

FIG. 1

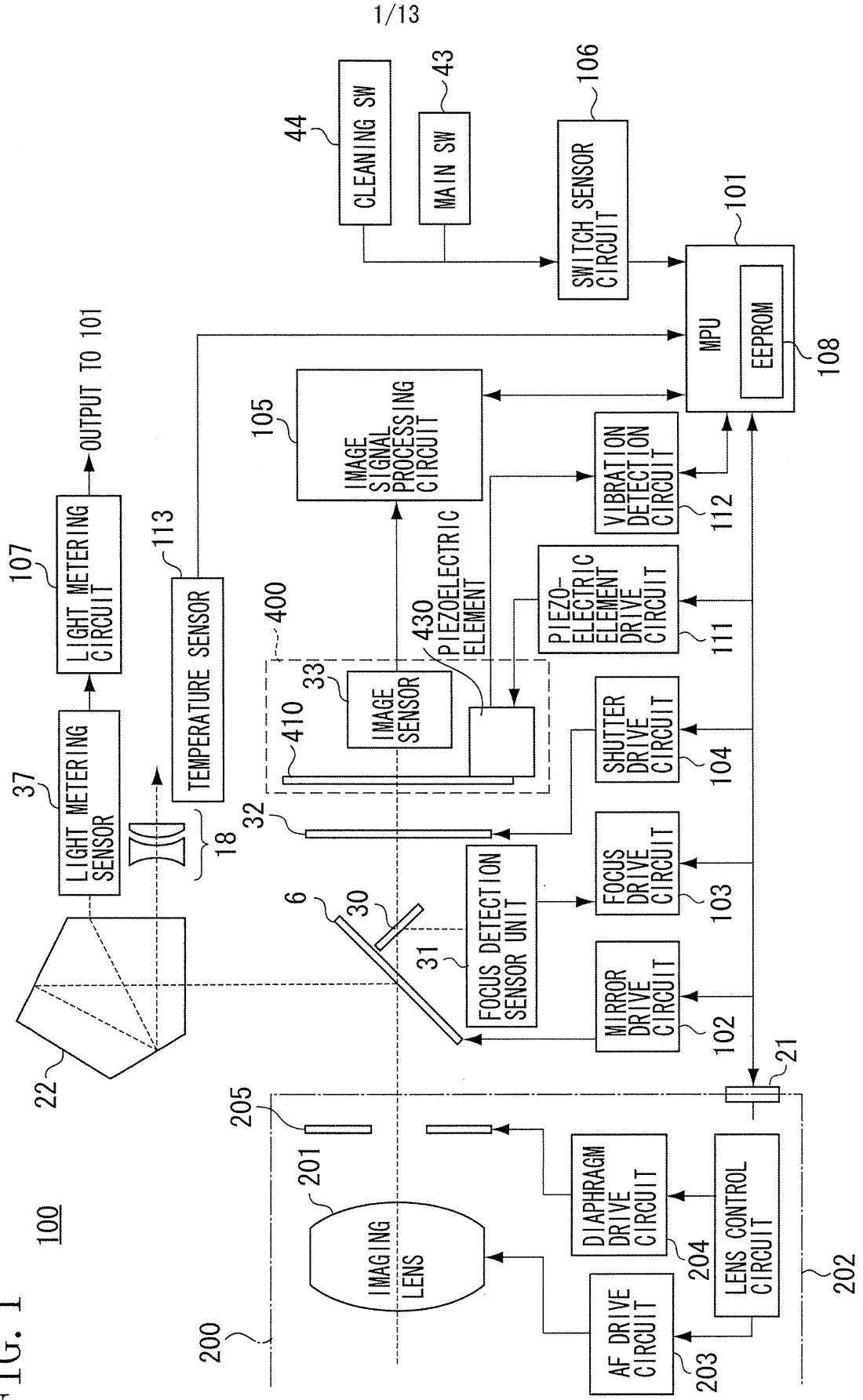


FIG. 2

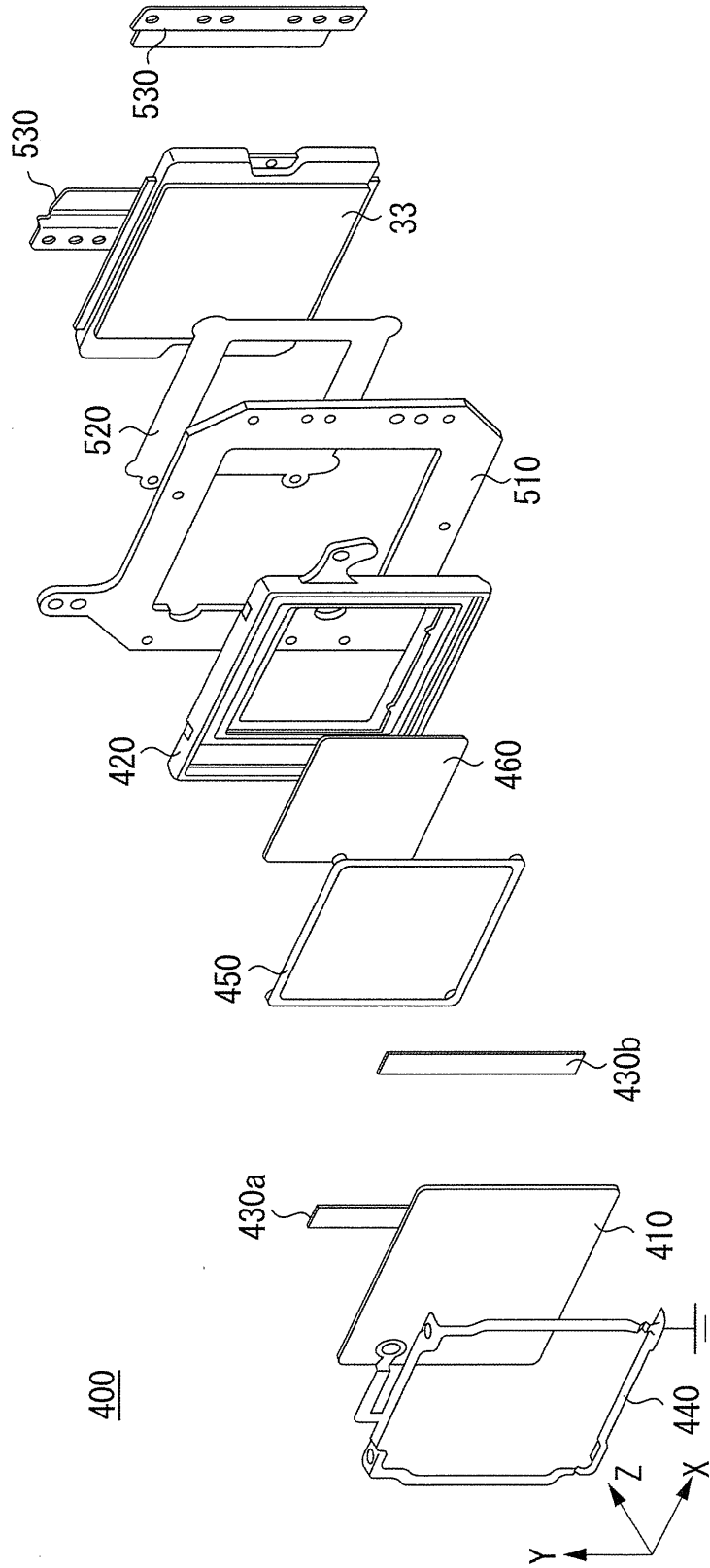


FIG. 3

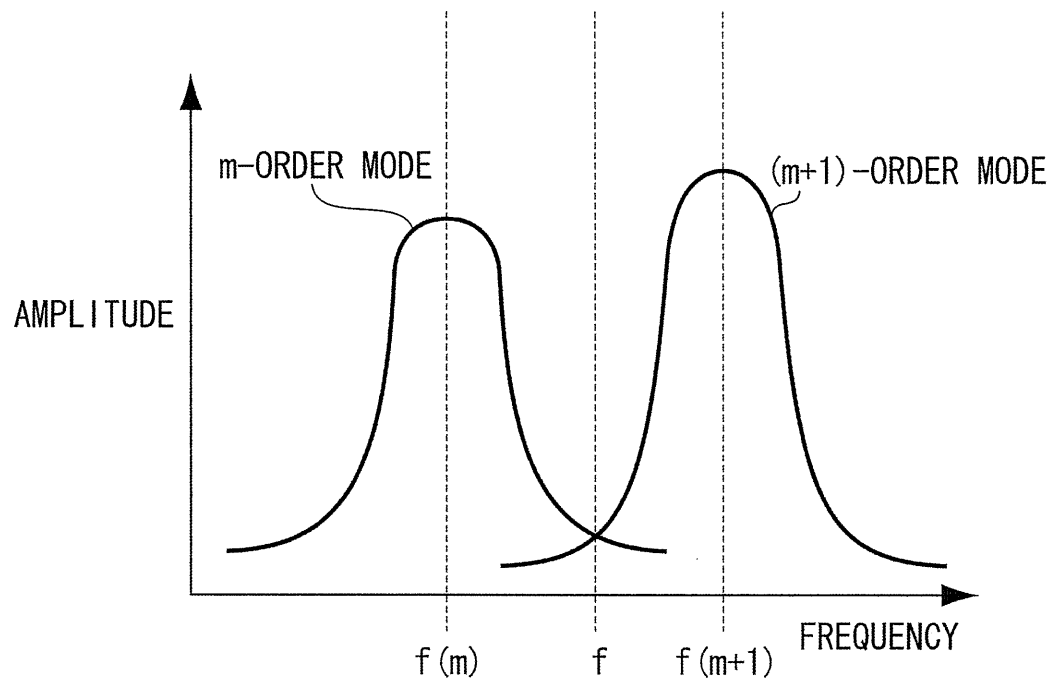
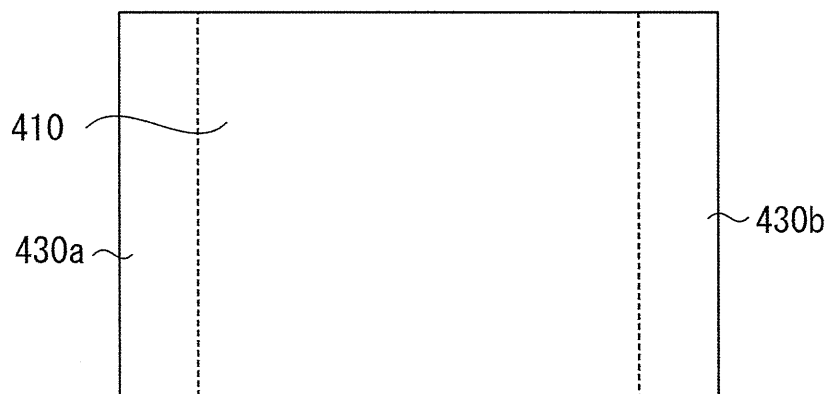


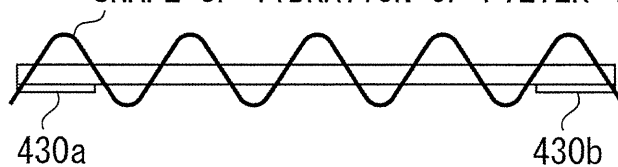
FIG. 4A

IN CASE WHERE
 m IS ODD NUMBER ($m=9$)



SHAPE OF VIBRATION OF FILTER 410

m -ORDER MODE



$(m+1)$ -ORDER MODE

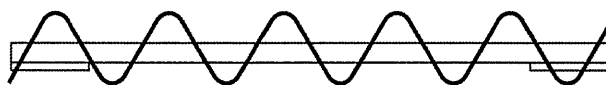


FIG. 4B

		VOLTAGE APPLIED TO PIEZOELECTRIC ELEMENT 430a		VOLTAGE APPLIED TO PIEZOELECTRIC ELEMENT 430b	
		REAL COMPONENT	IMAGINARY COMPONENT	REAL COMPONENT	IMAGINARY COMPONENT
(1)	m-ORDER	1	0	1	0
(2)	(m+1)-ORDER	A	0	-A	0
(3)	(m+1)-ORDER MODE SHIFTED BY 90° IN TERMS OF TIME PHASE	0	A	0	-A
(4)	COMBINATION OF (1) AND (3)	1	A	1	-A

FIG. 5

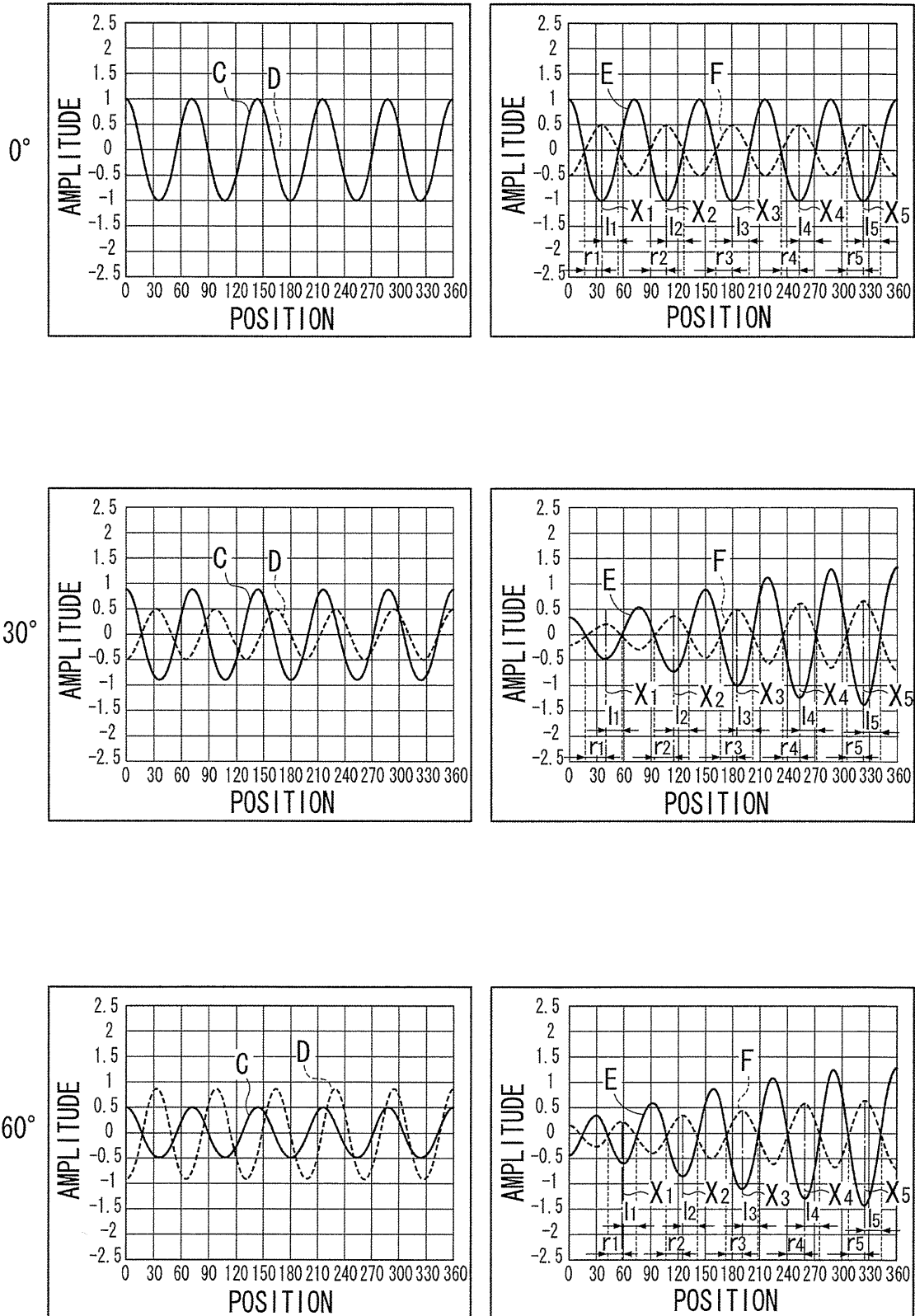


FIG. 6

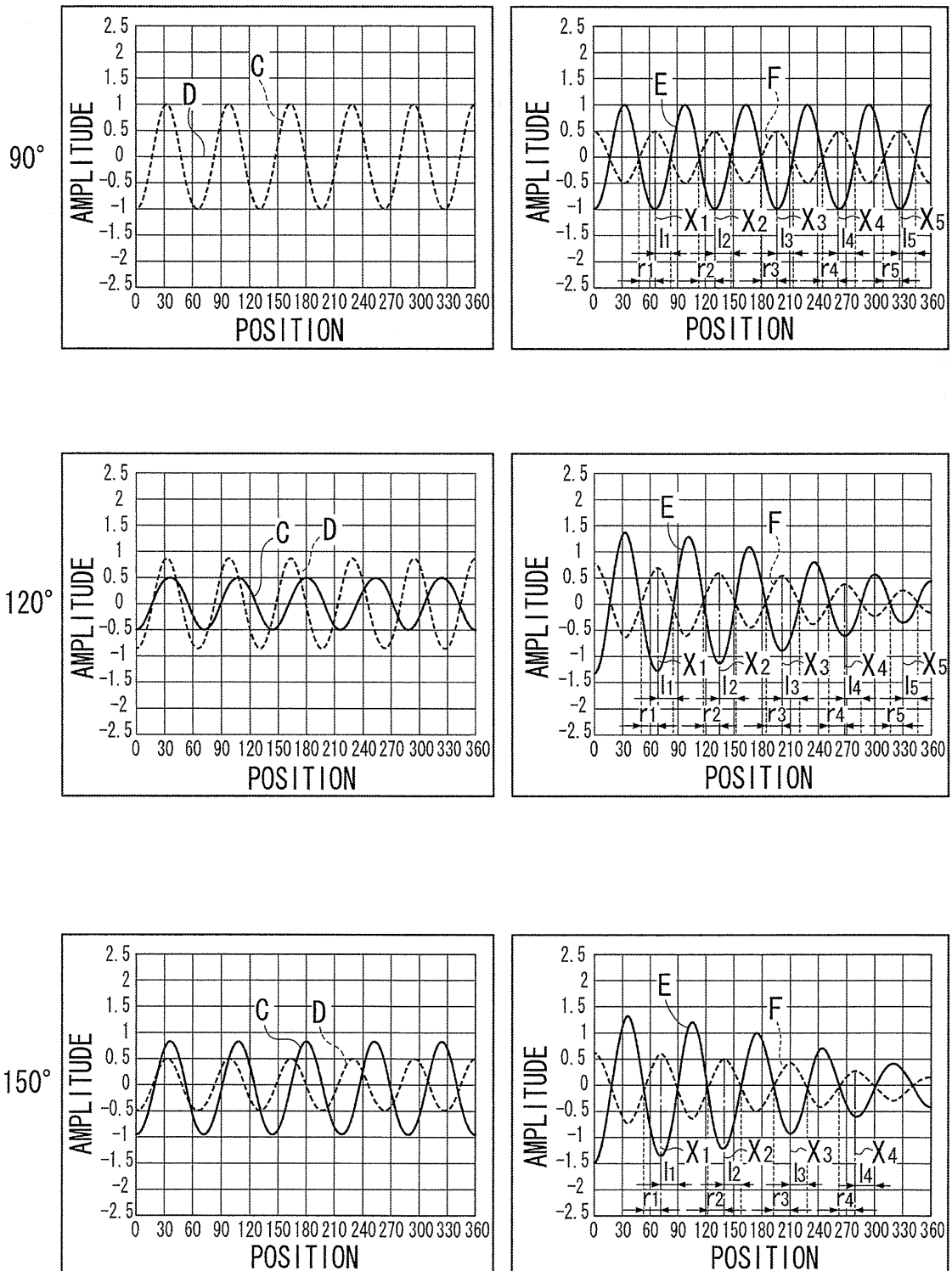


FIG. 7

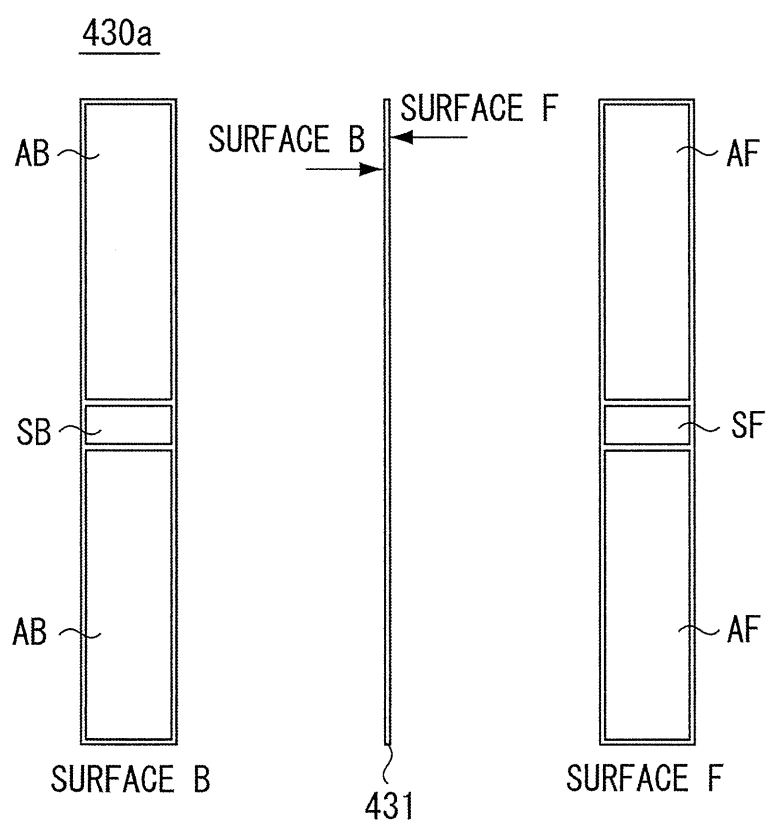


FIG. 8

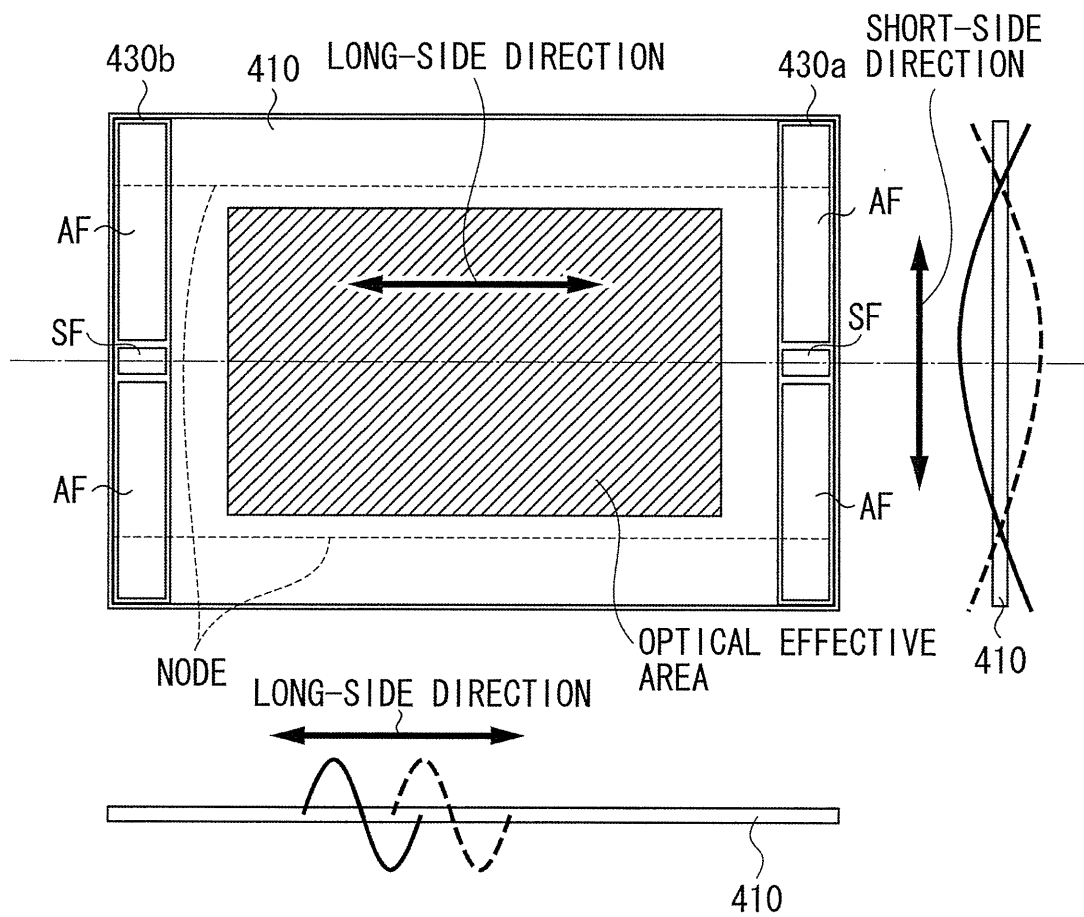


FIG. 9A

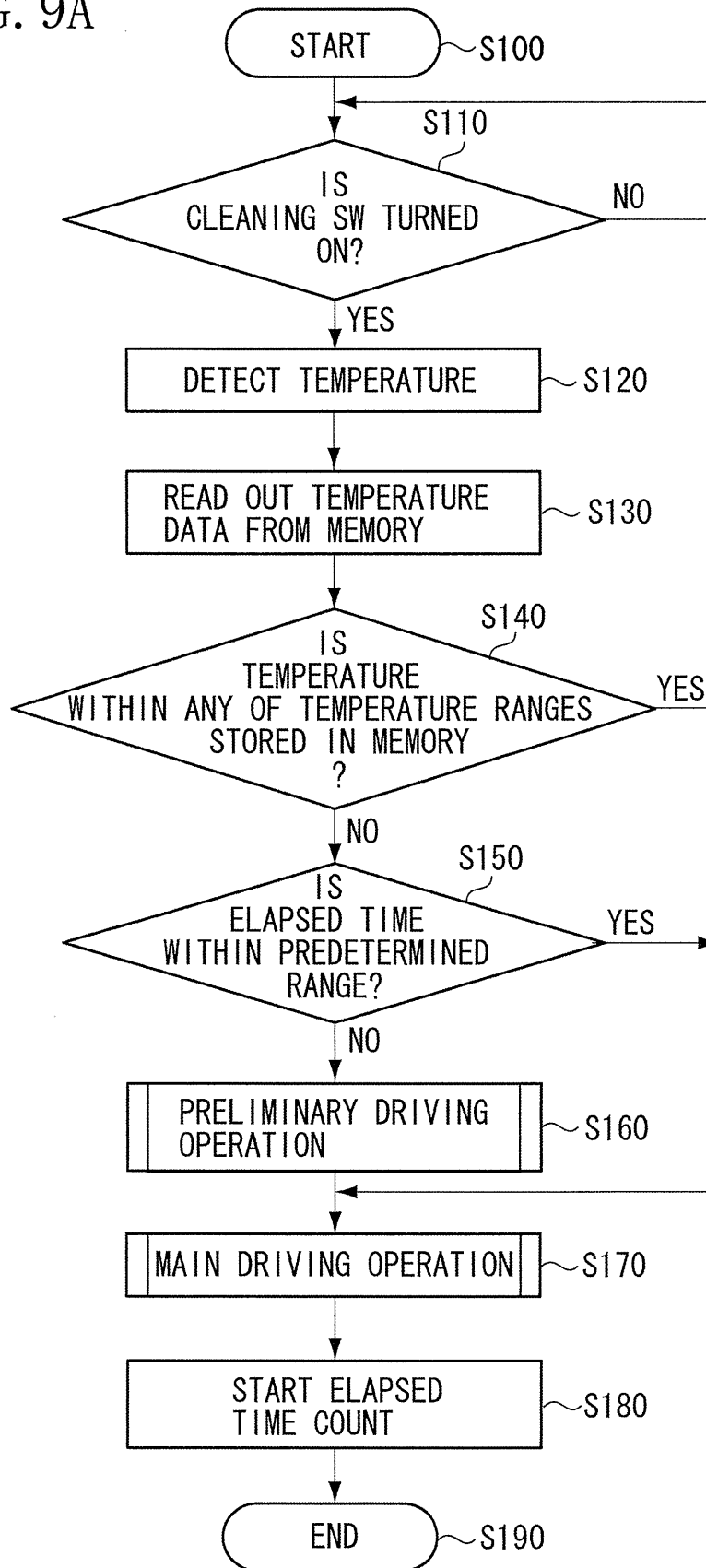


FIG. 9B

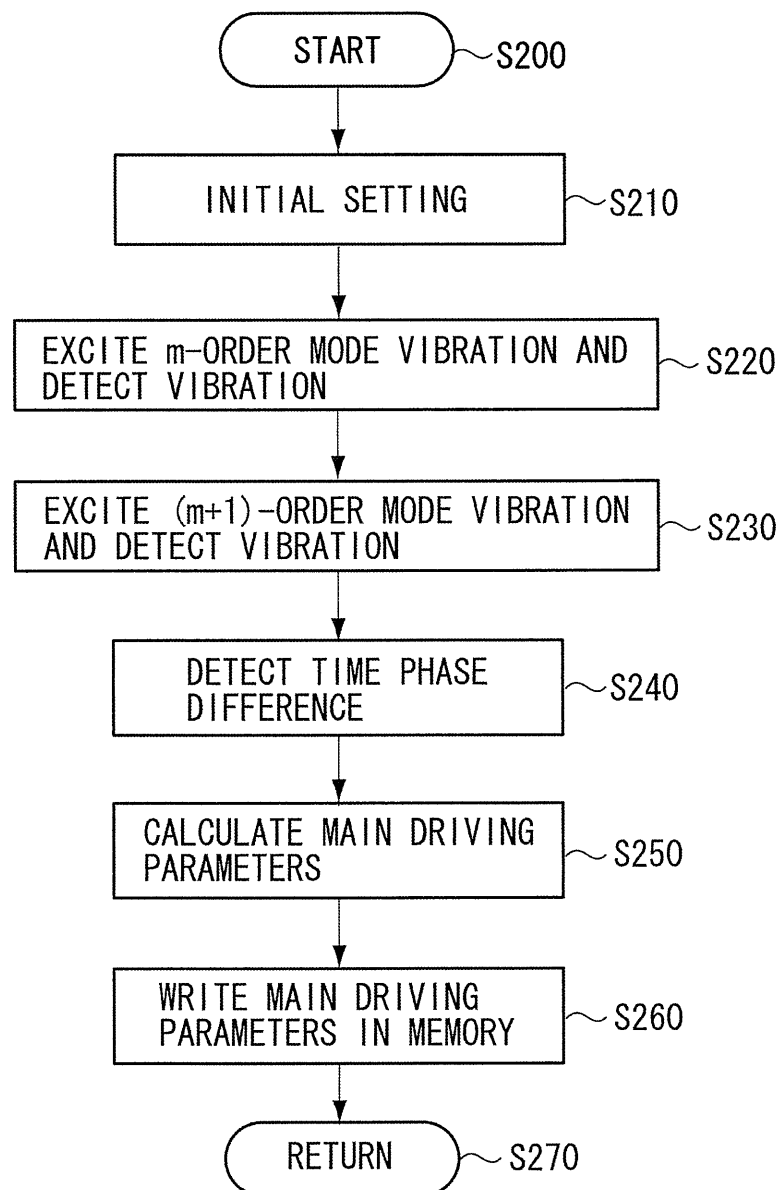


FIG. 9C

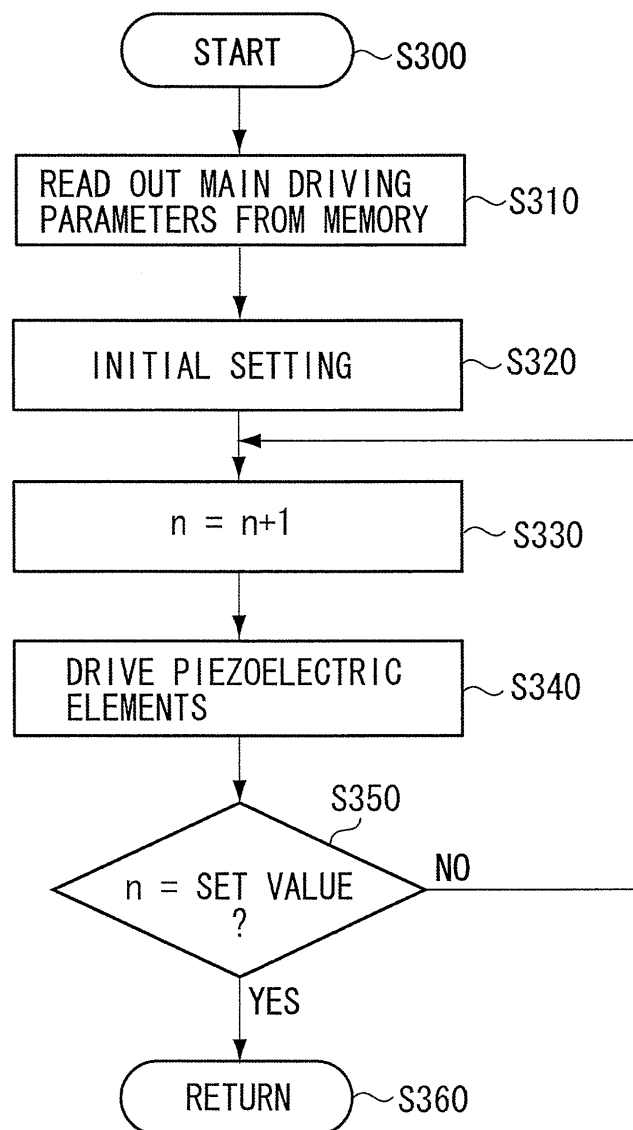


FIG. 10

