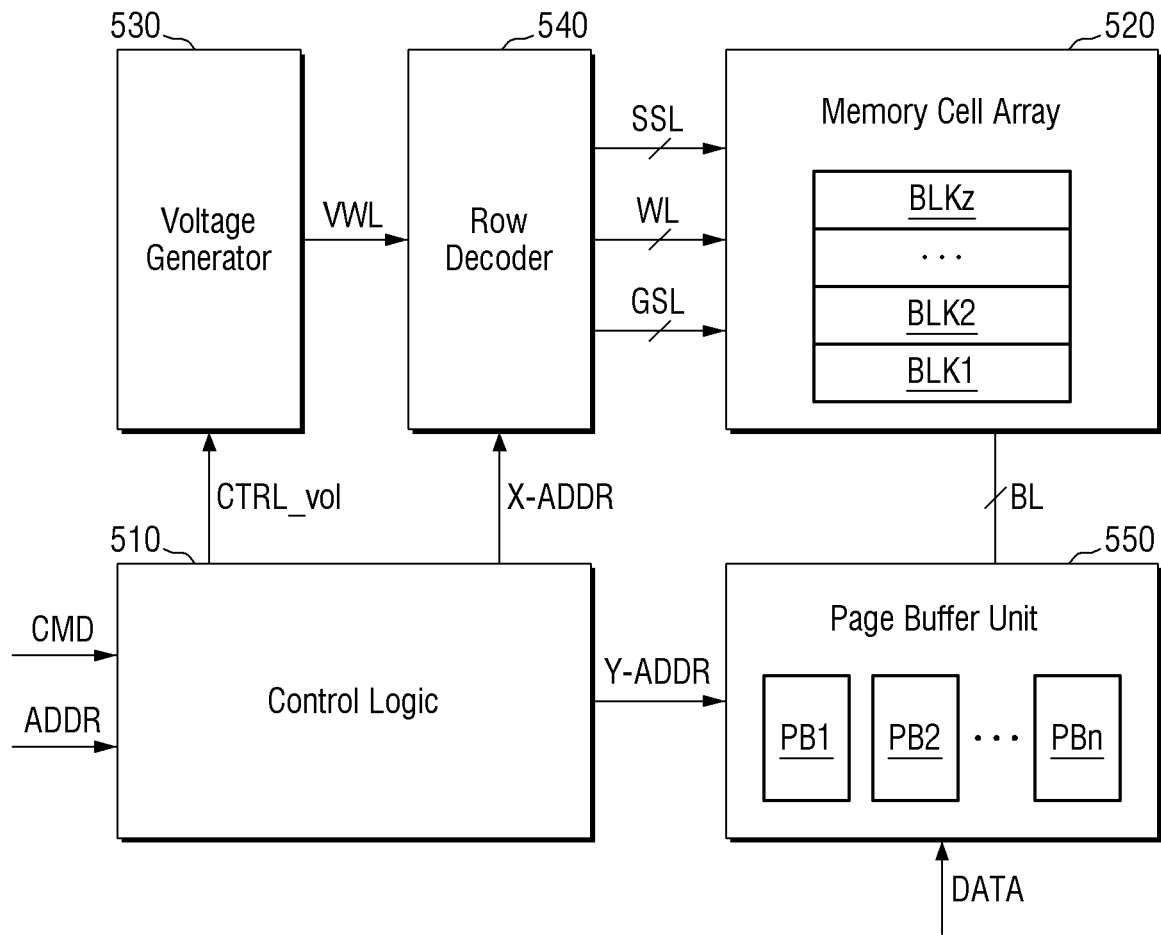


FIG. 7

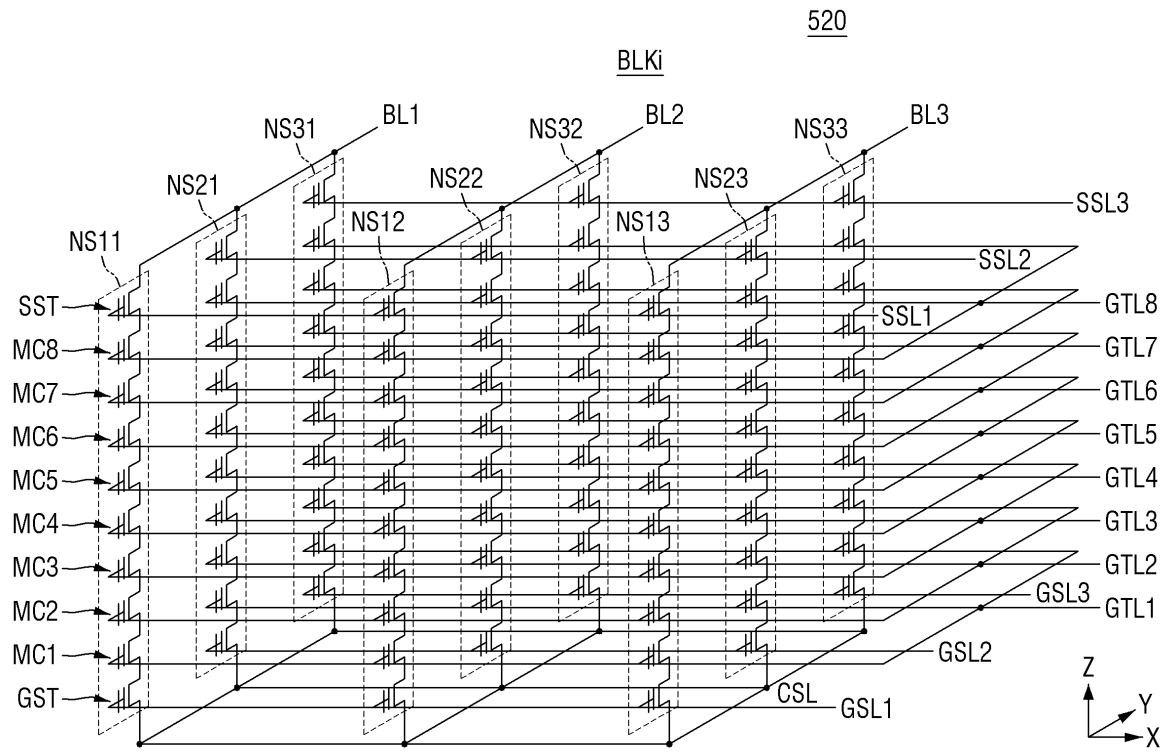


FIG. 8

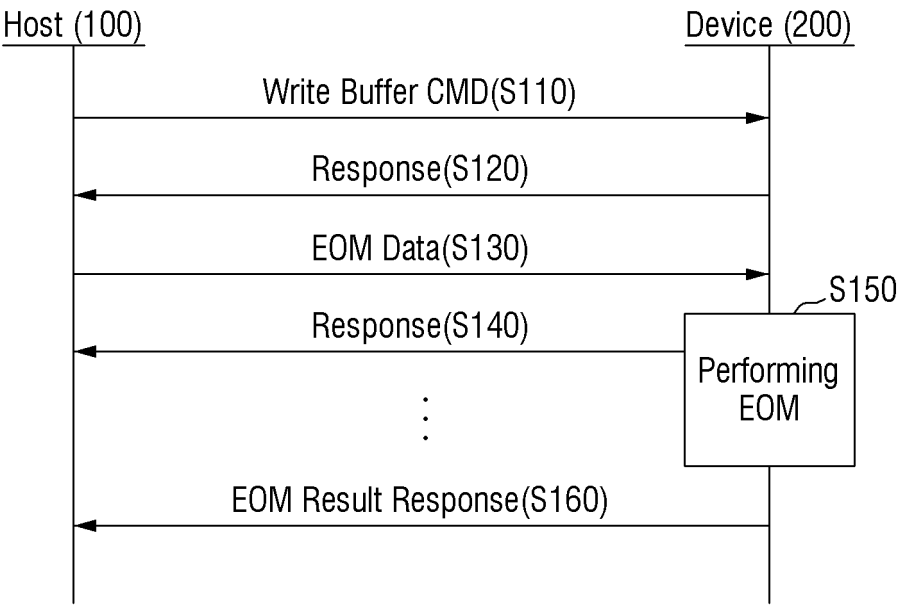


FIG. 9

Byte ^{Bit}	7	6	5	4	3	2	1	0
0	Operation code (3Bh)							
1	Reserved			Mode = 1Fh				
2	BUFFER ID							
3	(MSB)							
4	BUFFER OFFSET							
5	(LSB)							
6	(MSB)							
7	PARAMETER LIST LENGTH							
8	(LSB)							
9	Control = 00h							

FIG. 10

MODE	DESCRIPTION
00h	Not used in UFS
01h	Vendor Specific
02h	Data
...	Not used in UFS
0Eh	Download microcode with offsets, save and defer active
...	Not used in UFS
1Dh	Reserved
1Eh	Reserved
1Fh	EYE OPEN MONITOR

FIG. 11

Byte	Bit	7	6	5	4	3	2	1	0
0	(MSB)								
1		EOM DATA LENGTH (N-11)							
2		(LSB)							
3		PHASE SELECT							
4		VREF CONTROL							
5		NUMBER OF SAMPLING							
6		VREF RESOLUTION				PHASE RESOLUTION (GEAR)			
7		Reserved = 00h							
8		Reserved = 00h							
9		Reserved = 00h							
10		Reserved = 00h							
11		Reserved = 00h							

EDH

12	Data[0]
...	...
N	Data[EOM DATA LENGTH - 1]

EDP

FIG. 12

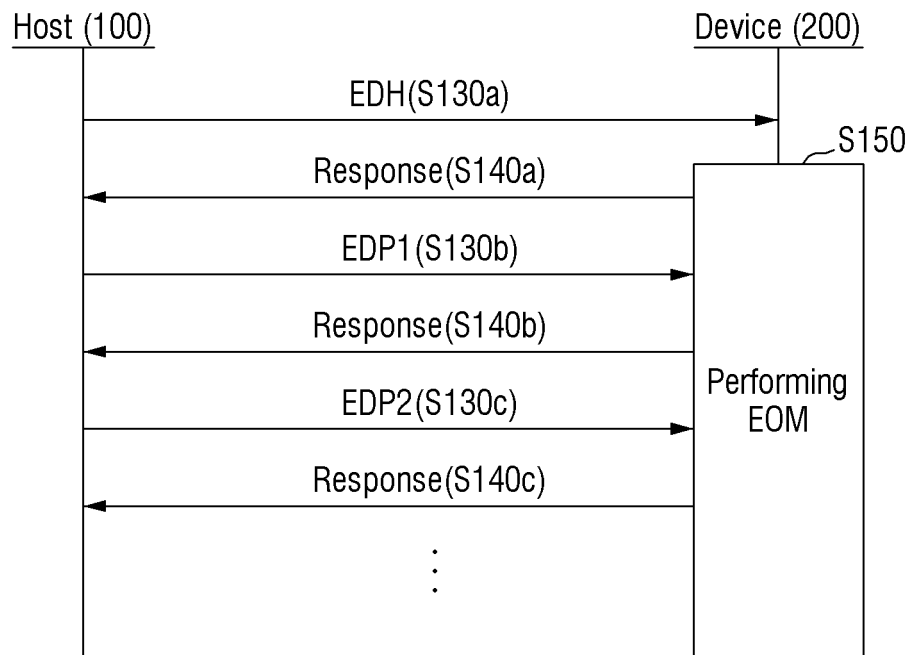


FIG. 13

Byte	Bit	7	6	5	4	3	2	1	0
0	(MSB)								
1		Total Data Length (N+1)							
2									(LSB)
3	(MSB)								
4		EOM Data Pattern Length (N-11)							
5									(LSB)
6		Timing Step							
7		Voltage Step							
8		Number of Sampling							
9		Timing Offset							
10		Voltage Offset							
11		Reserved 1							
12		EOM Data Pattern							
13									
14									
15									
16									
17									
18									
19									
20									
21									
8									
N-2									
...									
N									

FIG. 14

Response UPIU						
0	xx10 0001b		1	Flags	2	3 Task Tag
4	IID	Command Set Type	5	Reserved	6	7 Response
8	Total EHS Length (00h)		9	Device Information	10	11 Data Segment Length
12 (MSB)			13		14	15 (LSB)
Residual Transfer Count						
16			17		18	19
Reserved						
20			21		22	23
Reserved						
24			25		26	27
Reserved						
28			29		30	31
Reserved						
Header E2ECRC (omit if HD=0)						
k	Sense Data Length		k+1		k+2	k+3 Sense Data[1]
k+4	Sense Data[2]		k+5	Sense Data[3]	k+6	k+7 Sense Data[5]
...			...		...	...
k+16	Sense Data[14]		k+17	Sense Data[15]	k+18	k+19 Sense Data[17]
Data E2ECRC (omit if DD=0)						
NOTE 1 k = 32 if HD = 0.						

FIG. 15

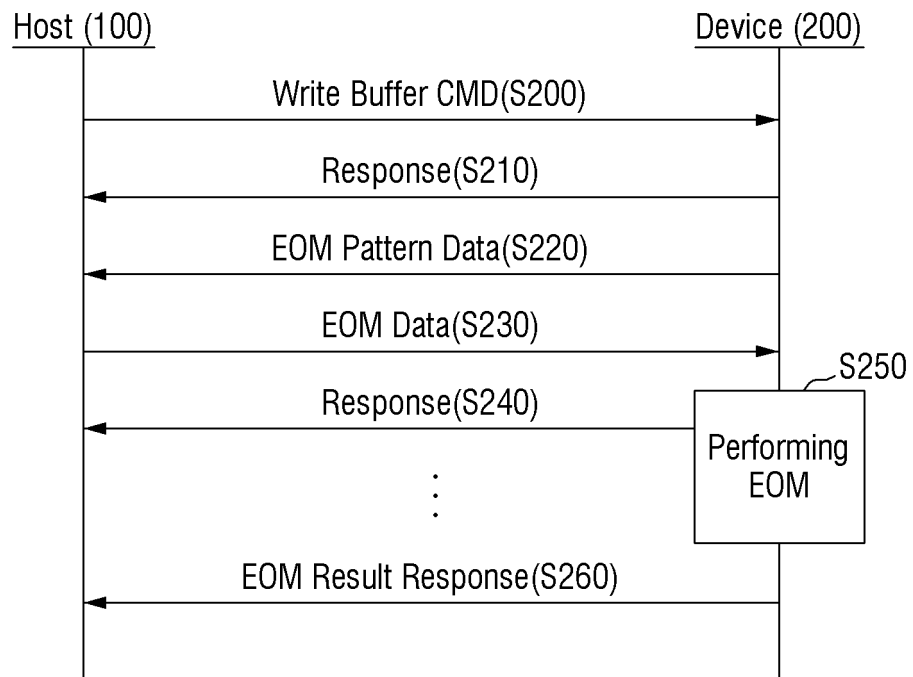


FIG. 16

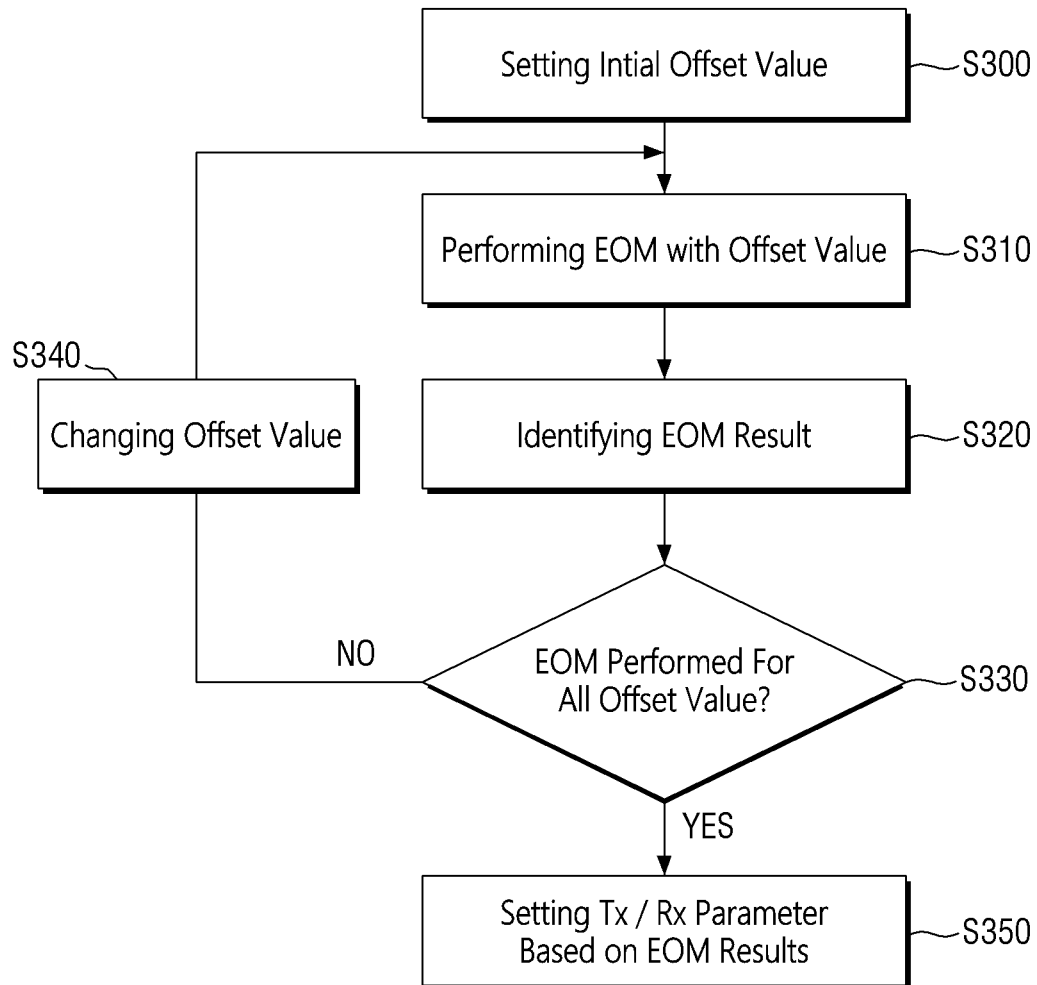


FIG. 17

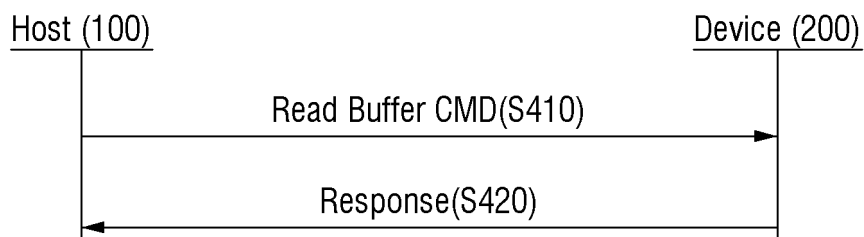


FIG. 18

Bit Byte	7	6	5	4	3	2	1	0
0	Operation code (3Ch)							
1	Reserved			Mode = 1Fh				
2	BUFFER ID							
3	(MSB)							
4	BUFFER OFFSET							
5	(LSB)							
6	(MSB)							
7	ALLOCATION LENGTH							
8	(LSB)							
9	Control = 00h							

FIG. 19

BUFFER ID	DESCRIPTION
00h	Specific Coordinate axes (error count for specific offset value)
01h	EOM Parameter (EOM offset) Only
02h	Channel Parameter (TX/RX Parameter) Only
03h	EOM Parameter & Channel Parameter

FIG. 20

Bit Byte	7	6	5	4	3	2	1	0
0	Operation code (3Ch)							
1	Reserved			Mode = 1Fh				
2	BUFFER ID							
3	(MSB)			X-axis				
4				(LSB)	(MSB) Y-axis			
5								(LSB)
6	(MSB)							
7	ALLOCATION LENGTH							
8								(LSB)
9	Control = 00h							

FIG. 21

Bit	7	6	5	4	3	2	1	0
Byte								
0	(MSB)							
1	ERR_CNT.(Value)							
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
...								
N								

FIG. 22

Byte	7	6	5	4	3	2	1	0
0	PHASE SELECT							
1	VREF CONTROL							
2	NUMBER OF SAMPLING							
3	(MSB)							
4	ERR_CNT.(Value)							
5								
6								
7								
8	Reserved = 00h							
9	Reserved = 00h							
10	Reserved = 00h							
11	Reserved = 00h							
12	Data[0]							
...								
N	Data[EOM DATA LENGTH - 1]							

FIG. 23

Byte	Bit	7	6	5	4	3	2	1	0
0	(MSB)	Parameter Value #1 (Value)							
1									
2									
3									
4	(MSB)	Parameter Value #2 (Value)							
5									
6									
7									
...									
4N-1	(MSB)	Parameter Value #N (Value)							
4N									
4N+1									
4N+2									
4N+3	(MSB)	ERR_CNT.(Value)							
...									
		Reserved = 00h							
		Reserved = 00h							
		Reserved = 00h							
		Reserved = 00h							

12	Data[0]
...	
N	Data[EOM DATA LENGTH - 1]

FIG. 24

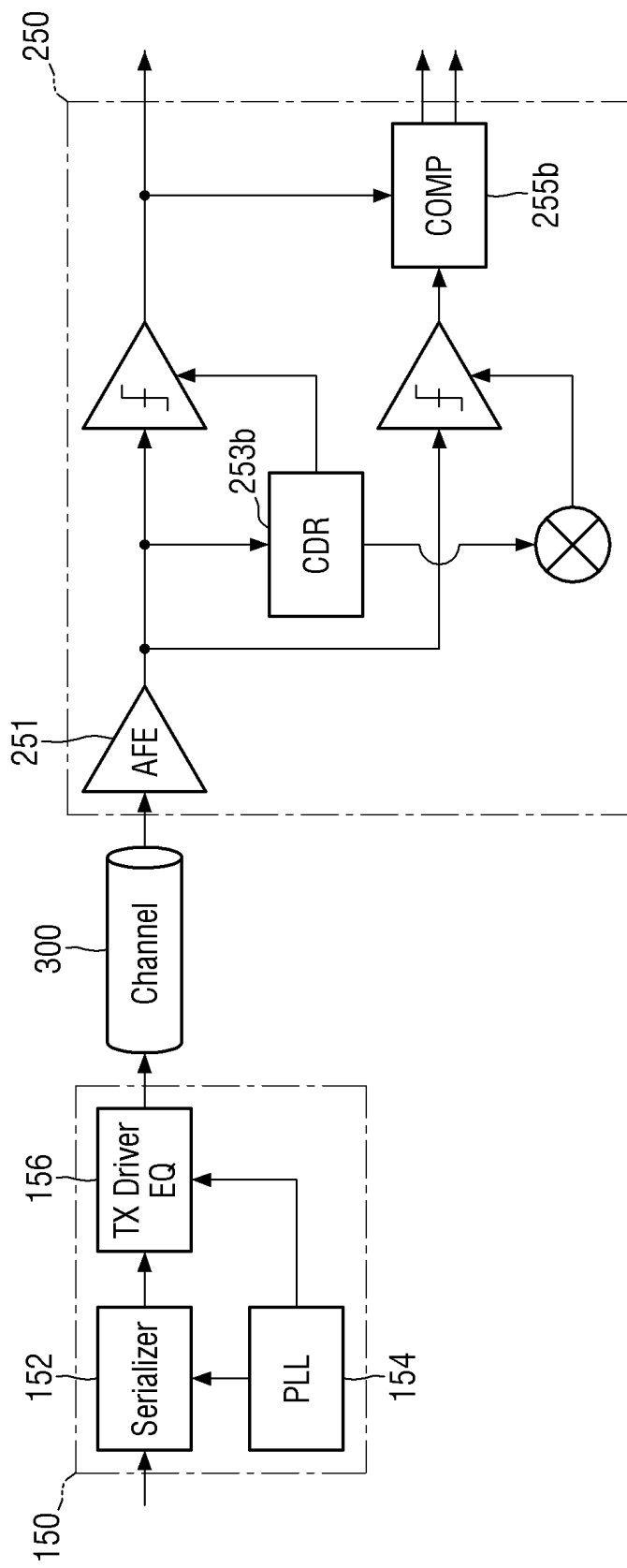


FIG. 25

Bit Byte	7	6	5	4	3	2	1	0
0								
1								
2								
3	(MSB)	Parameter Value #1 (Value)						
4								
5								
6								(LSB)
7	(MSB)	Parameter Value #2 (Value)						
8								
9								
10								(LSB)
...								
4N-1	(MSB)	Parameter Value #N (Value)						
4N								
4N+1								
4N+2								(LSB)
4N+3	(MSB)	ERR_CNT.(Value)						
...								
								(LSB)

FIG. 26

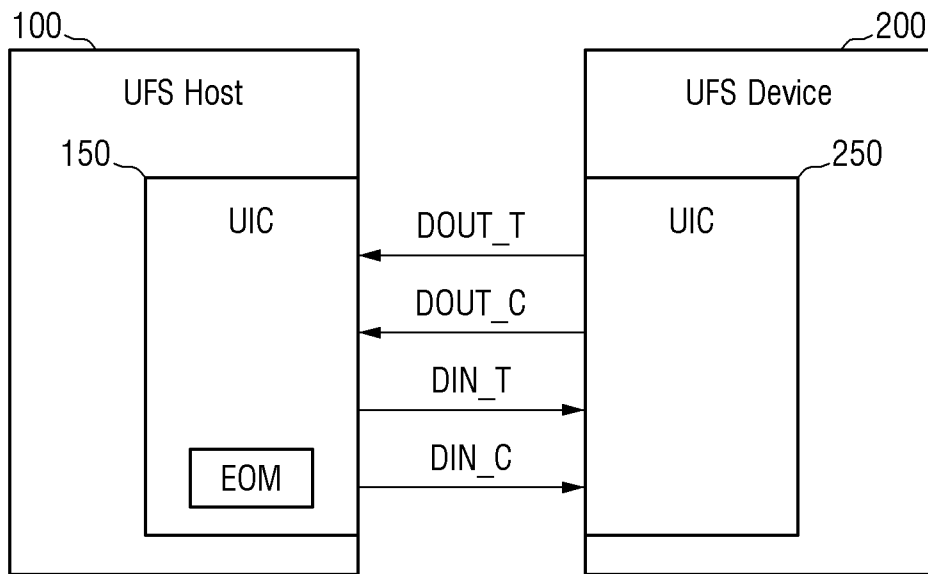


FIG. 27

