

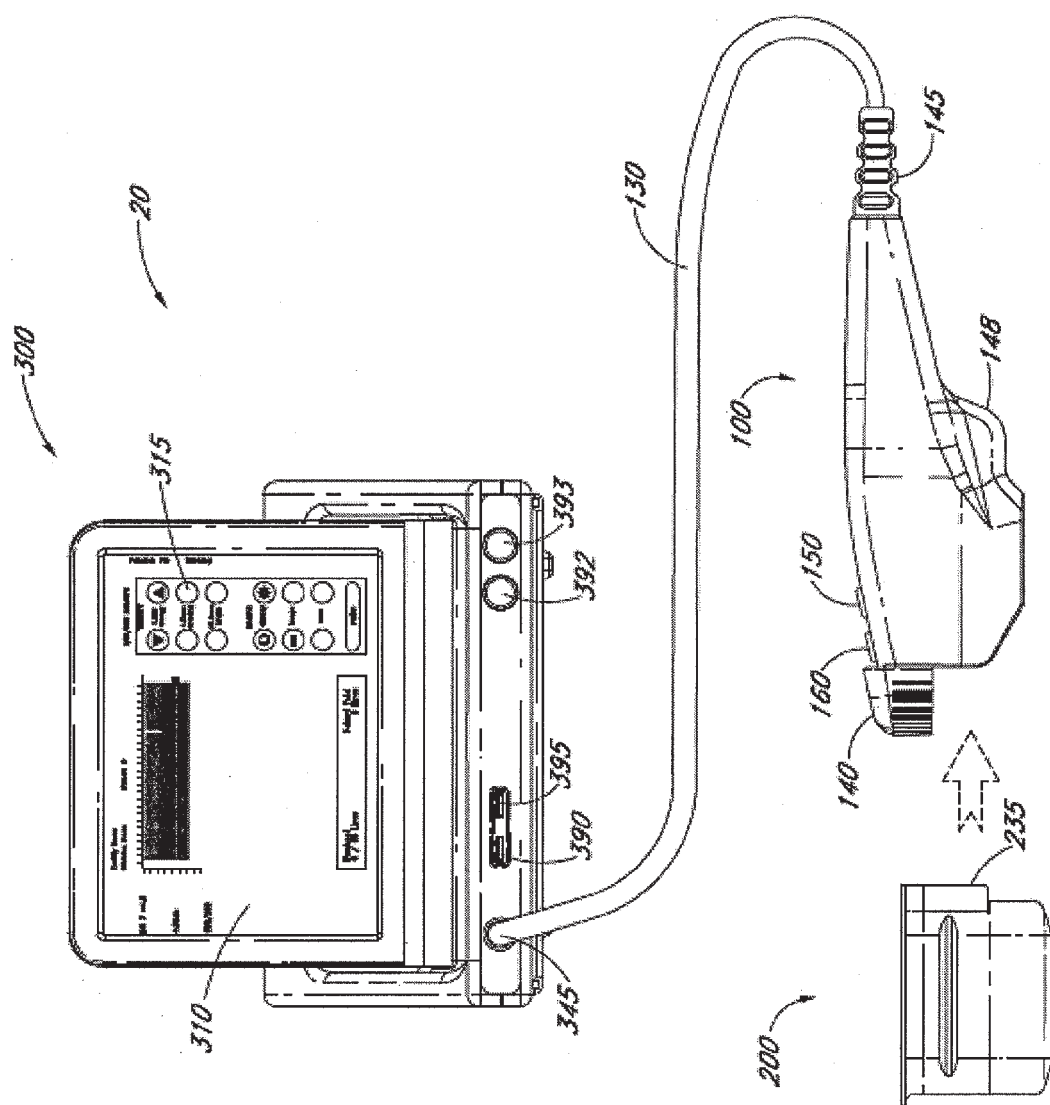


FIG. 1

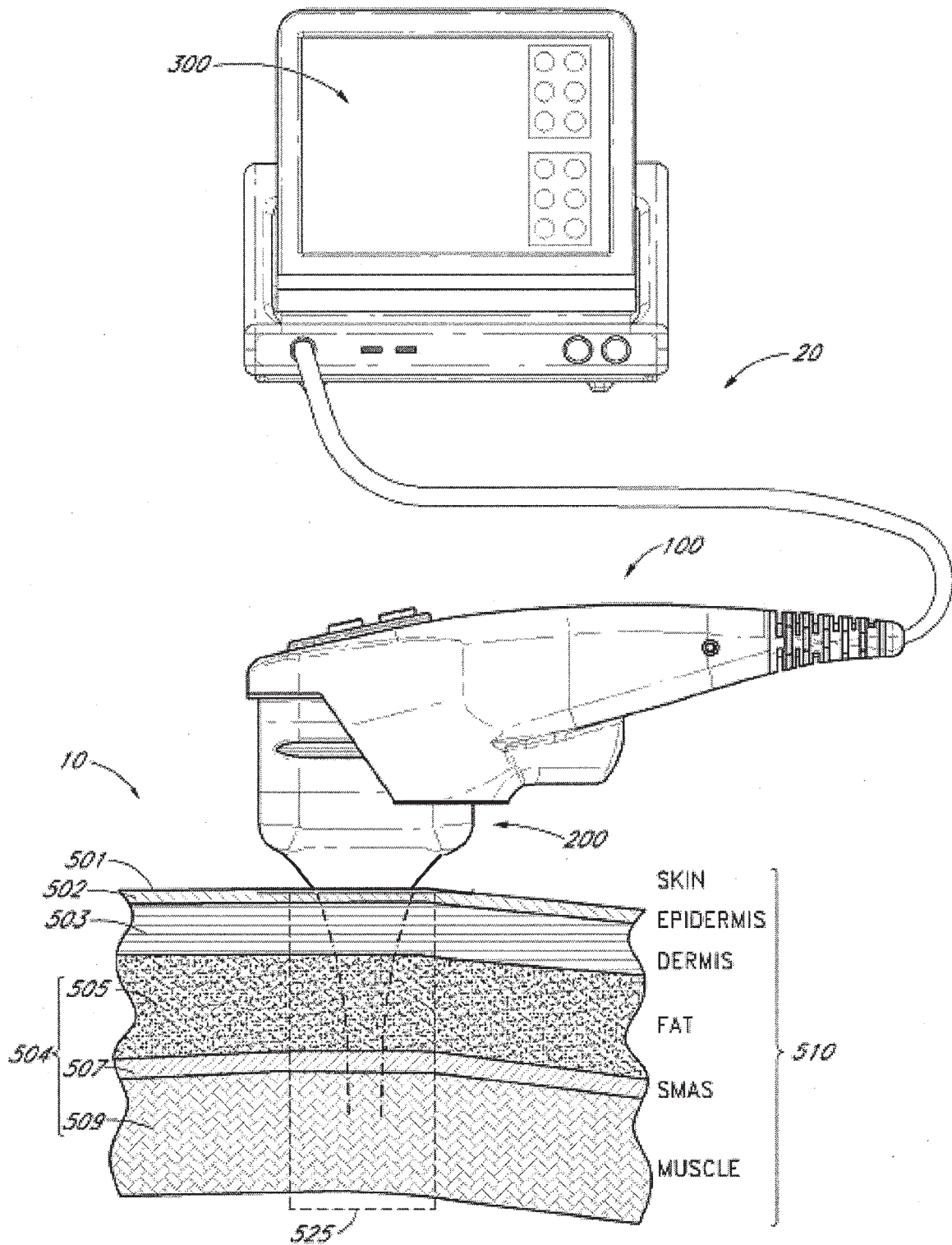
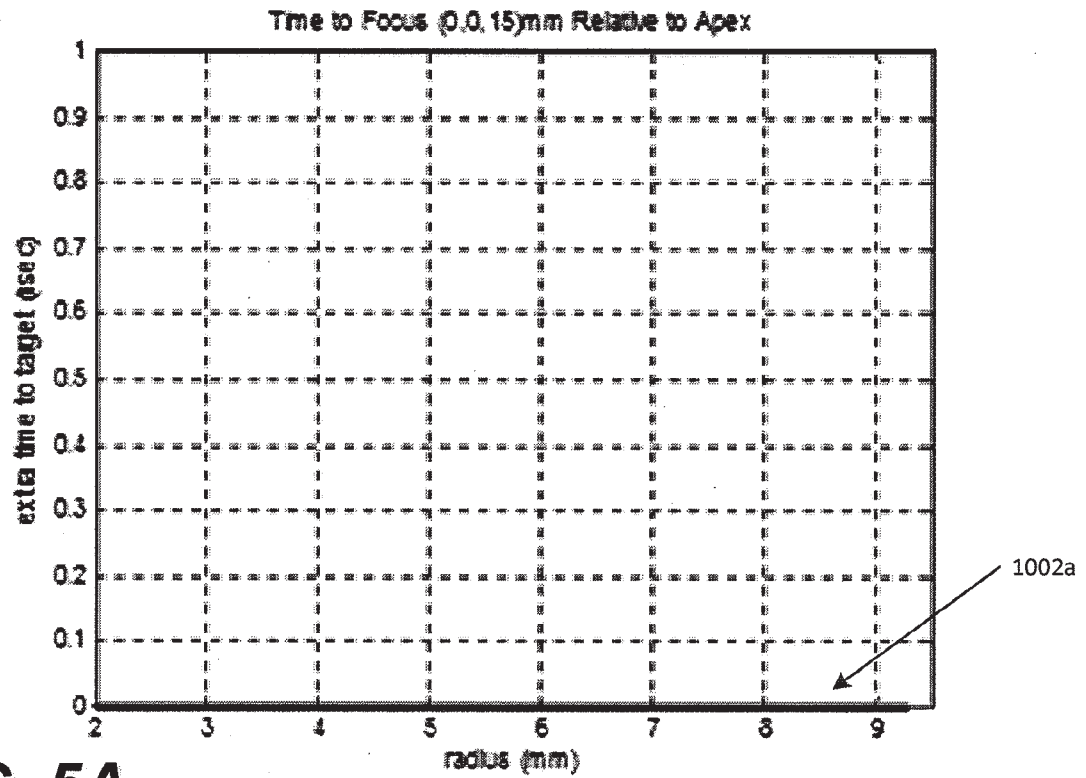
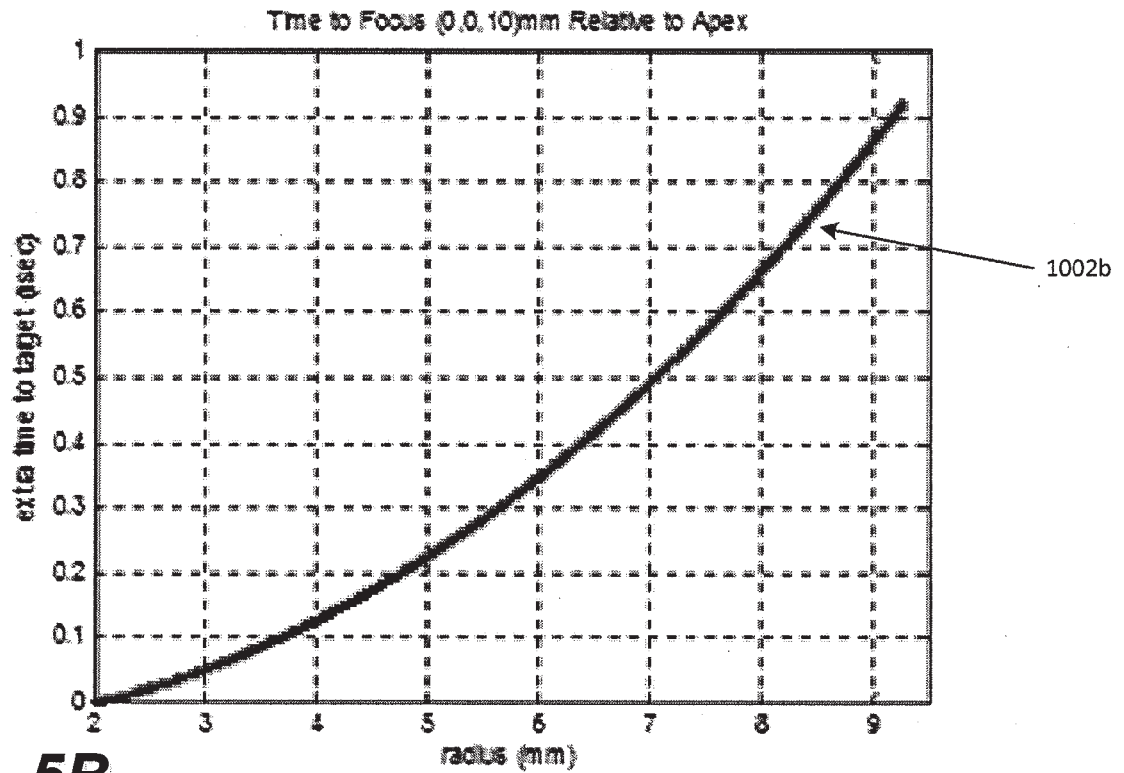
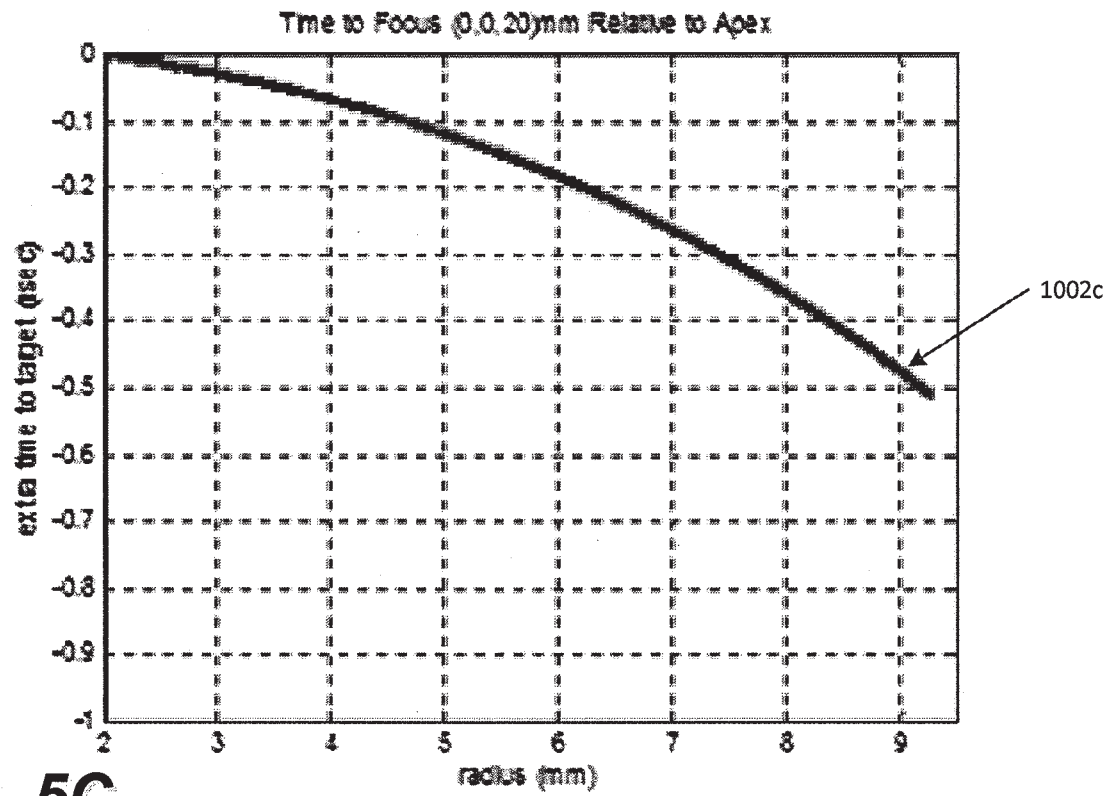
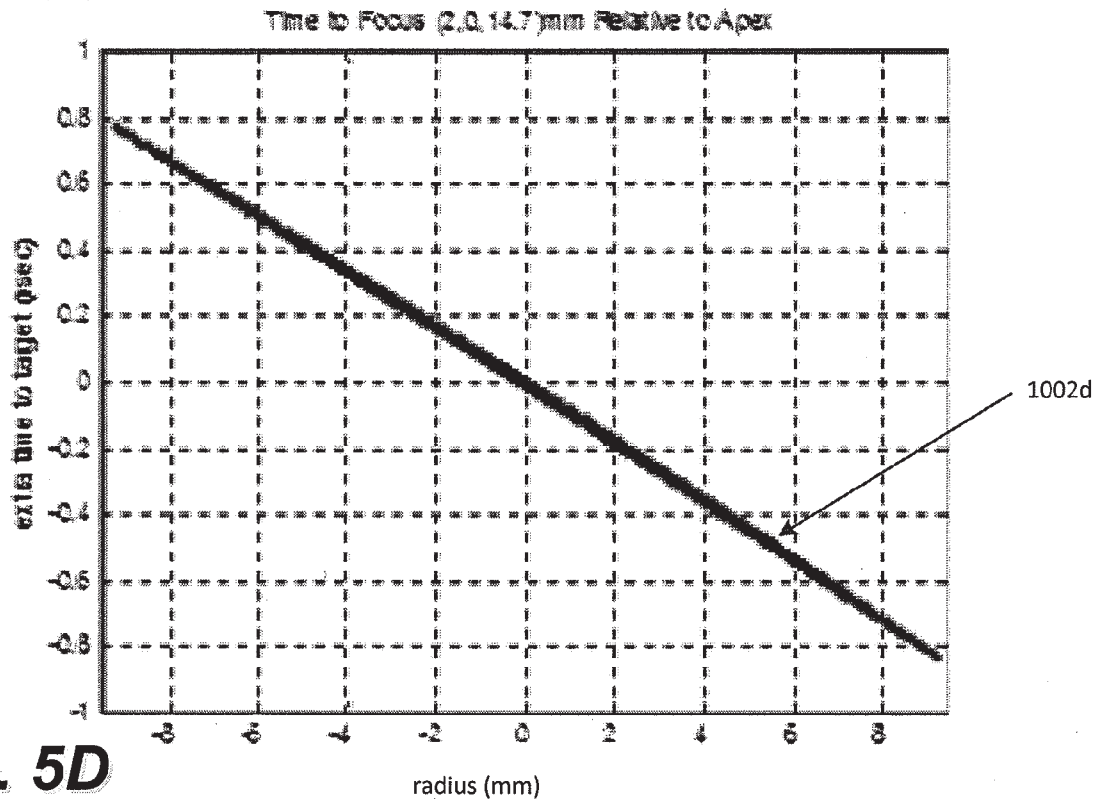
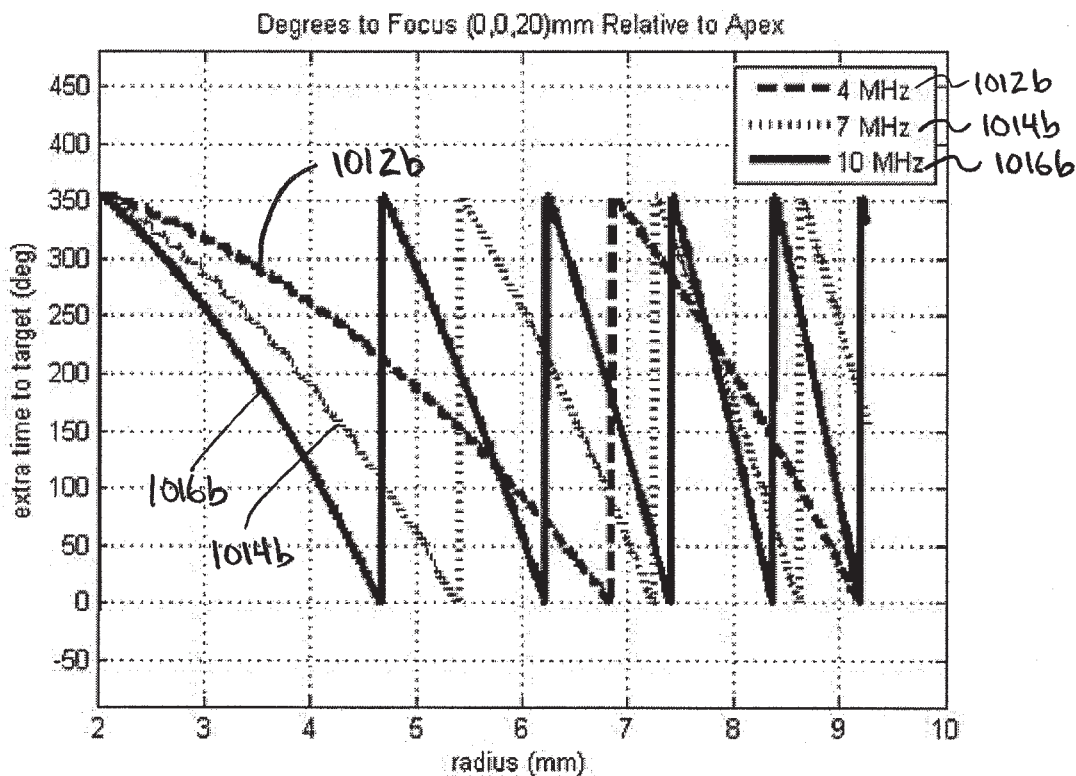
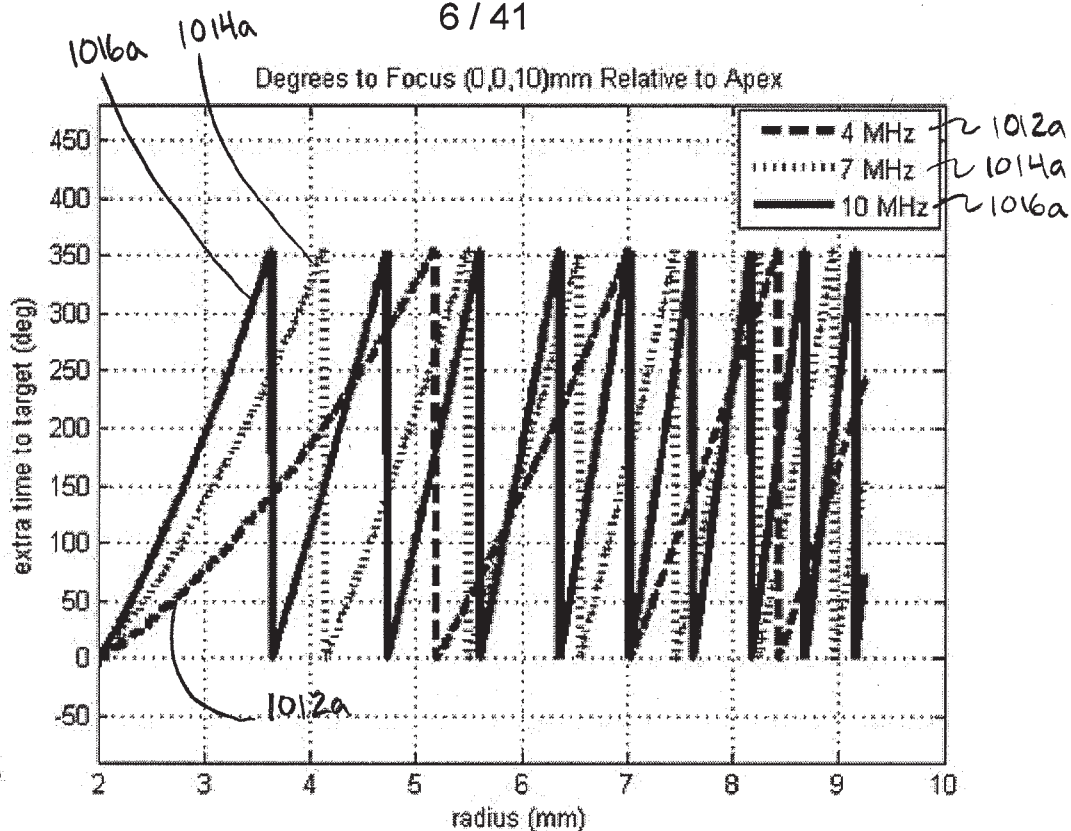


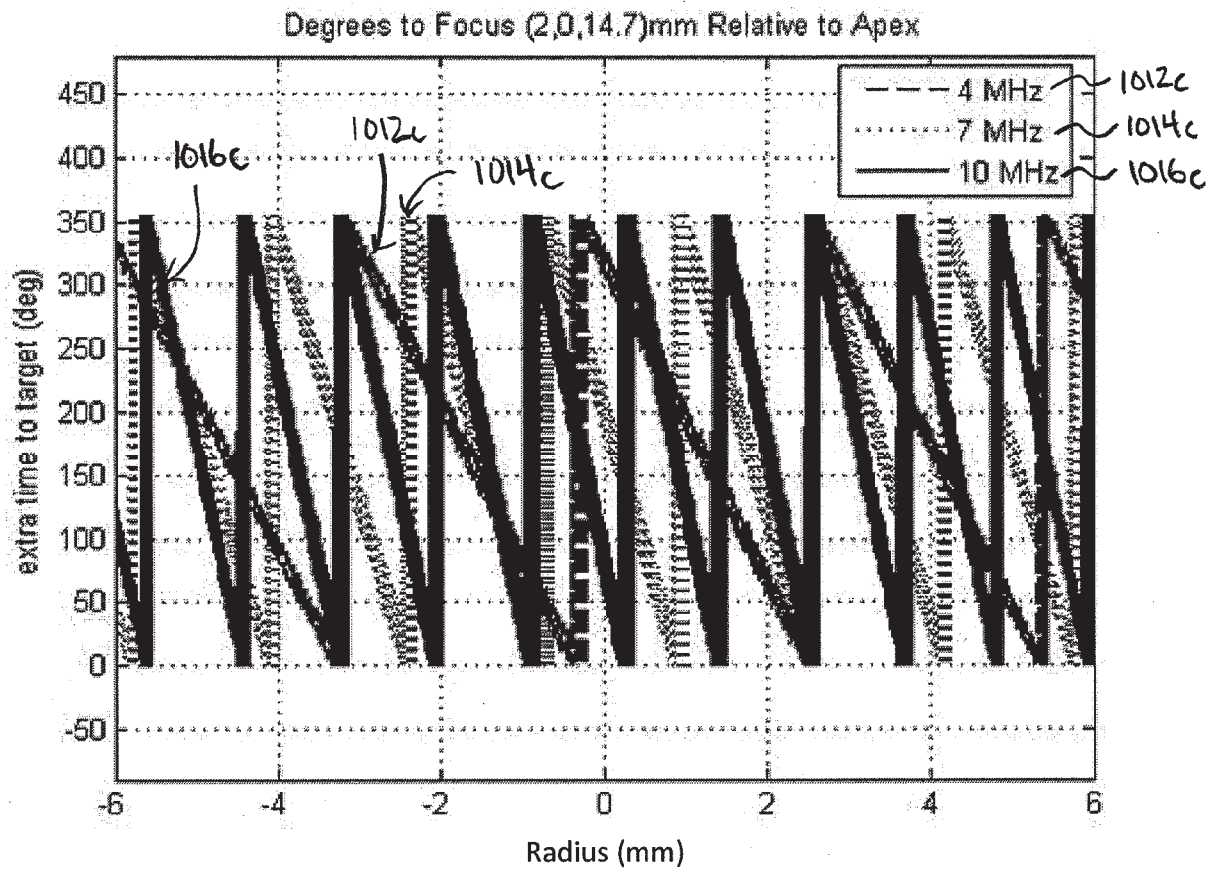
FIG. 2



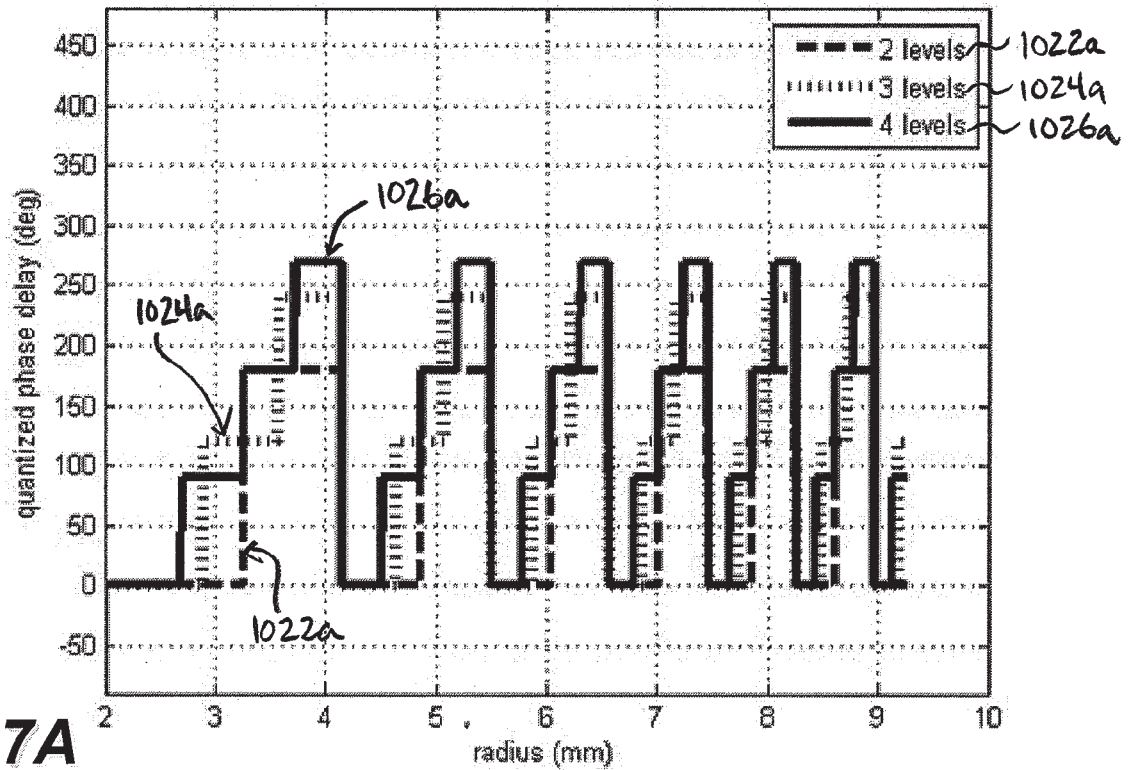
**FIG. 5A****FIG. 5B**

**FIG. 5C****FIG. 5D**

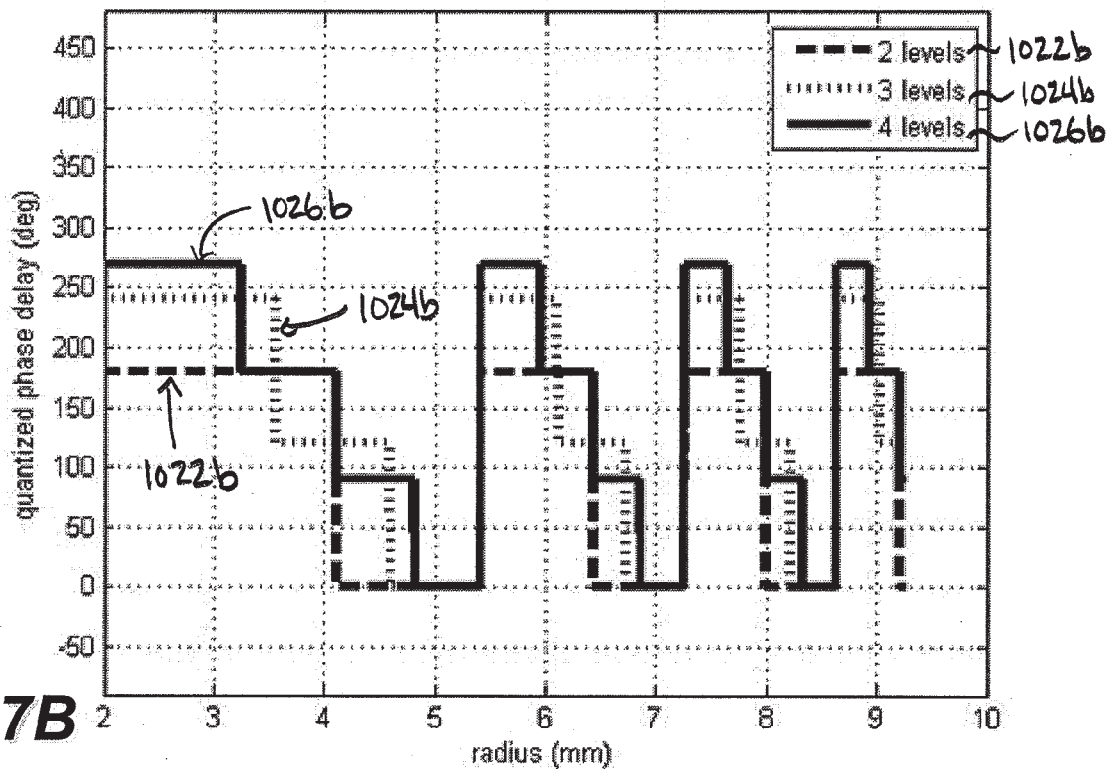


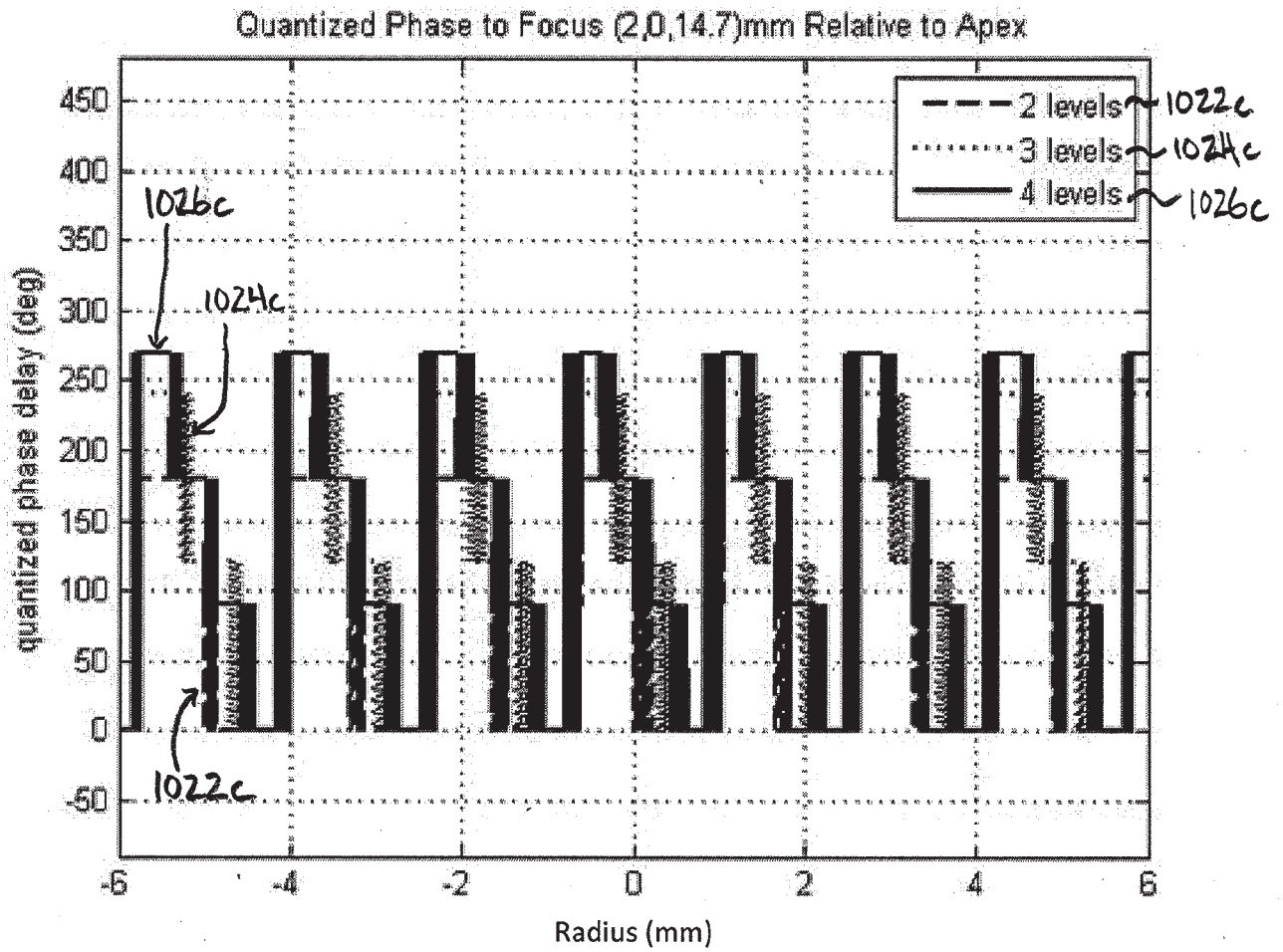
**FIG. 6C**

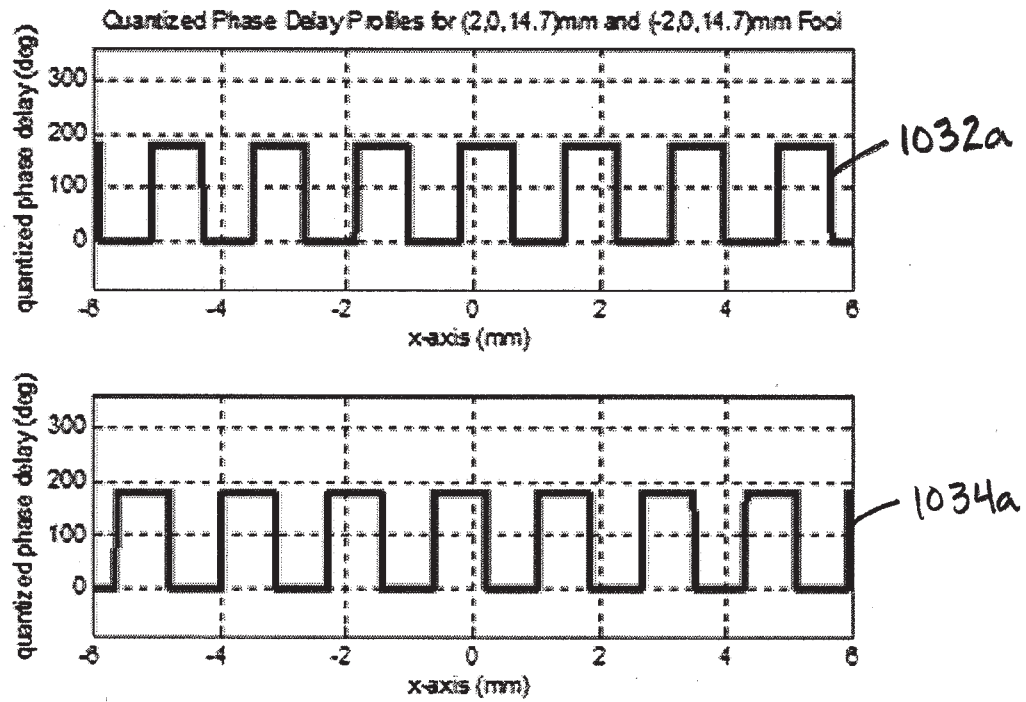
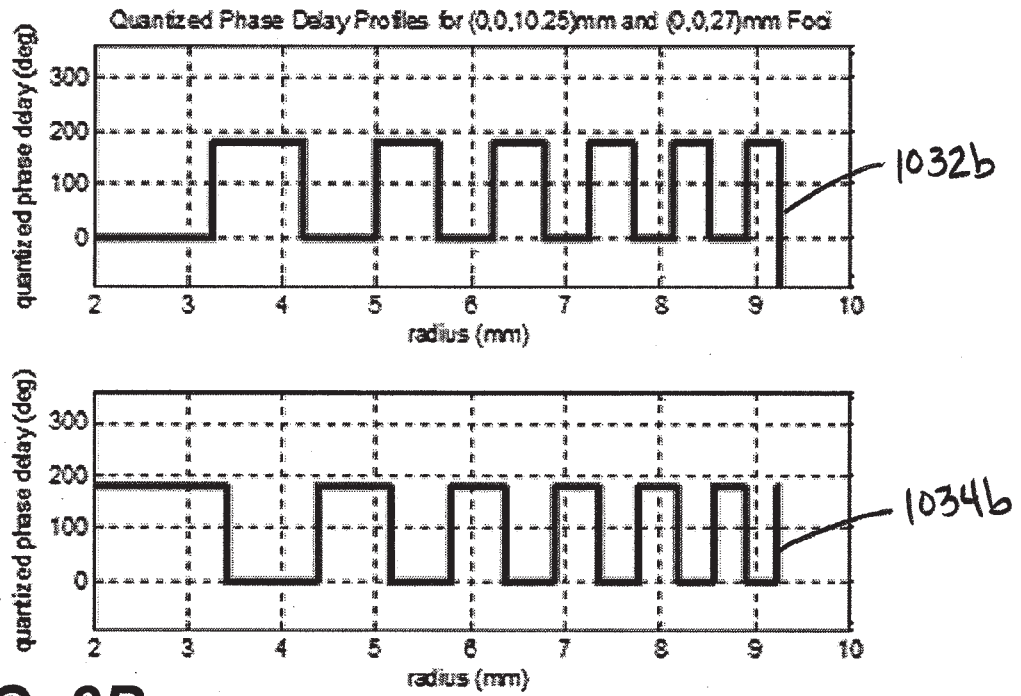
Quantized Phase to Focus (0,0,10)mm Relative to Apex

**FIG. 7A**

Quantized Phase to Focus (0,0,20)mm Relative to Apex

**FIG. 7B**

**FIG. 7C**

**FIG. 8A****FIG. 8B**

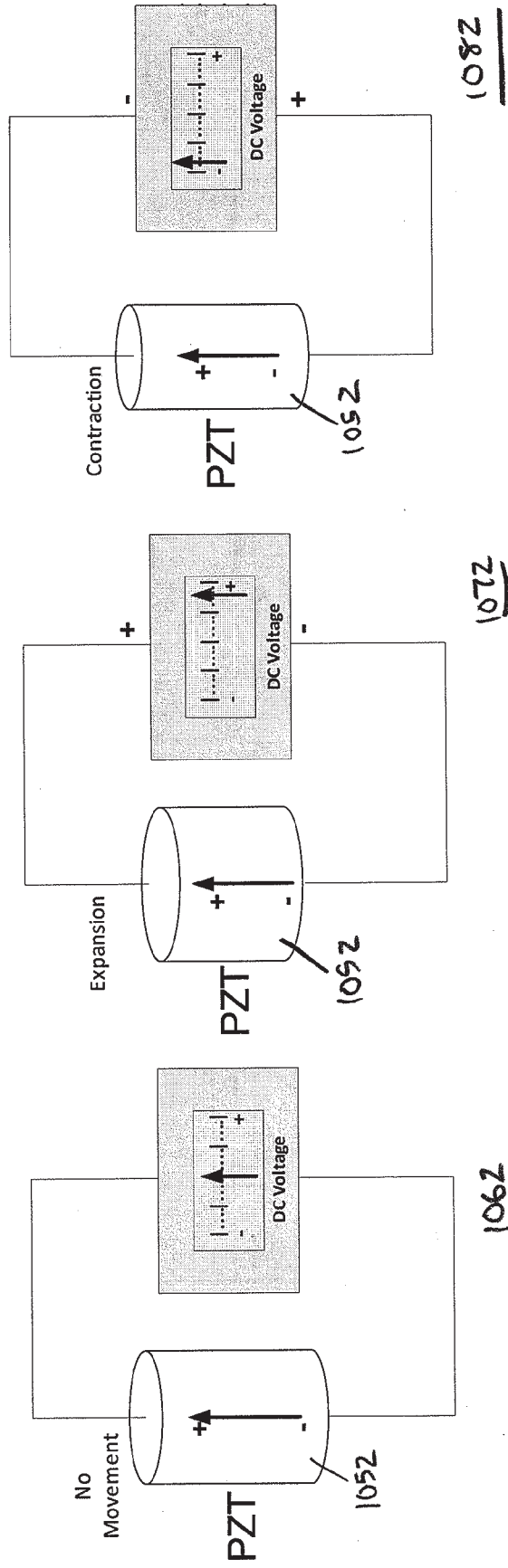
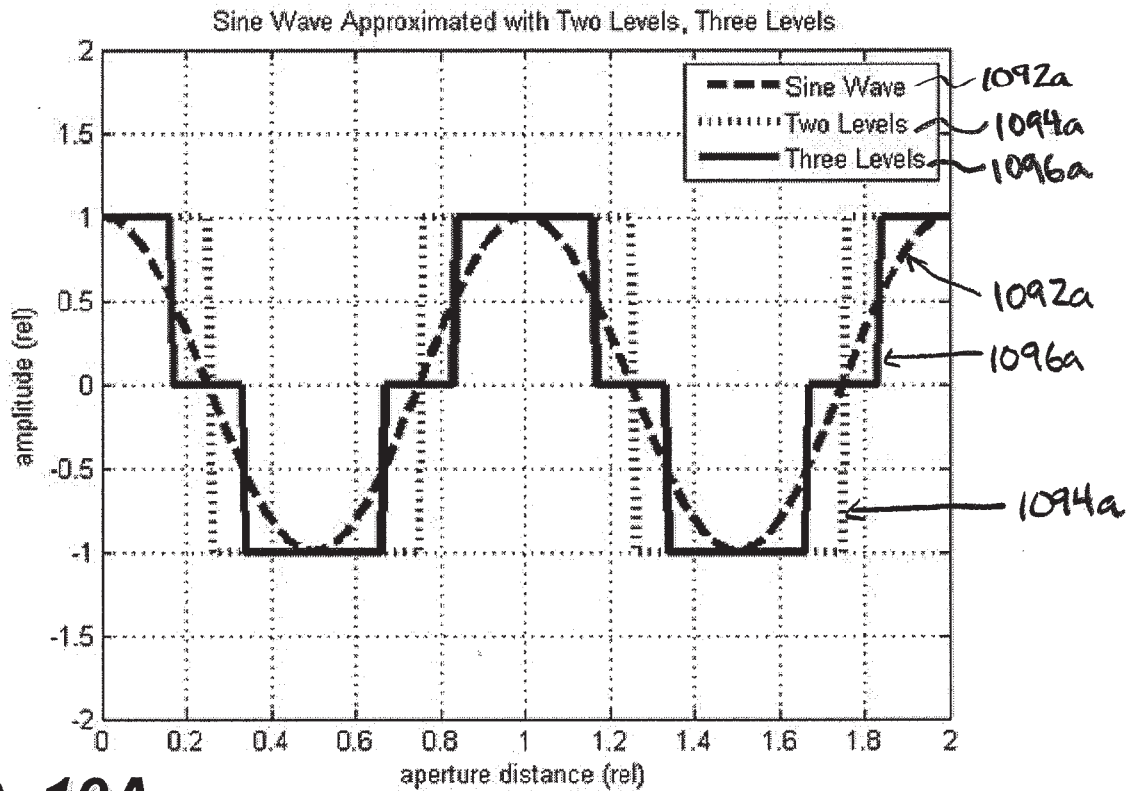
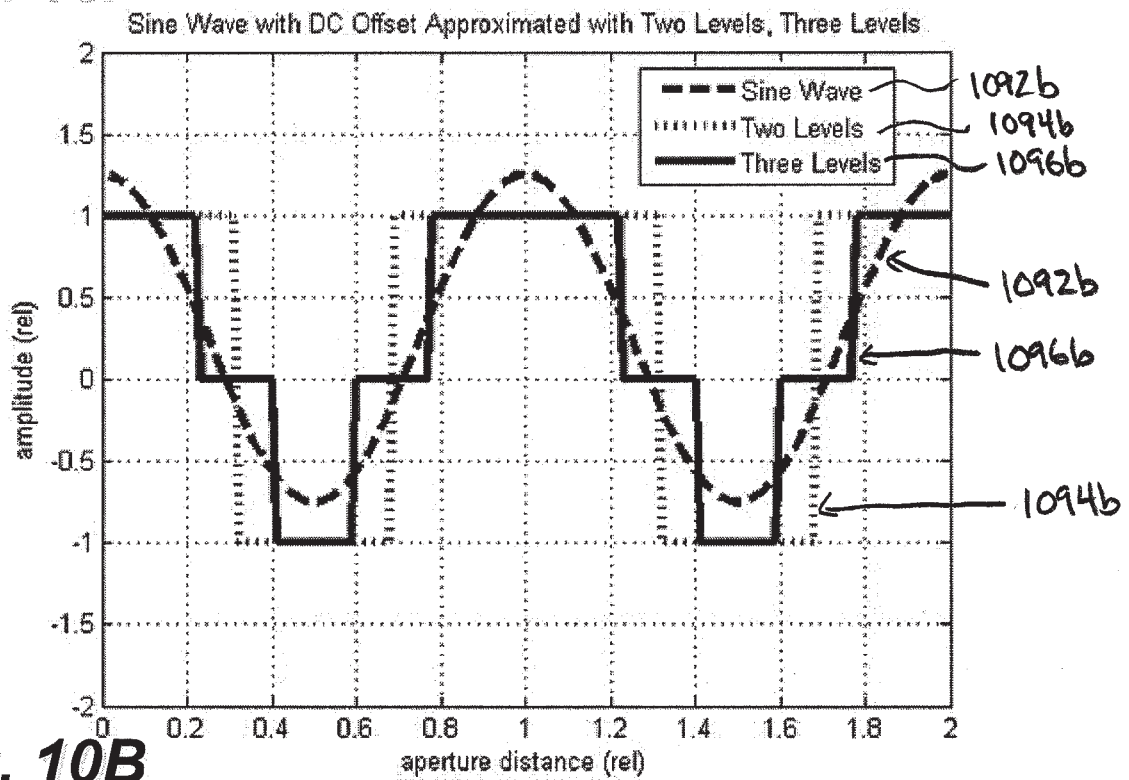


FIG. 9

**FIG. 10A****FIG. 10B**

13 / 41

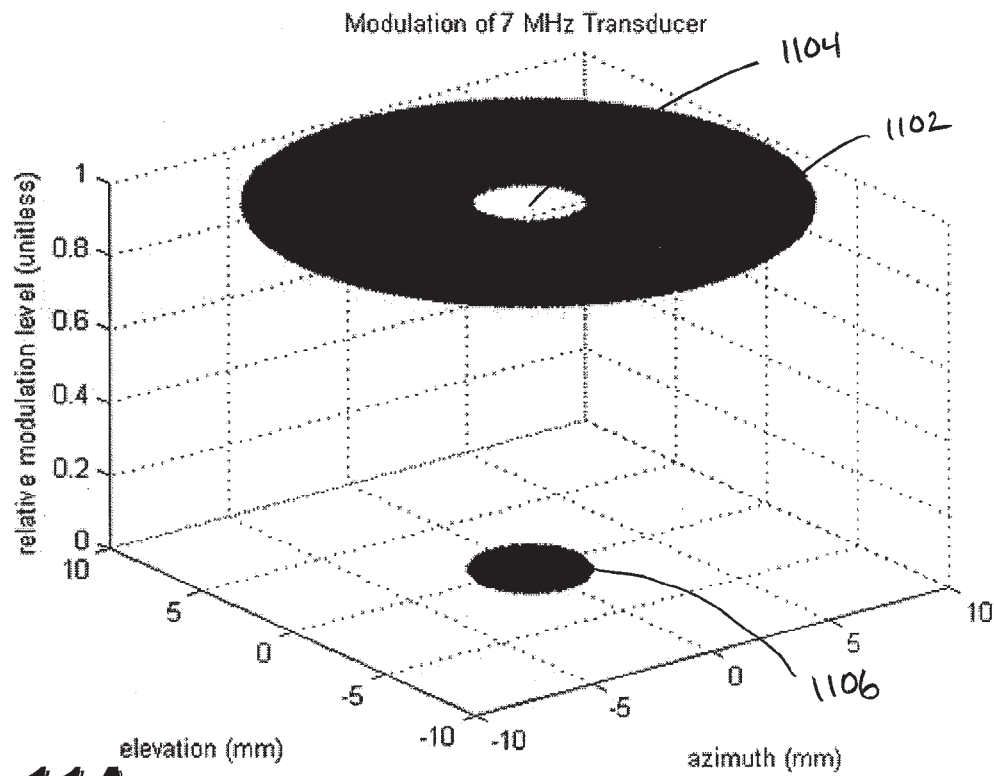


FIG. 11A

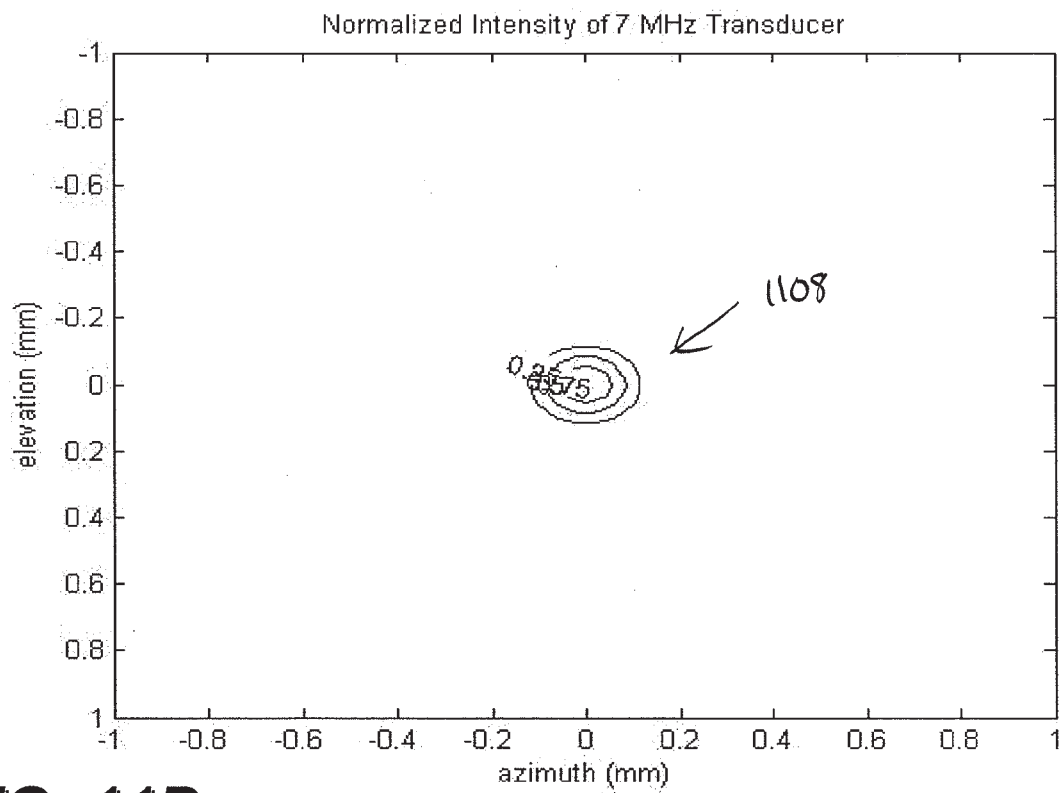


FIG. 11B

14 / 41

Modulation of Lateral Split (0.55 mm) 7 MHz Transducer

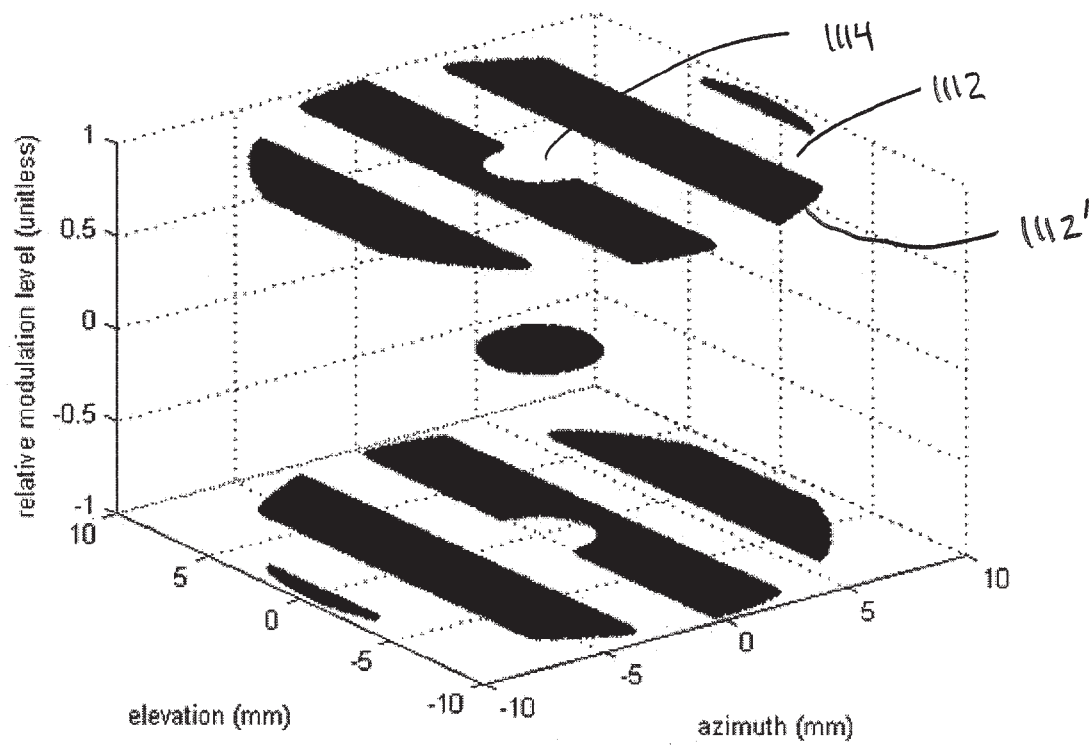


FIG. 11C

Normalized Intensity of Lateral Split (0.55 mm) 7 MHz Transducer

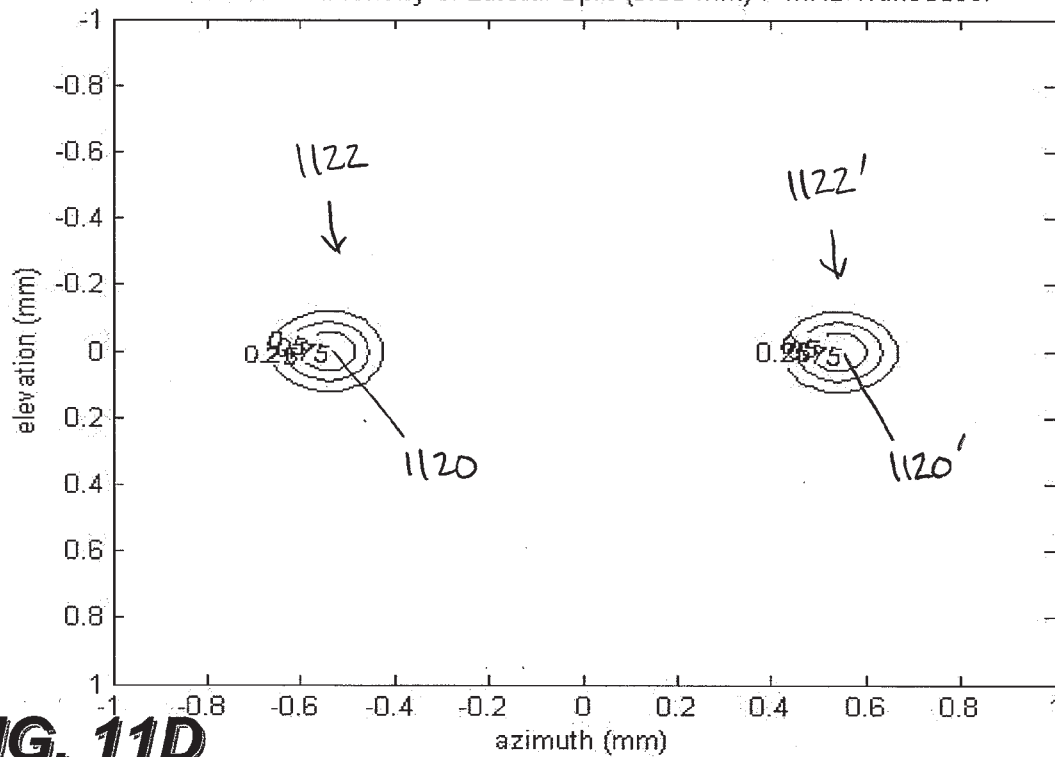
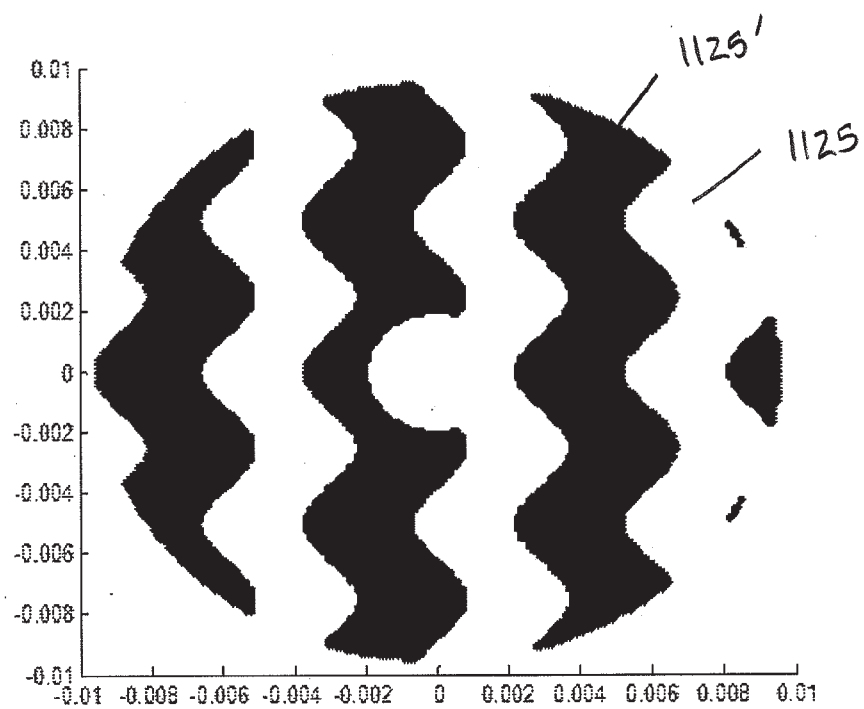
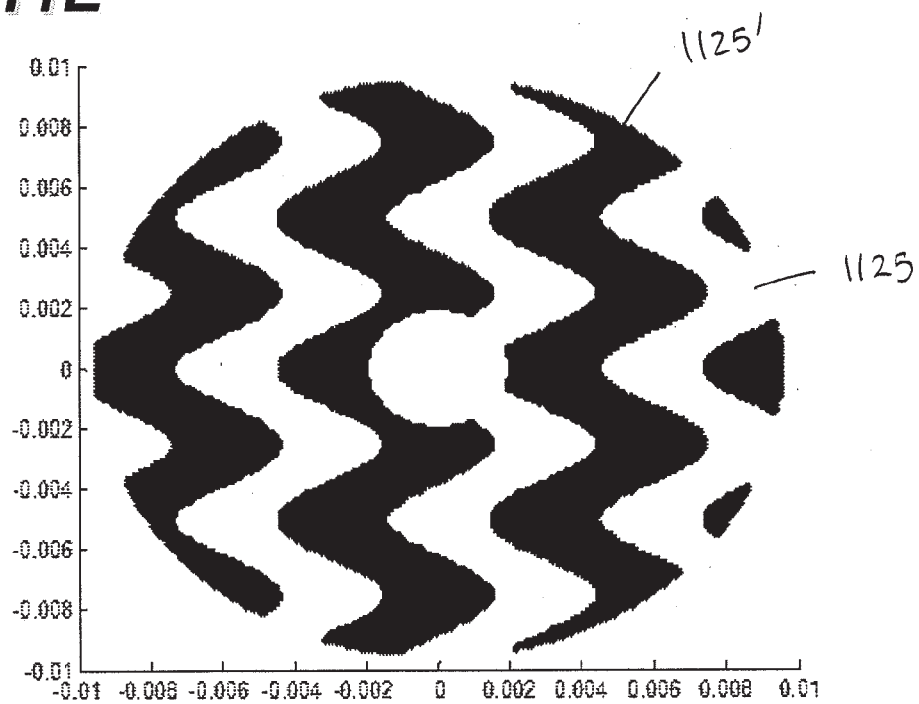


FIG. 11D

**FIG. 11E****FIG. 11F**

16 / 41

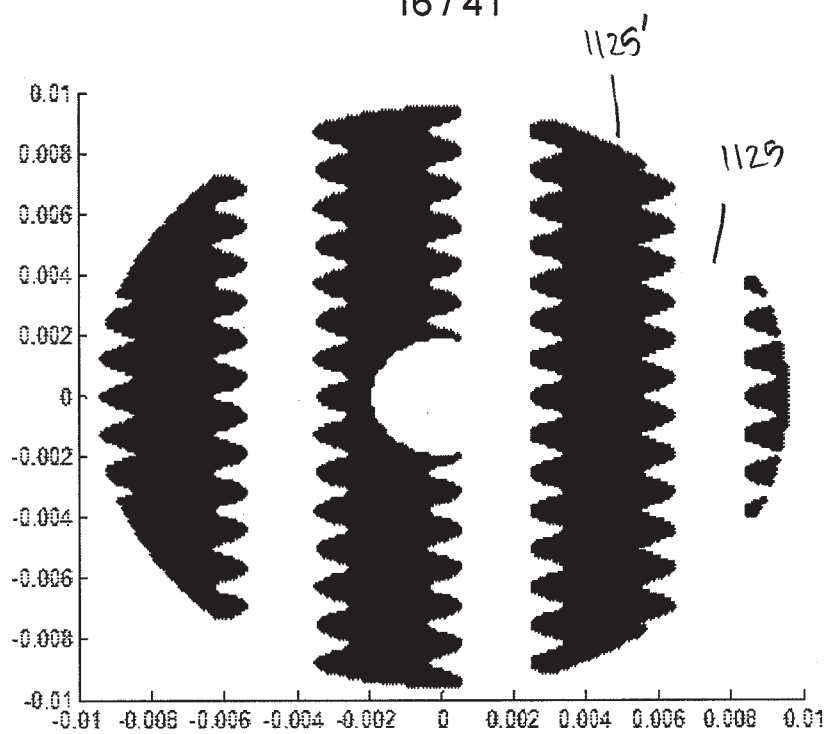


FIG. 11G

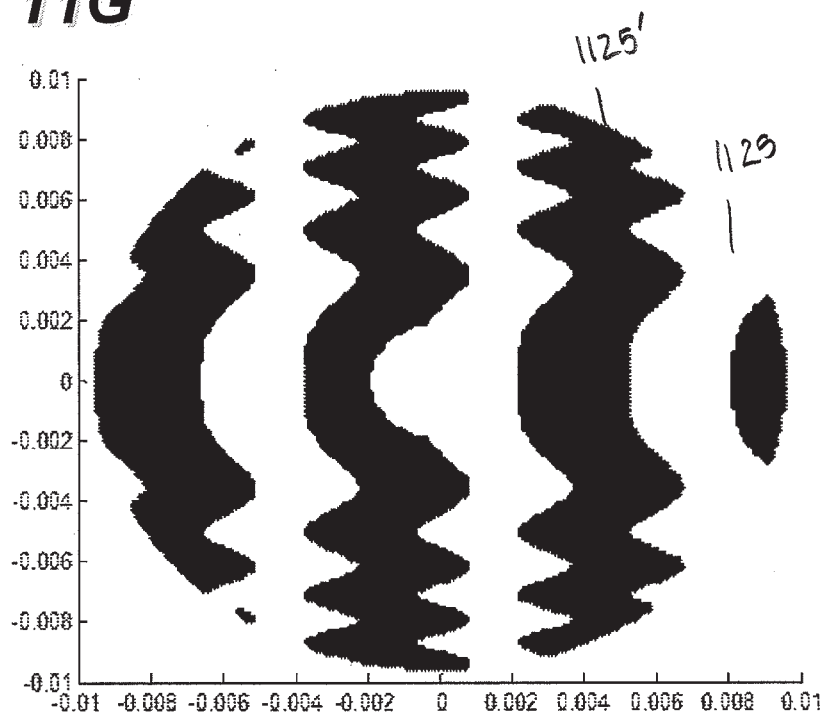


FIG. 11H

17 / 41

Apodization of Lateral Split (0.55 mm in x, 0.25 mm in y) 7 MHz Transducer

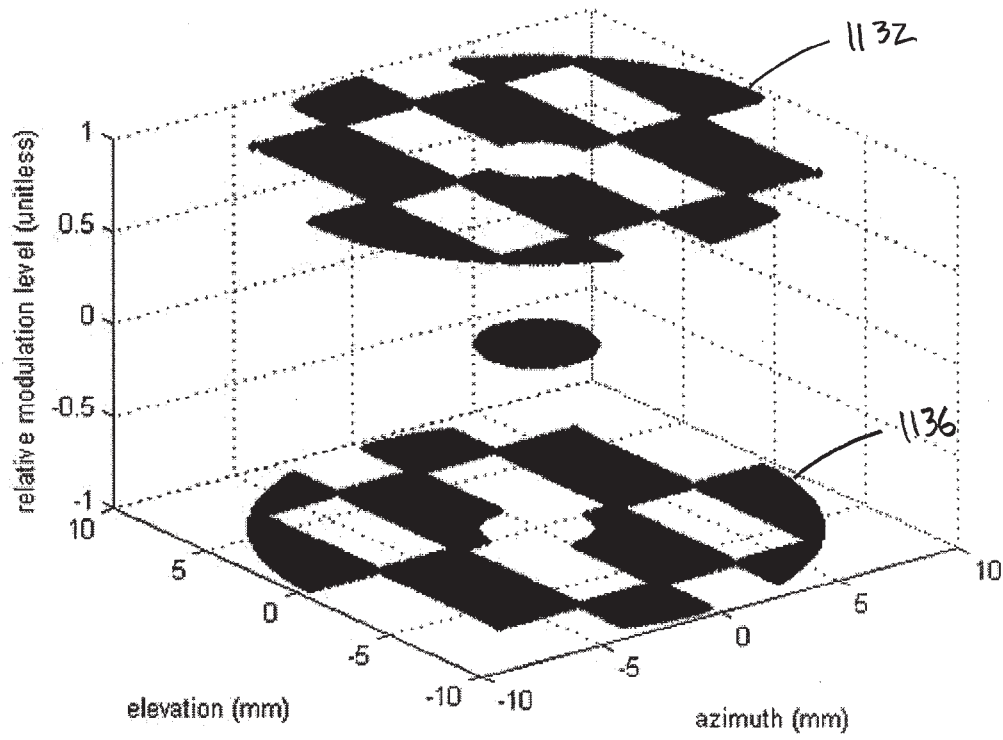


FIG. 12A

Normalized Intensity of Lateral Split (0.55 mm in x, 0.25 mm in y) 7 MHz Transducer

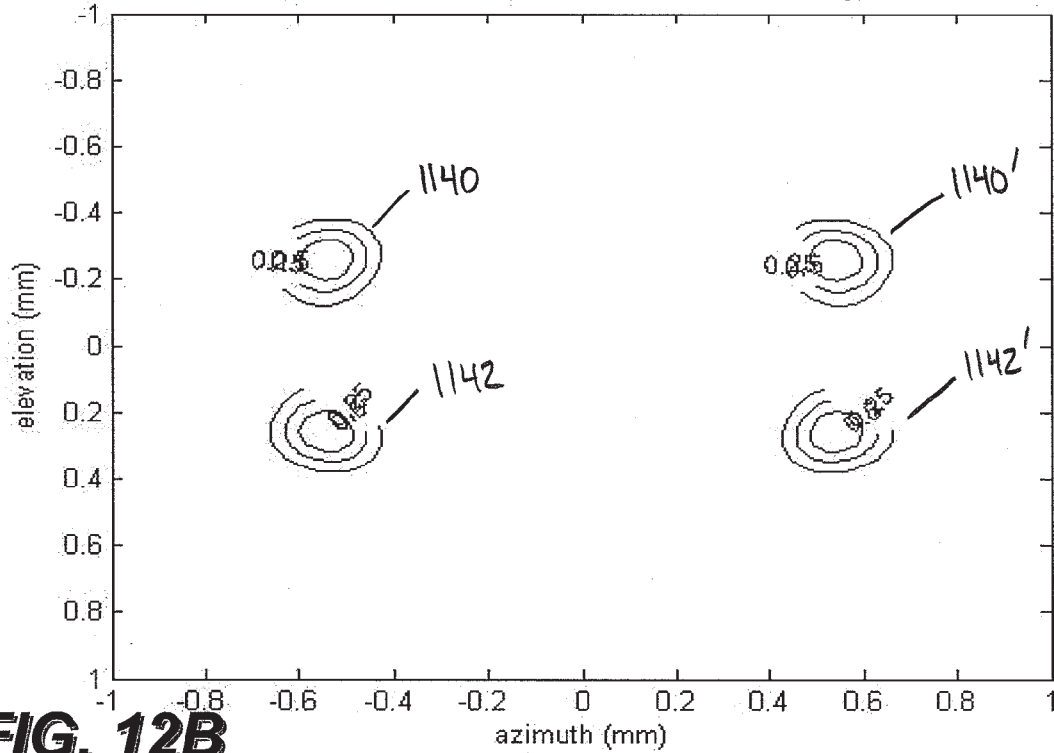
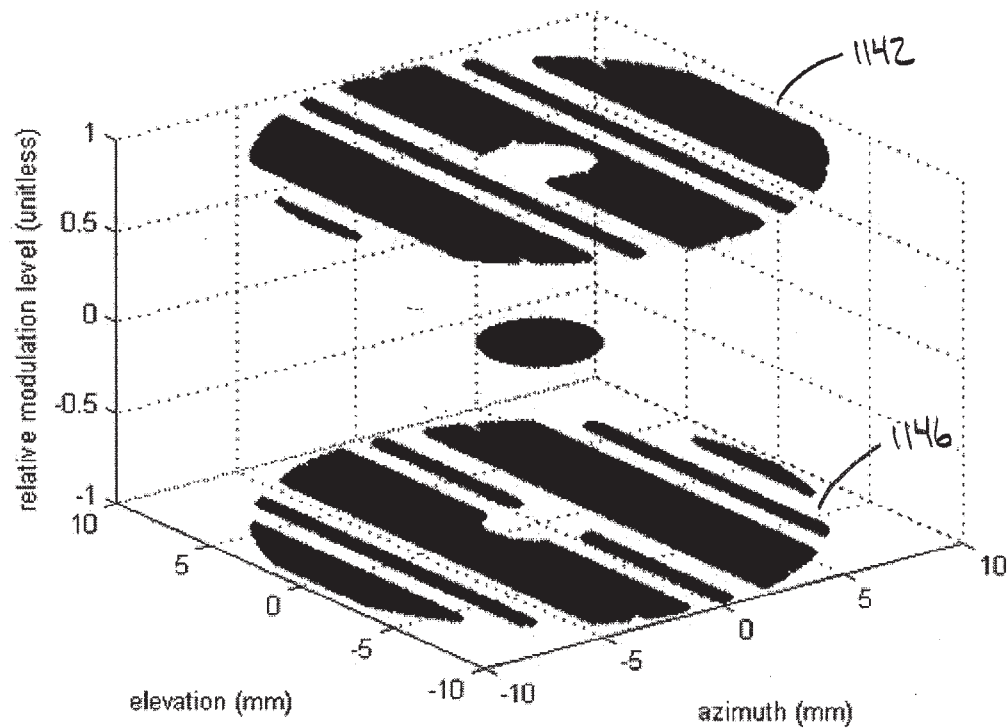
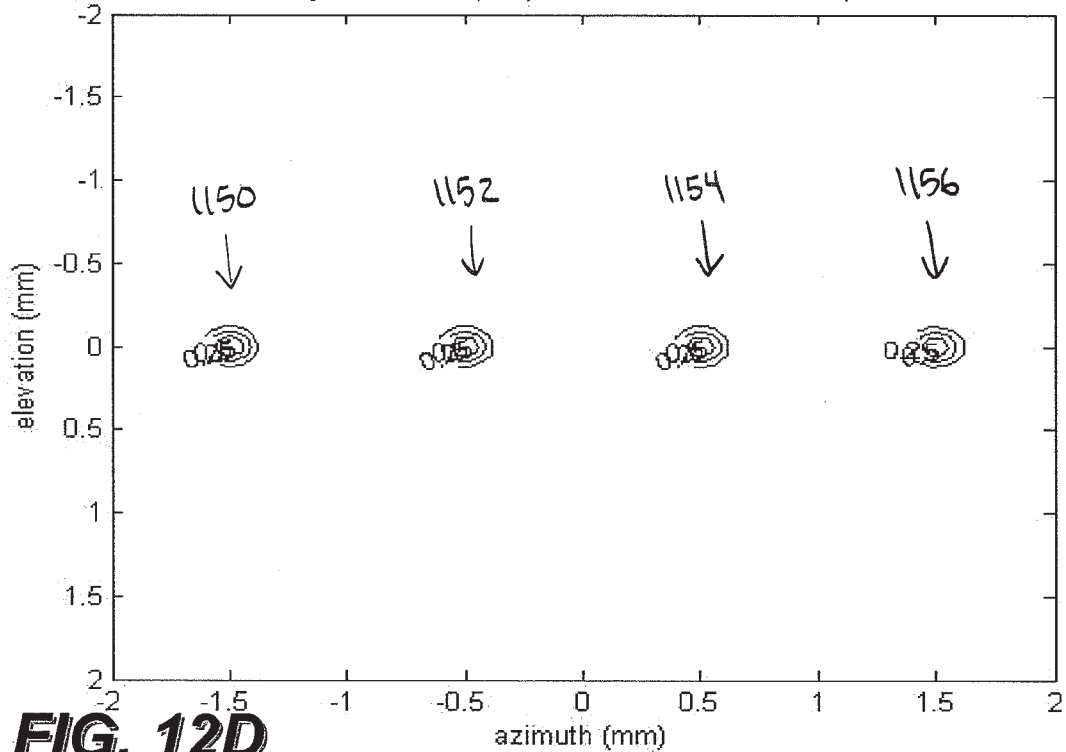


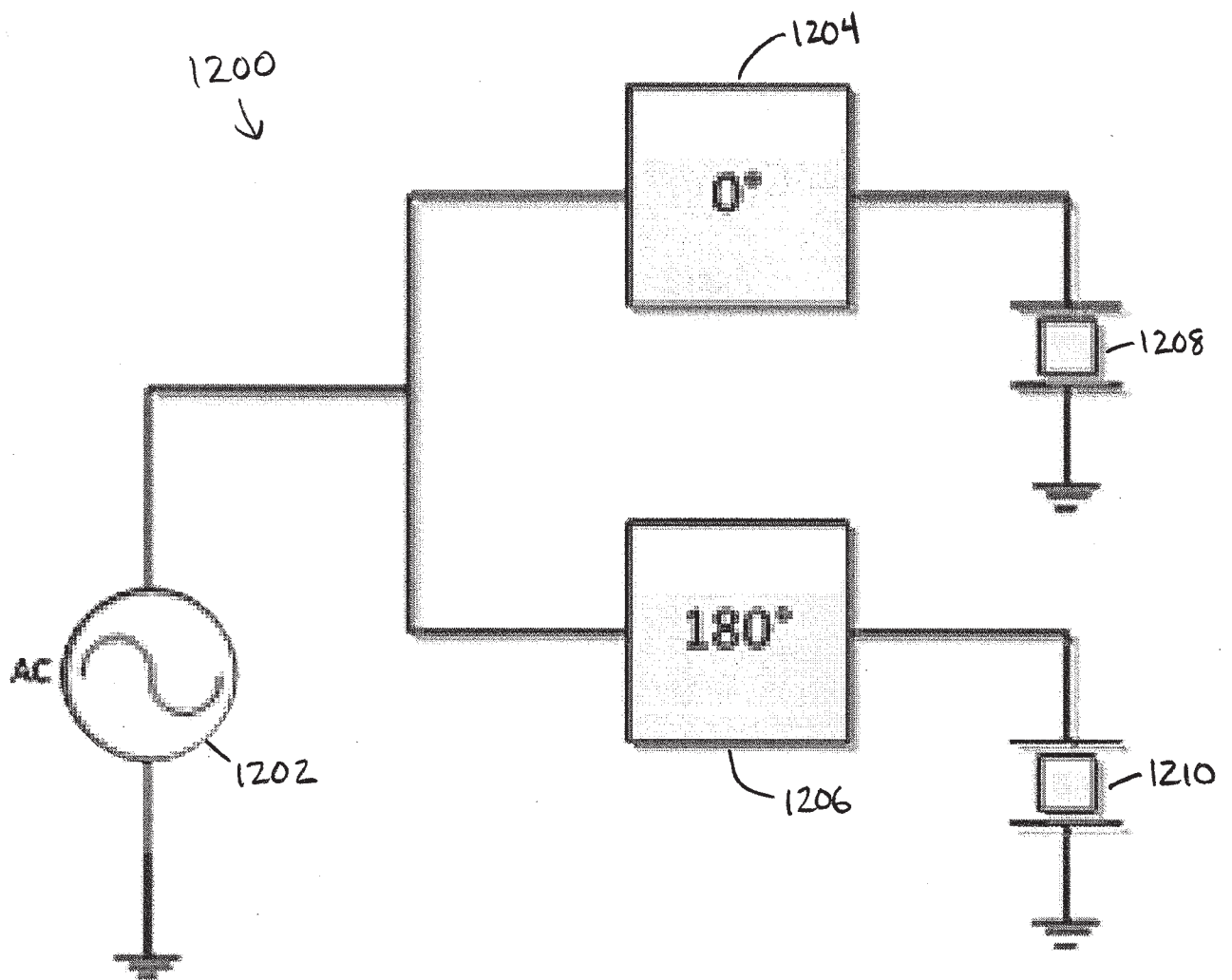
FIG. 12B

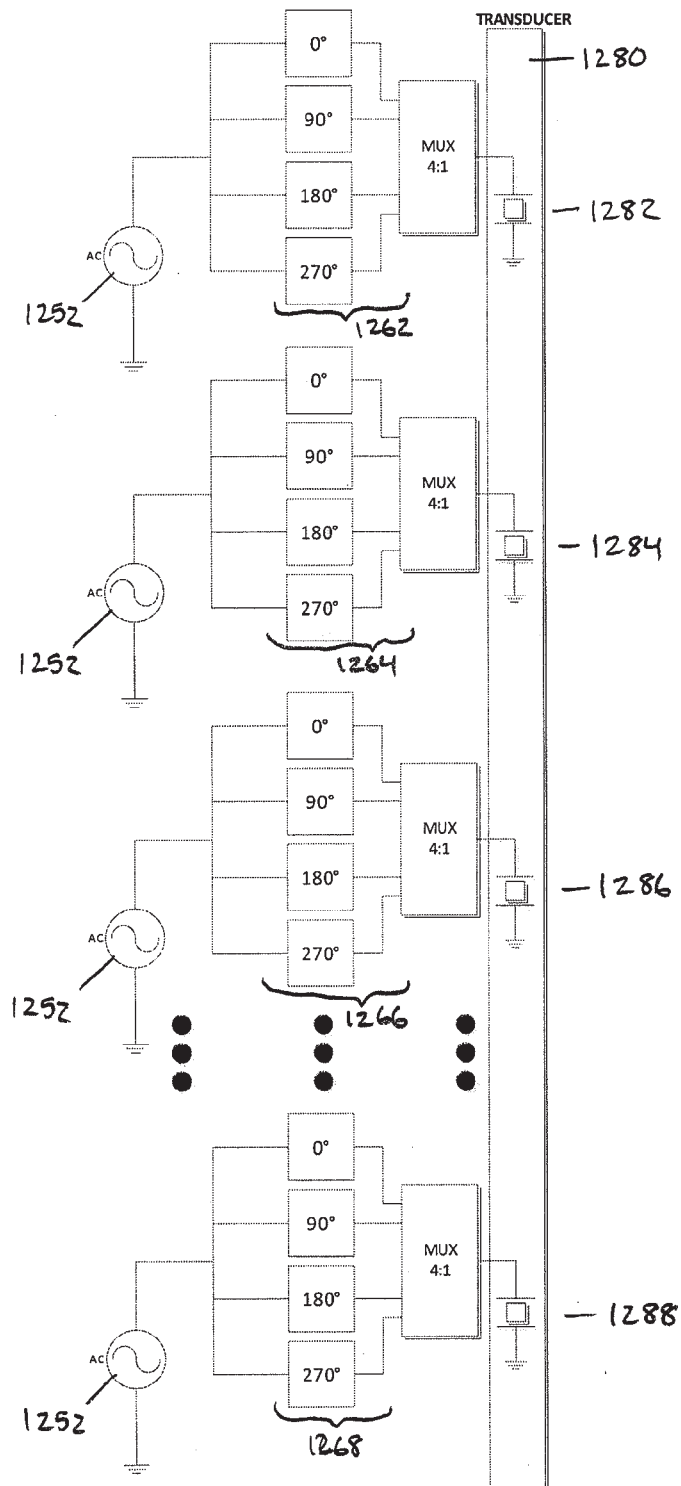
Modulation of Lateral Split (0.50 mm in x, 1.5 mm in x) 7 MHz Transducer

**FIG. 12C**

Normalized Intensity of Lateral Split (0.5 mm in x, 1.5 mm in x) 7 MHz Transducer

**FIG. 12D**

**FIG. 13**

1250
↓**FIG. 14**

Amplitude of Flat Transducer Relative to Bowl:

Focus 15 mm, OD 19 mm

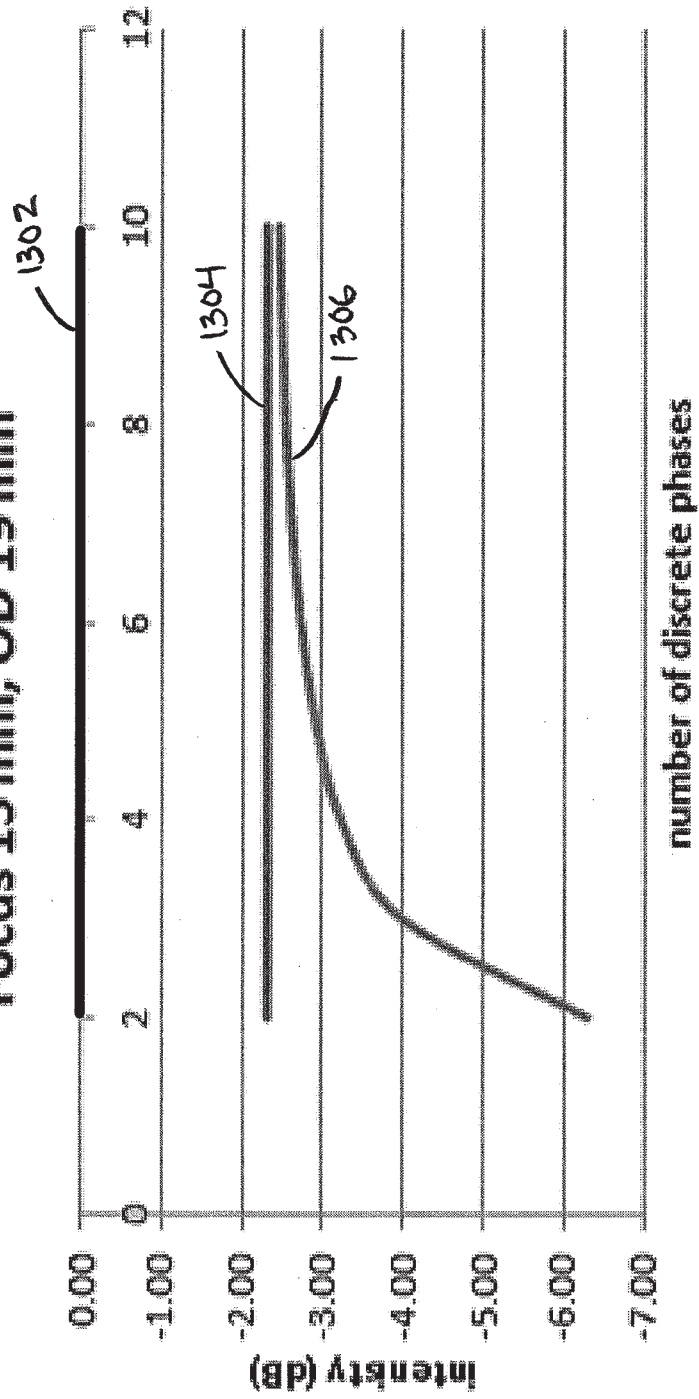
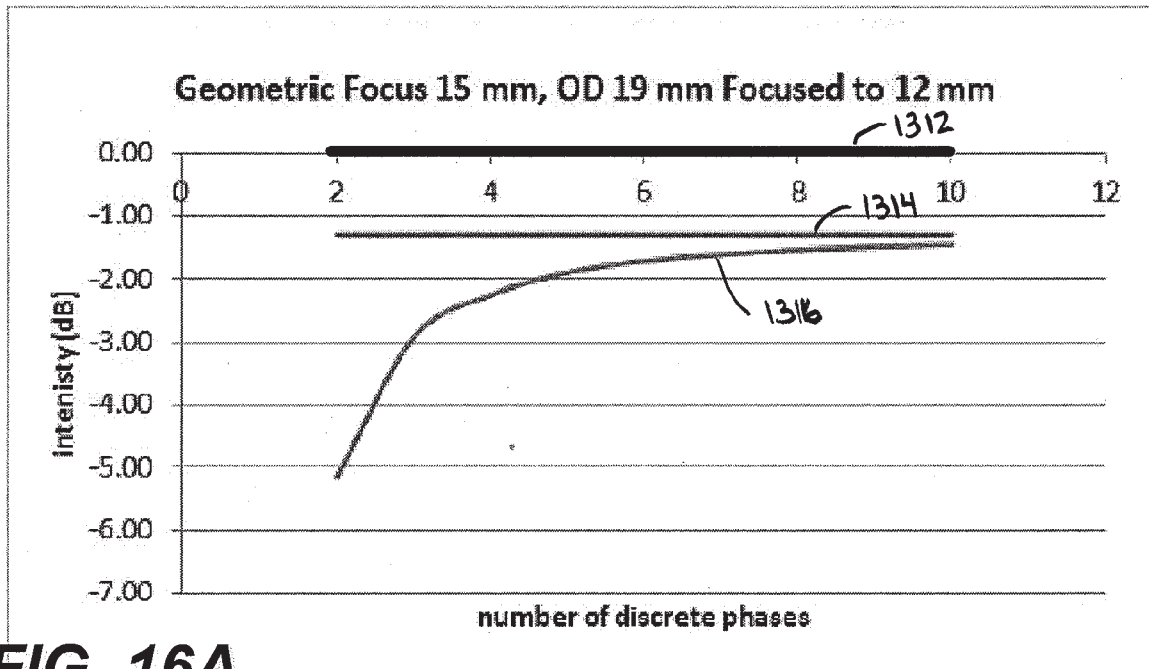
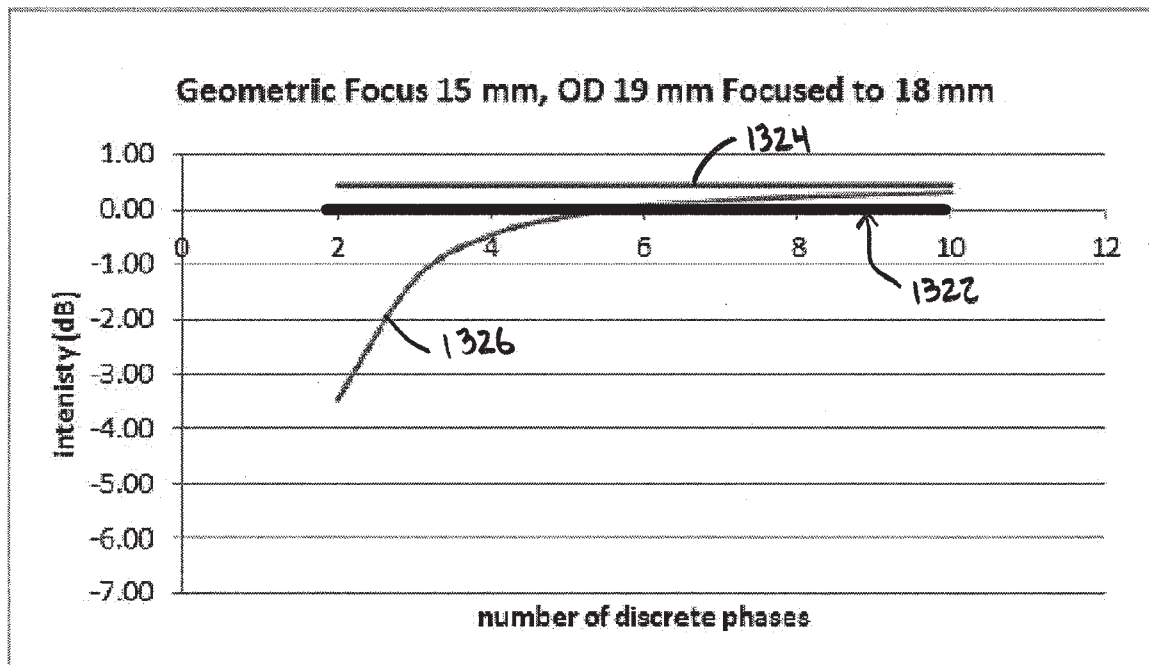


FIG. 15

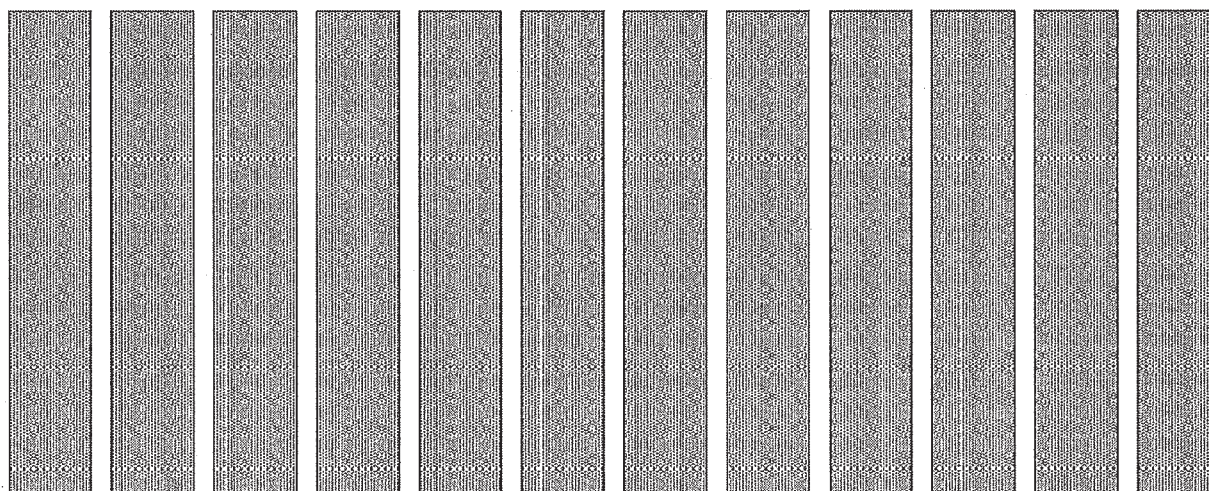
**FIG. 16A****FIG. 16B**

1400



23 / 41

APERTURE WITH FOCUS STRAIGHT AHEAD

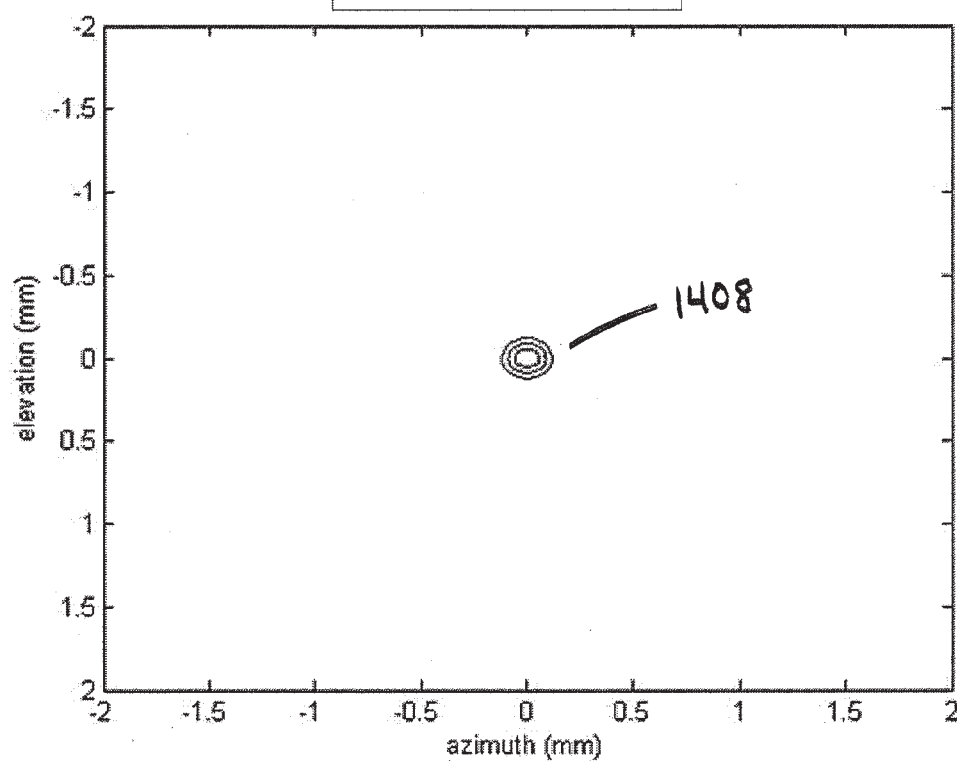


1402 1402 1402 ...

1402

KEY

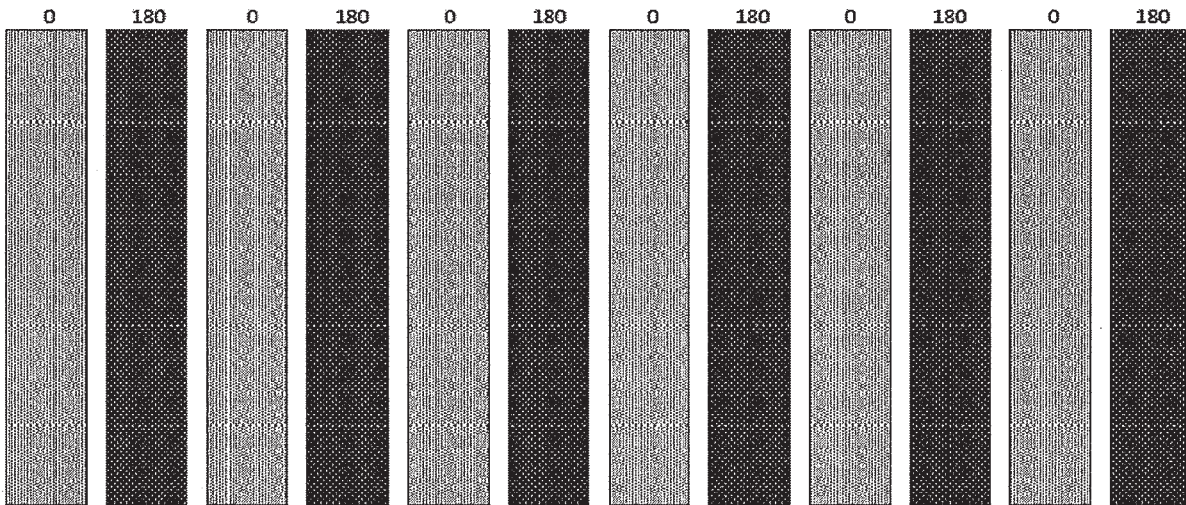
-  0 degree poling
-  180 degree poling
-  0 degree electrical phasing
-  90 degree electrical phasing

**FIG. 17A**

1410
2

24 / 41

APERTURE WITH SPLIT FOCUS



1412

1414

1412

1414 ...

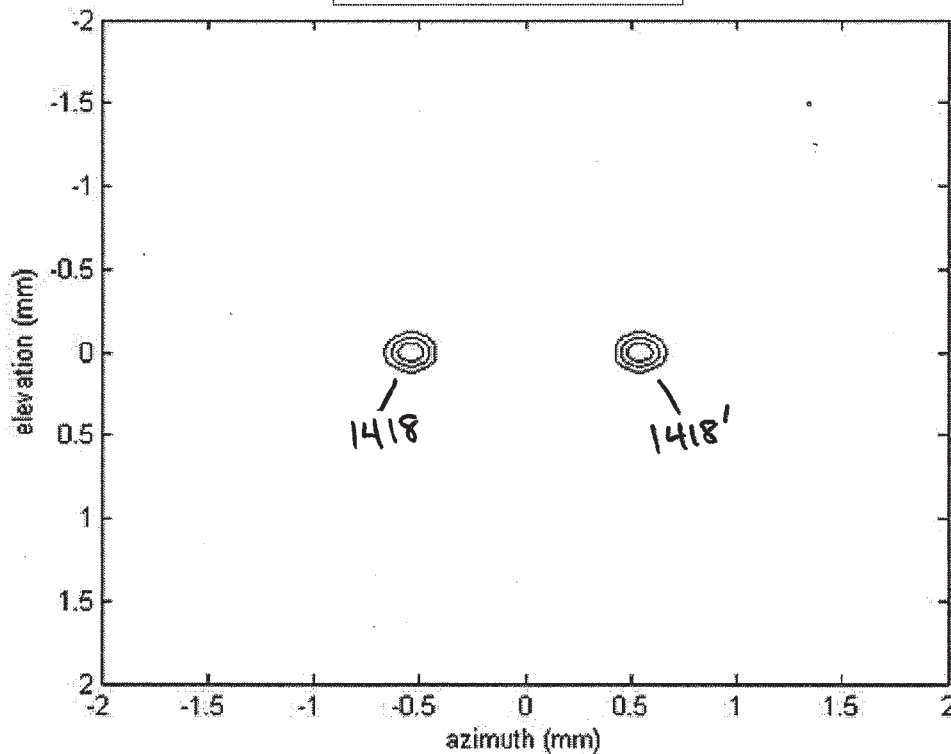
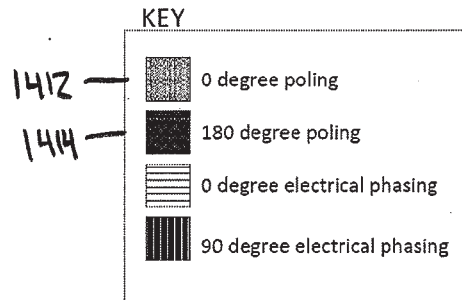


FIG. 17B

1420
↓

25 / 41

APERTURE POINTING FOCUS TO THE LEFT

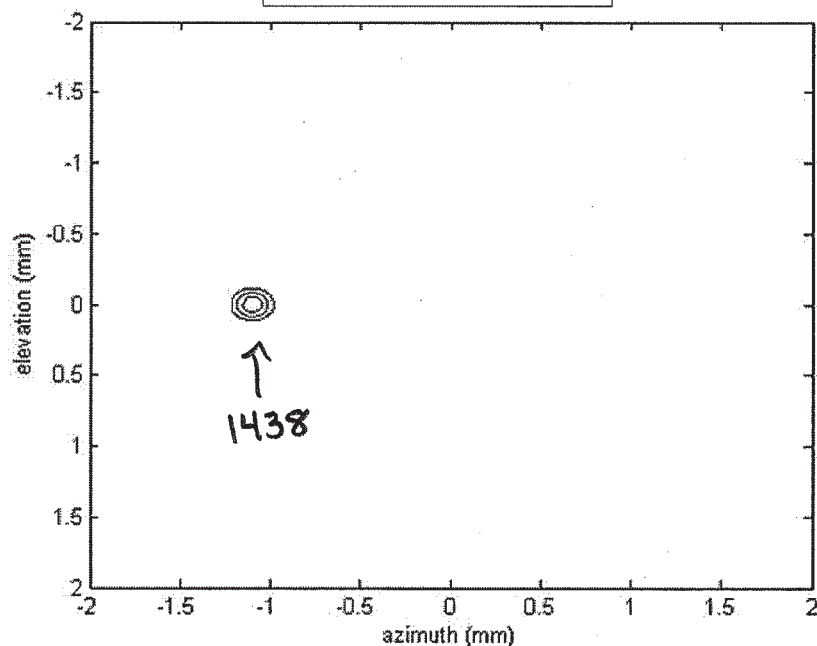
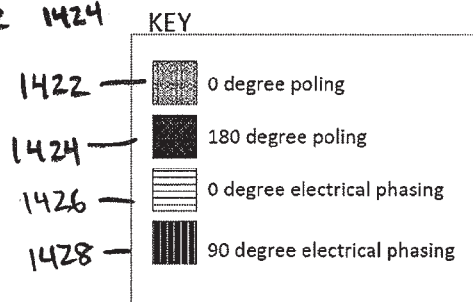
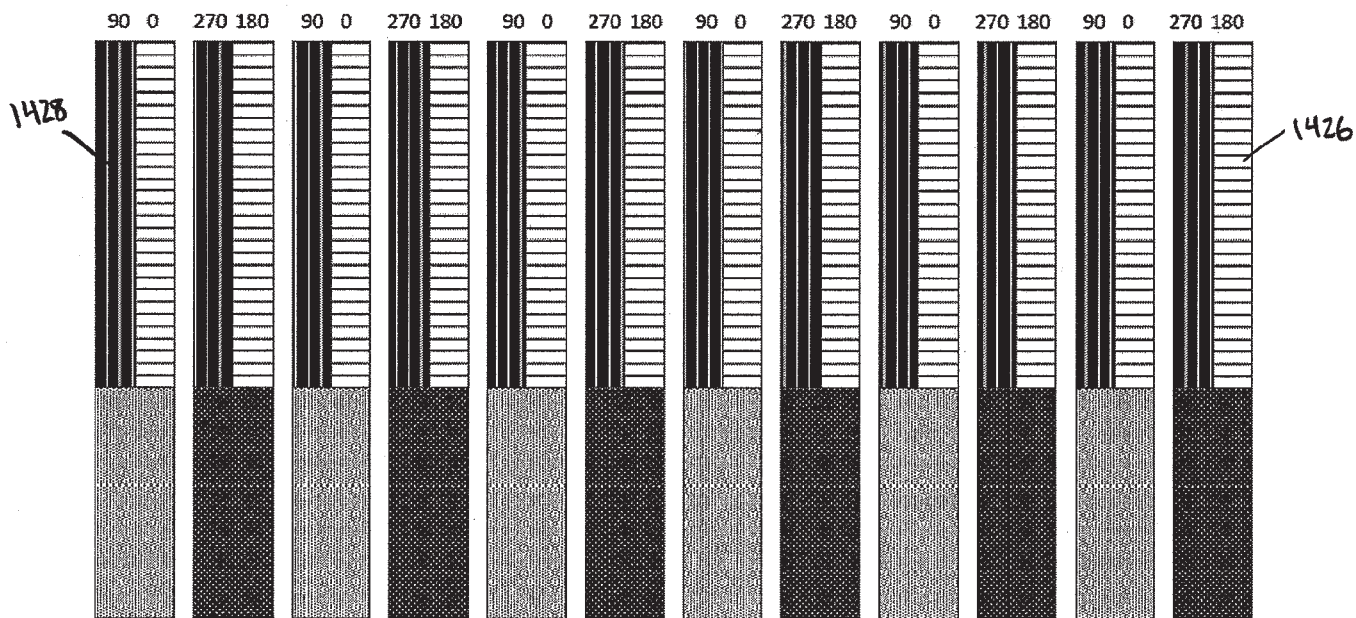


FIG. 17C

1440

26 / 41

APERTURE POINTING FOCUS TO THE RIGHT

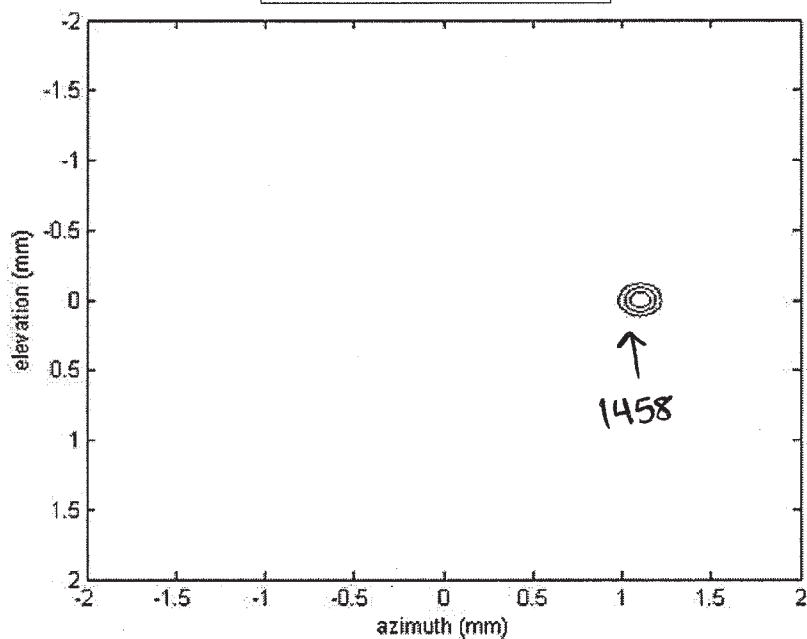
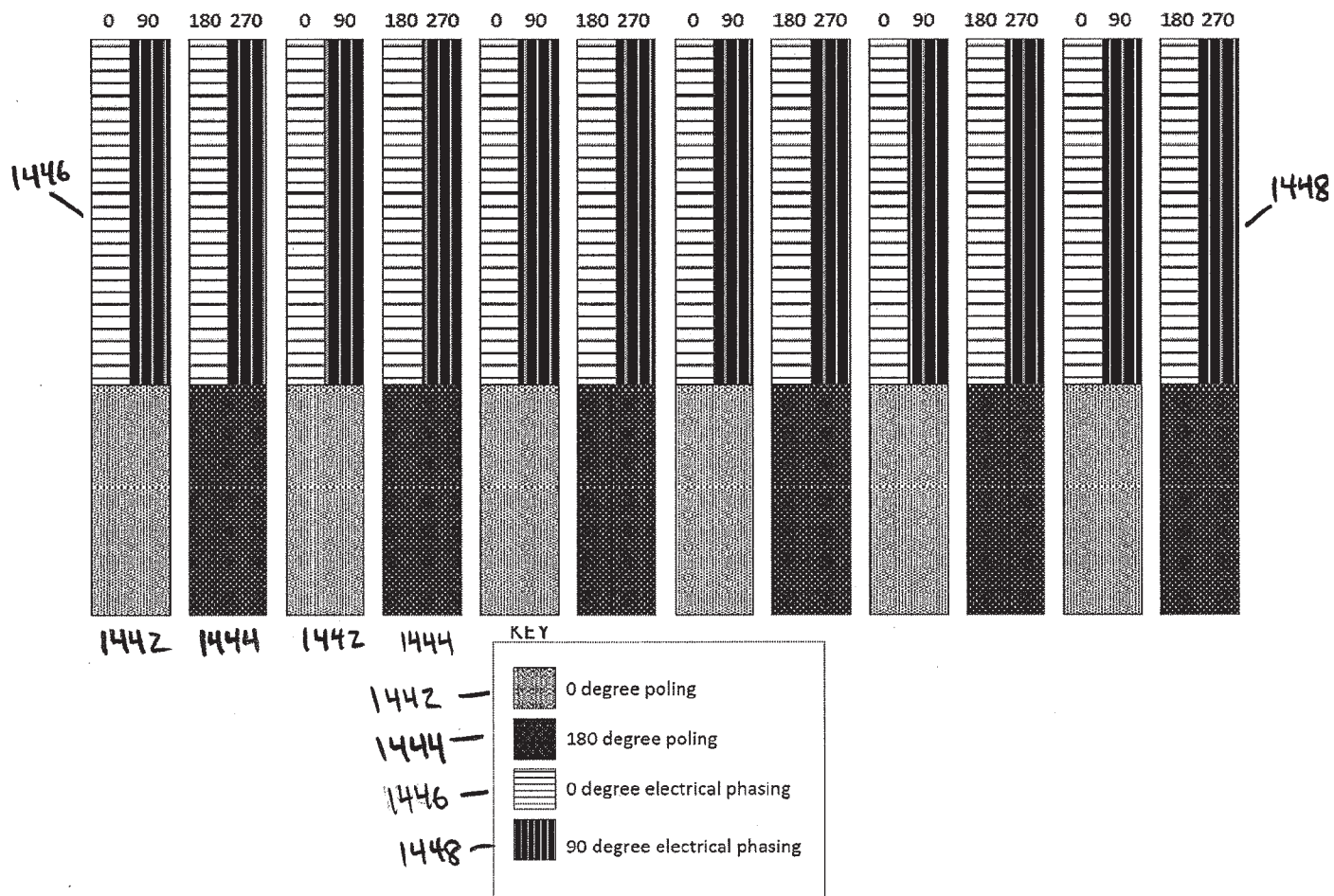
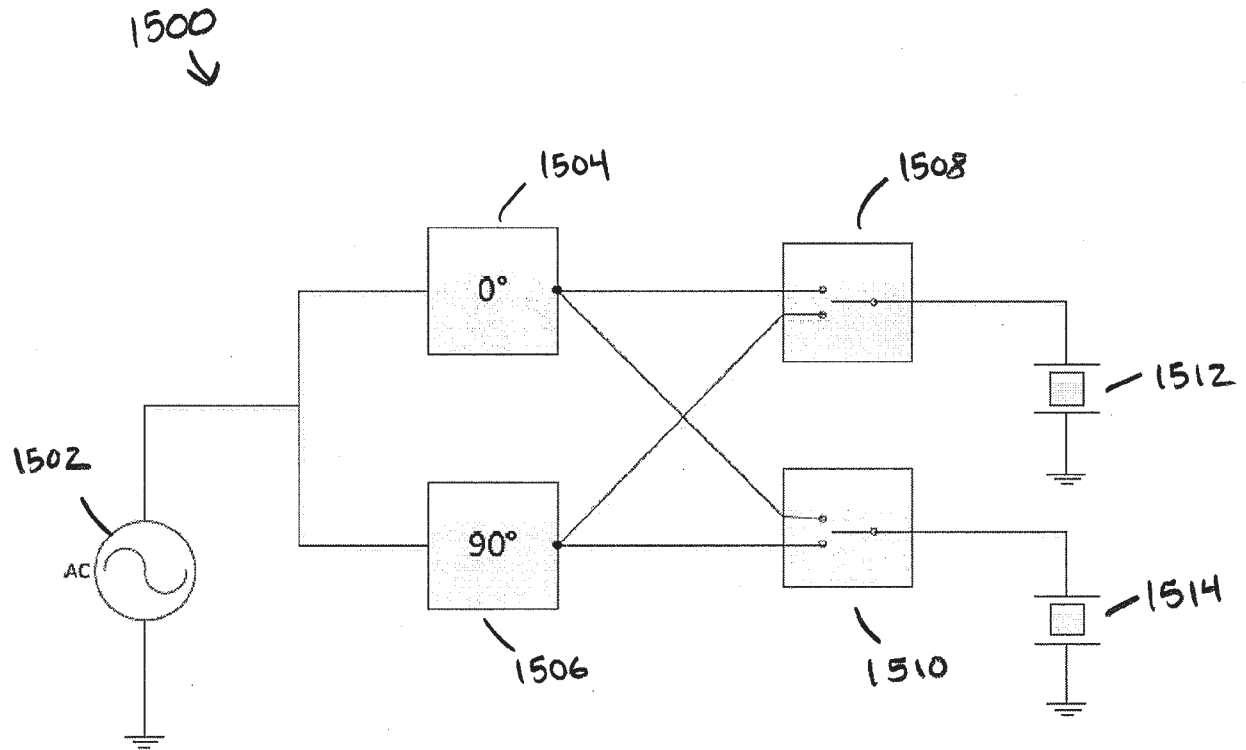


FIG. 17D

**FIG. 18**

Normalized Intensity Distribution at 13 mm for Conventional Therapy Bowl

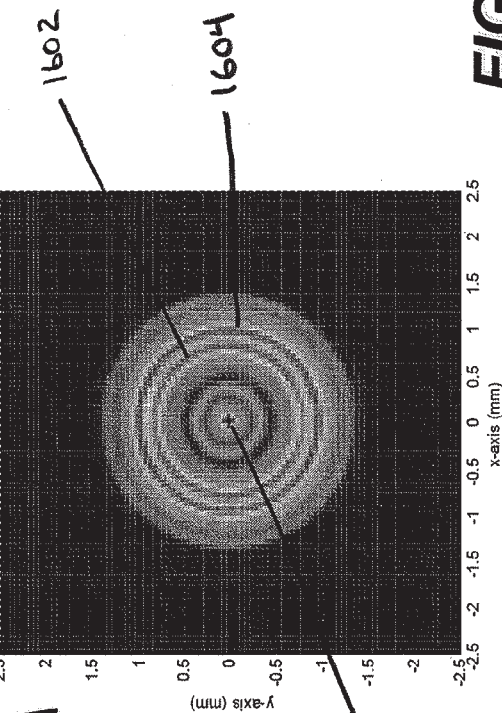


FIG. 19B

Intensity Contours from Conventional at 13 mm Normalized to Conventional

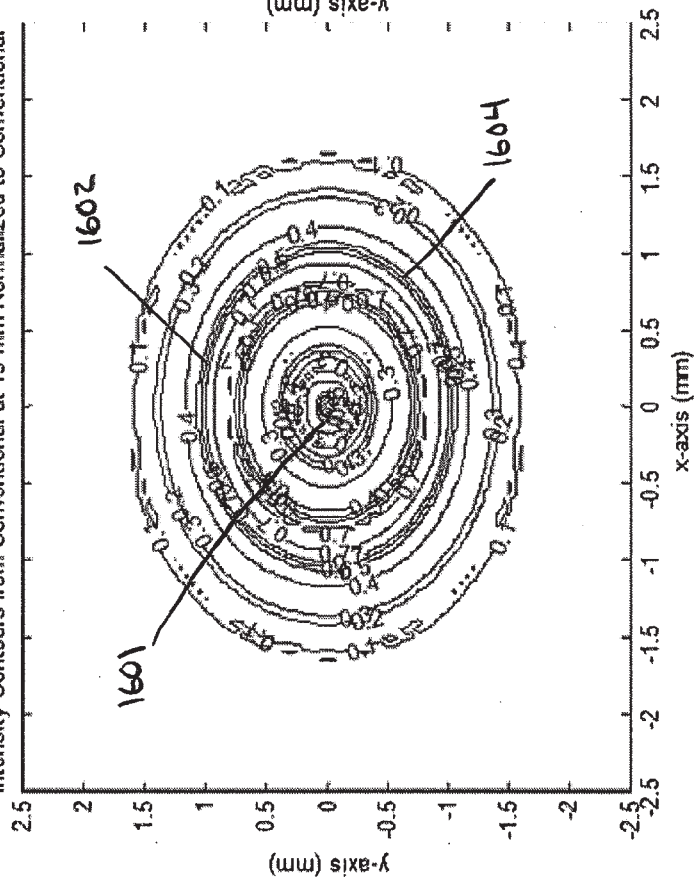
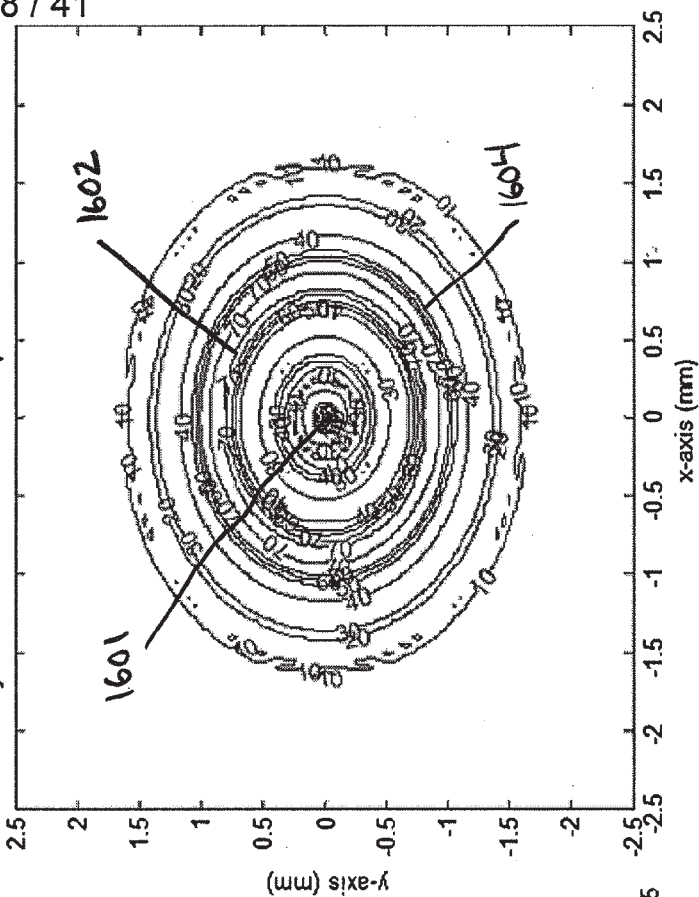


FIG. 19C

Intensity Contours from Conventional Aperture at 13 mm in W/cm^2



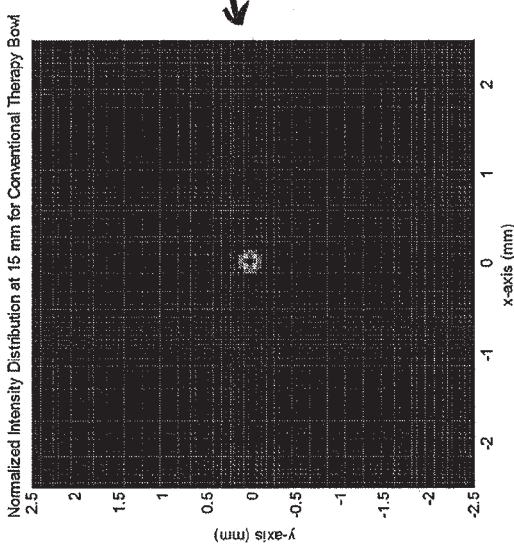


FIG. 20C

Intensity Contours from Conventional Aperture at 15 mm in W/cm^2

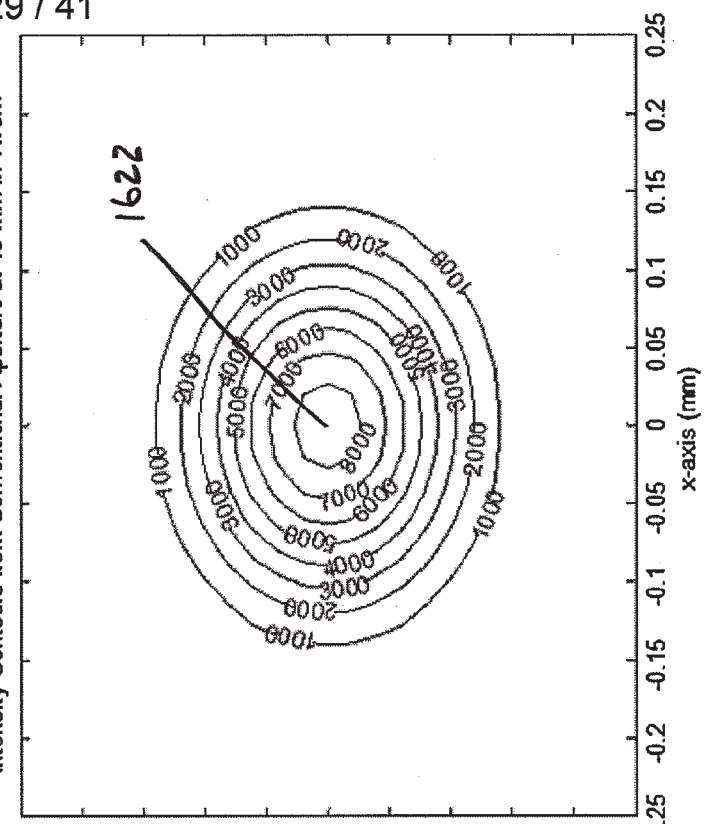
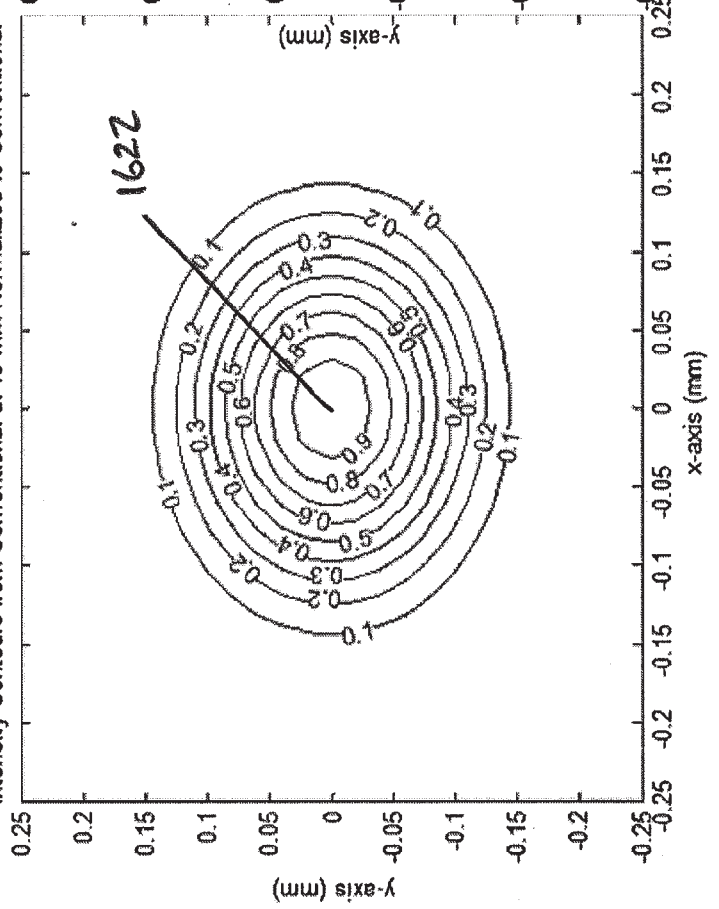


FIG. 20B

Intensity Contours from Conventional at 15 mm Normalized to Conventional



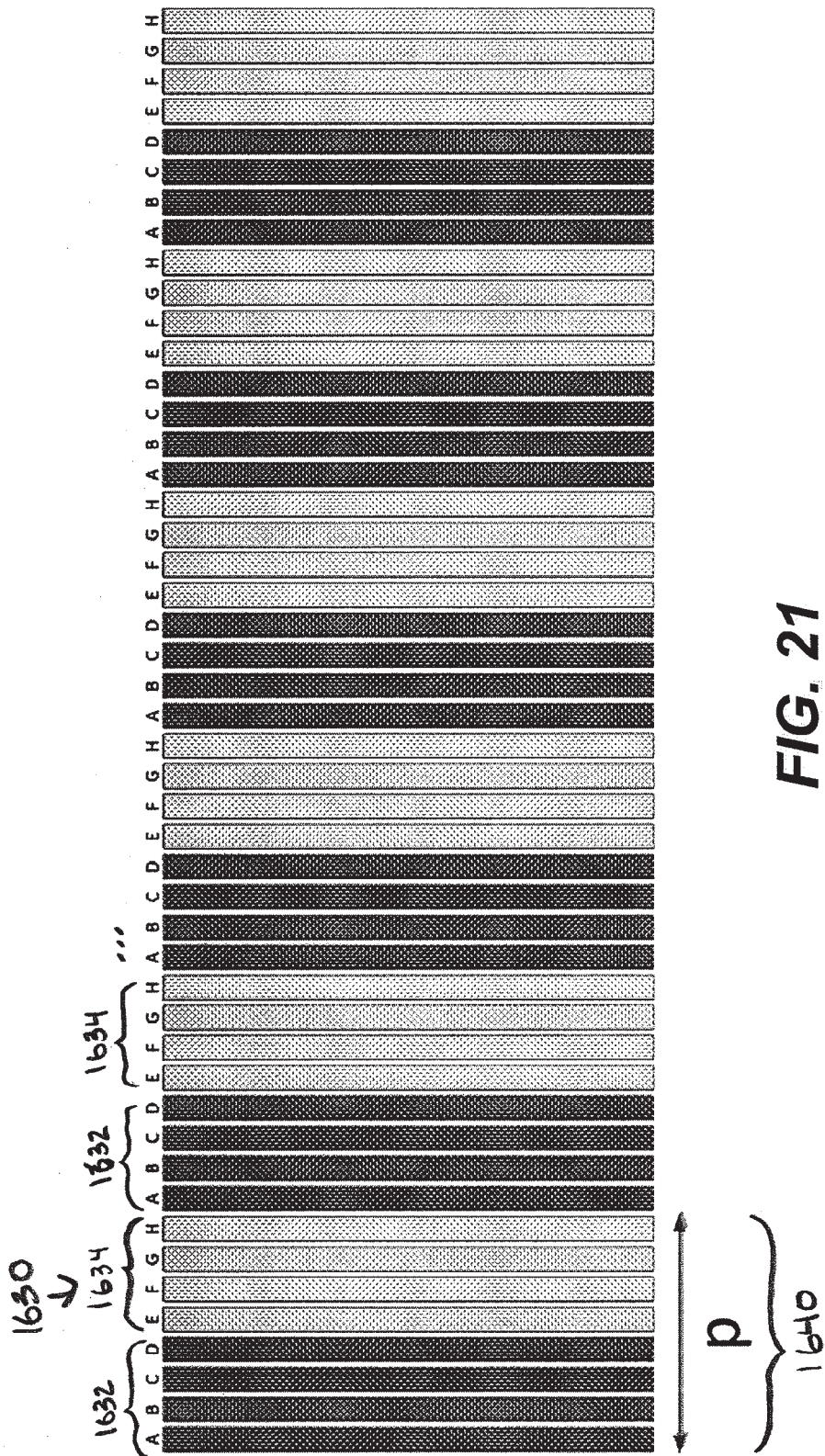


FIG. 21

FIG. 22A

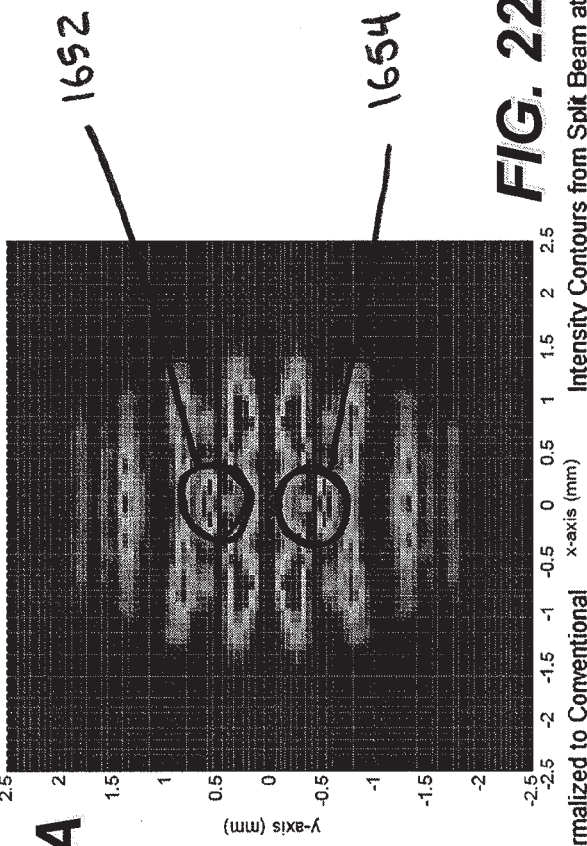


FIG. 22B

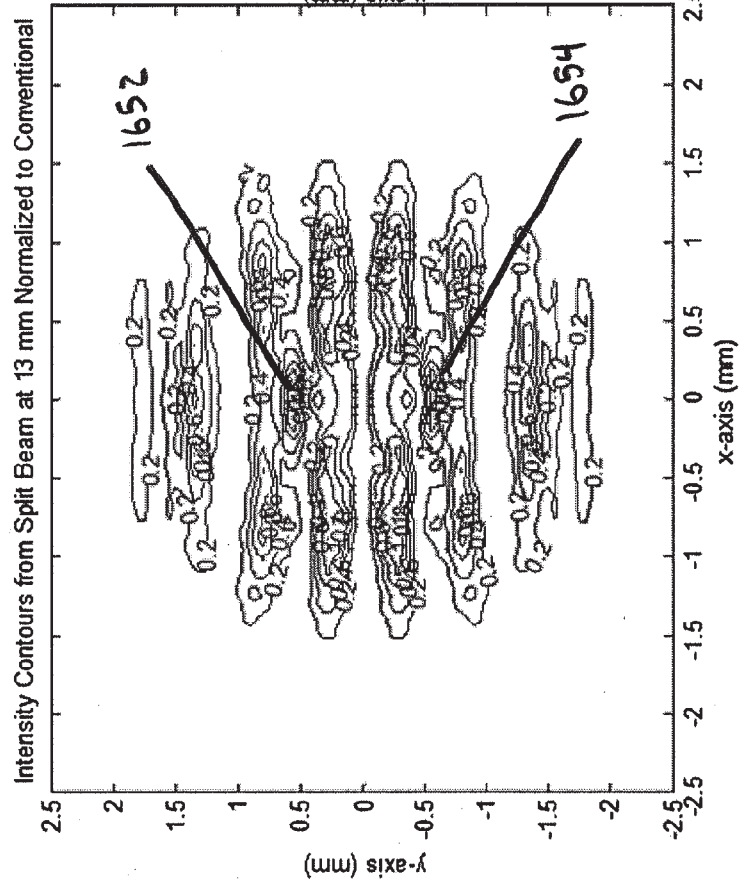
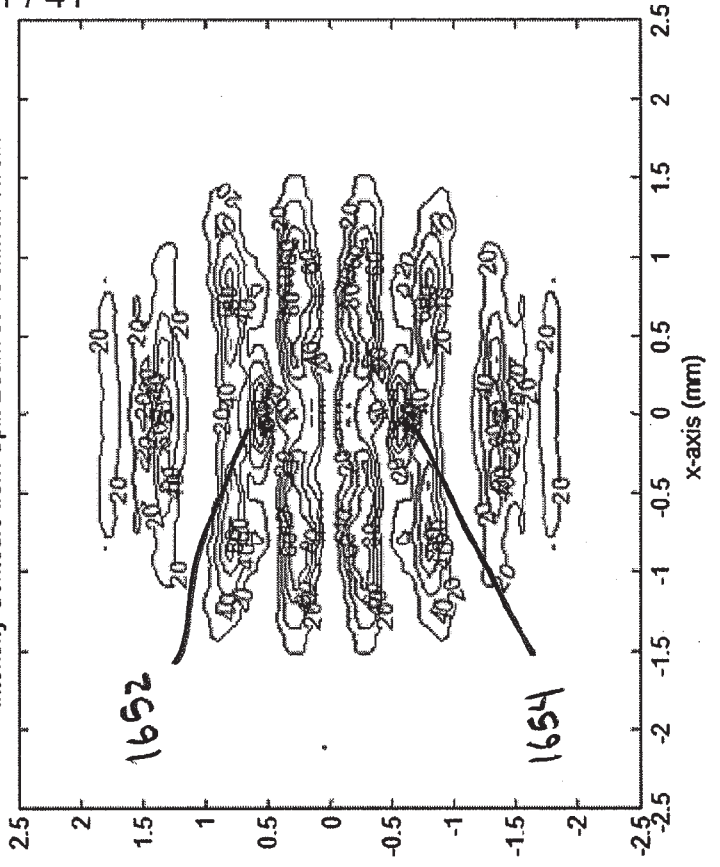


FIG. 22C



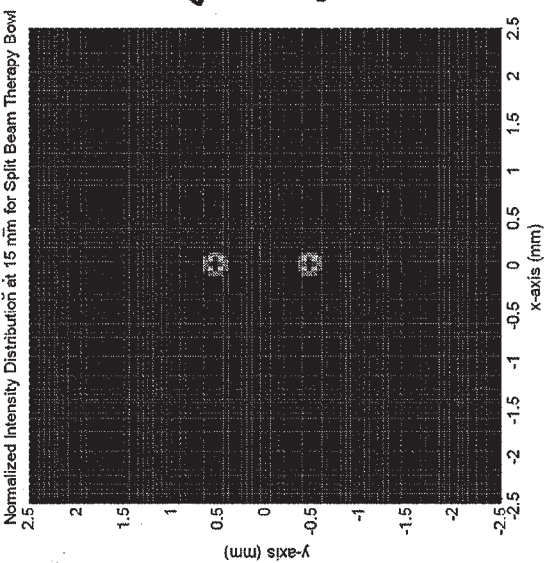


FIG. 23C

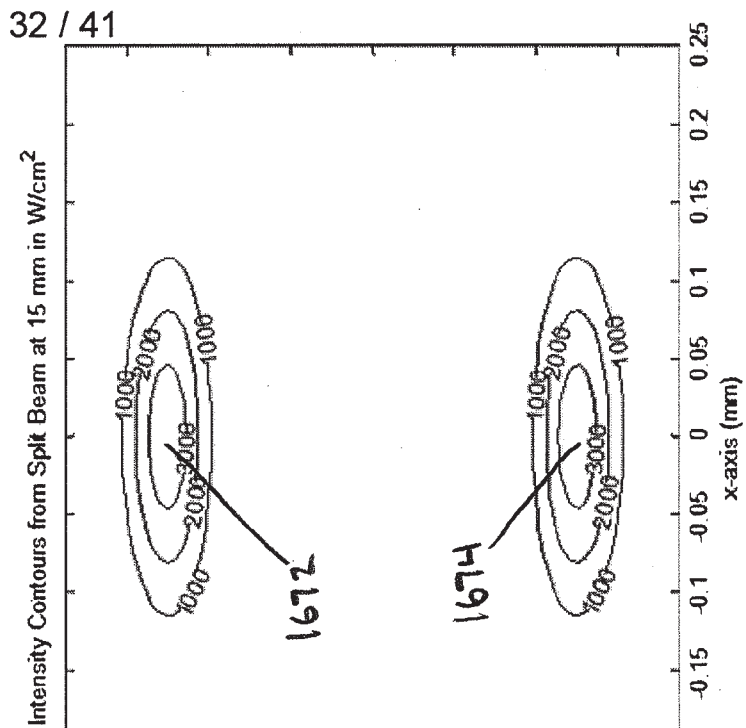
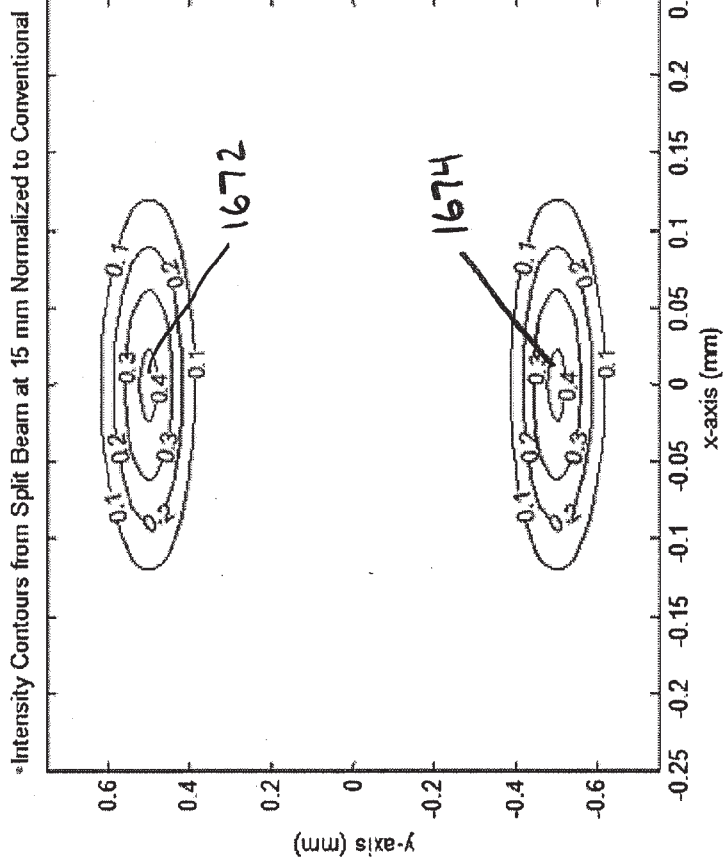


FIG. 23B



1680



33 / 41

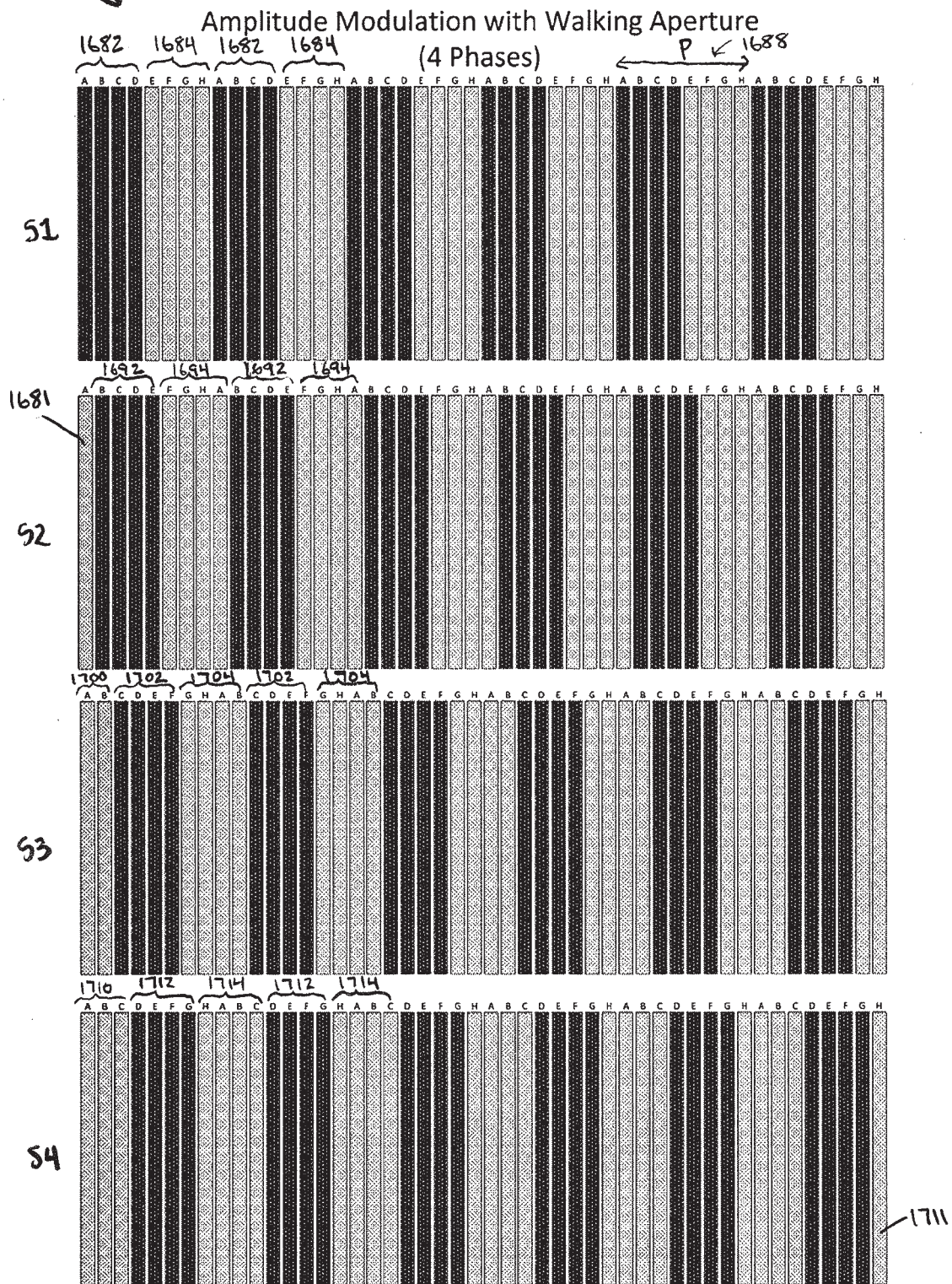


FIG. 24

FIG. 25A

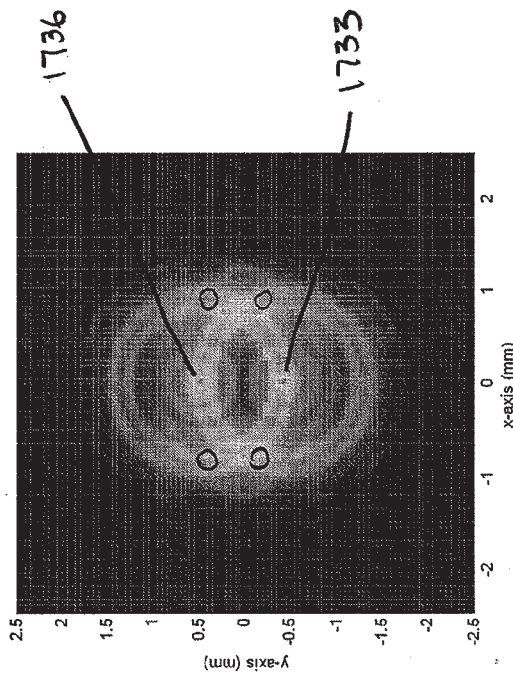


FIG. 25B

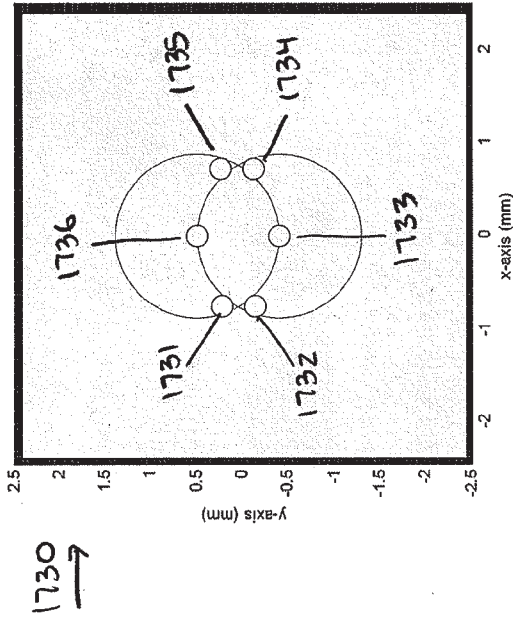


FIG. 25C

Intensity Contours from Amplitude Modulated Walking Aperture at 13 mm
Normalized to Conventional

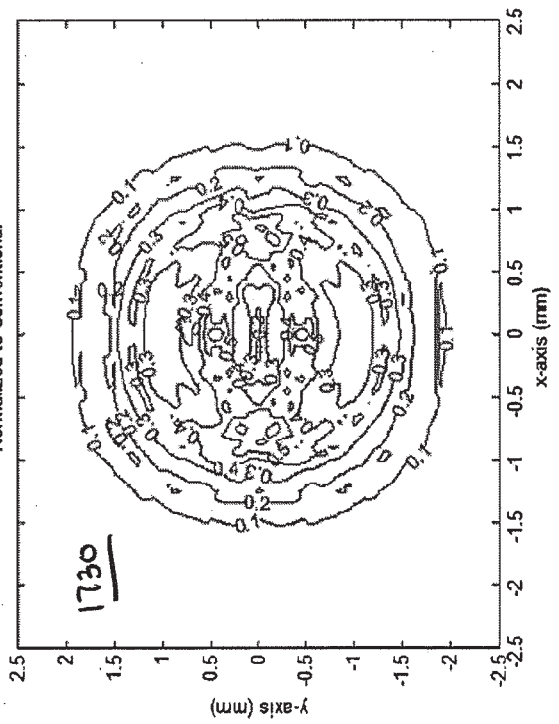


FIG. 25D

Intensity Contours from Amplitude Modulated Walking Aperture at 13 mm in W/cm^2

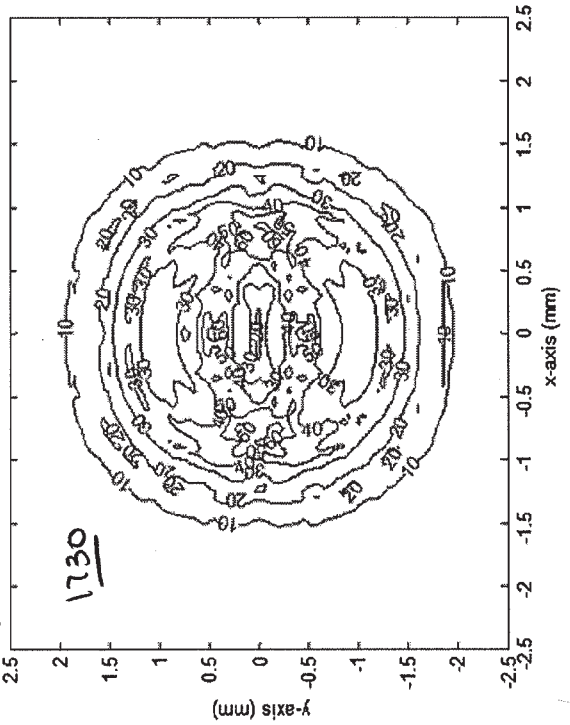


FIG. 26A

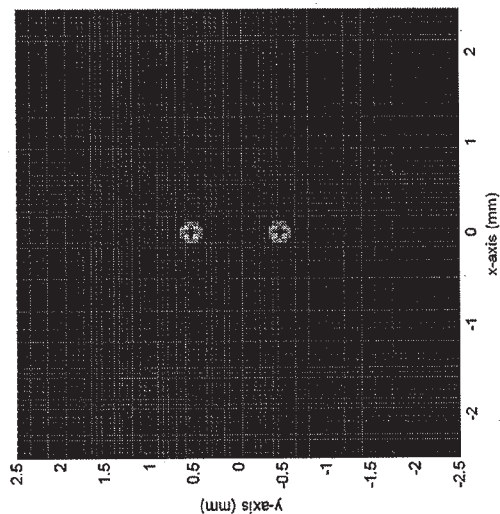


FIG. 26B

Intensity Contours from Amplitude Modulated Walking Aperture at 15 mm
Normalized to Conventional

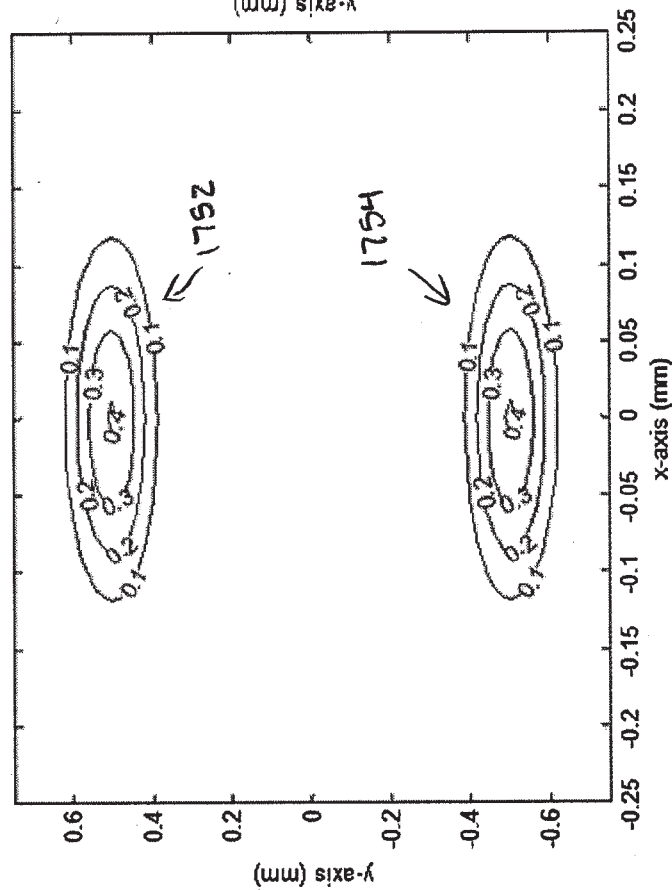
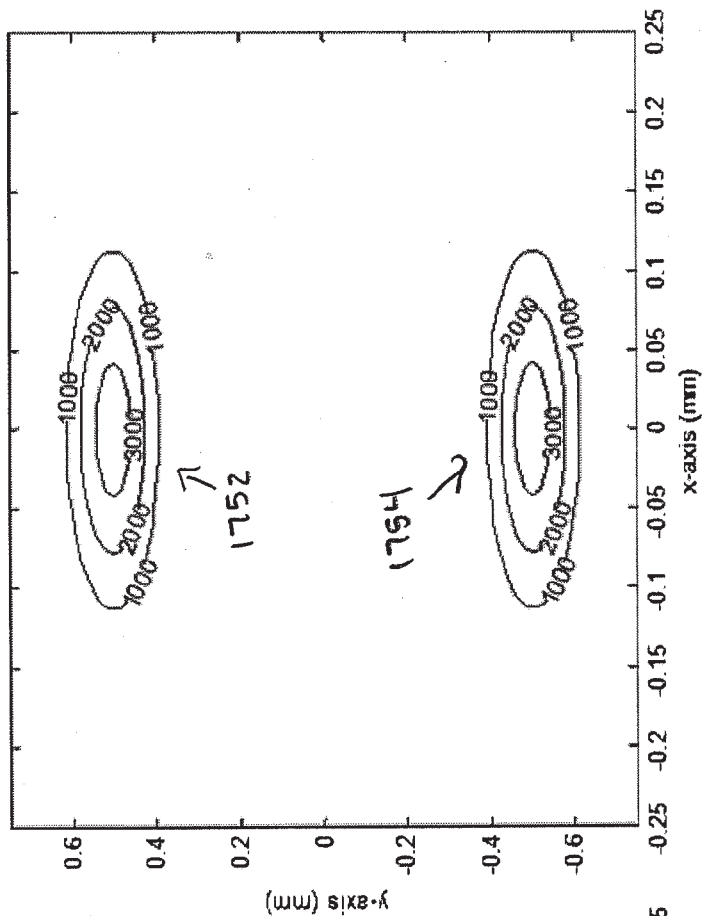
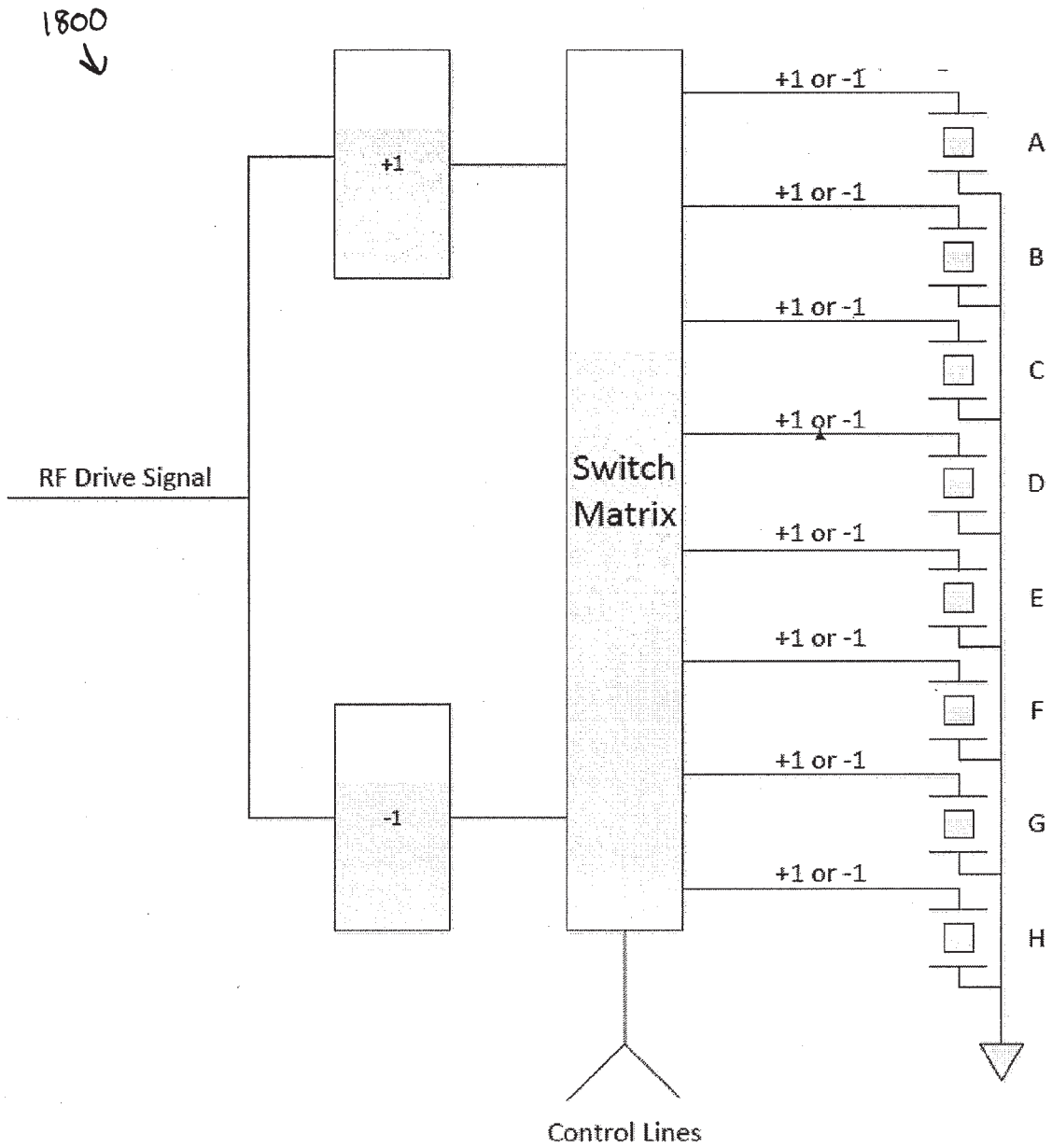


FIG. 26C

Intensity Contours from Amplitude Modulated Walking Aperture at 15 mm in W/cm^2



**FIG. 27A**

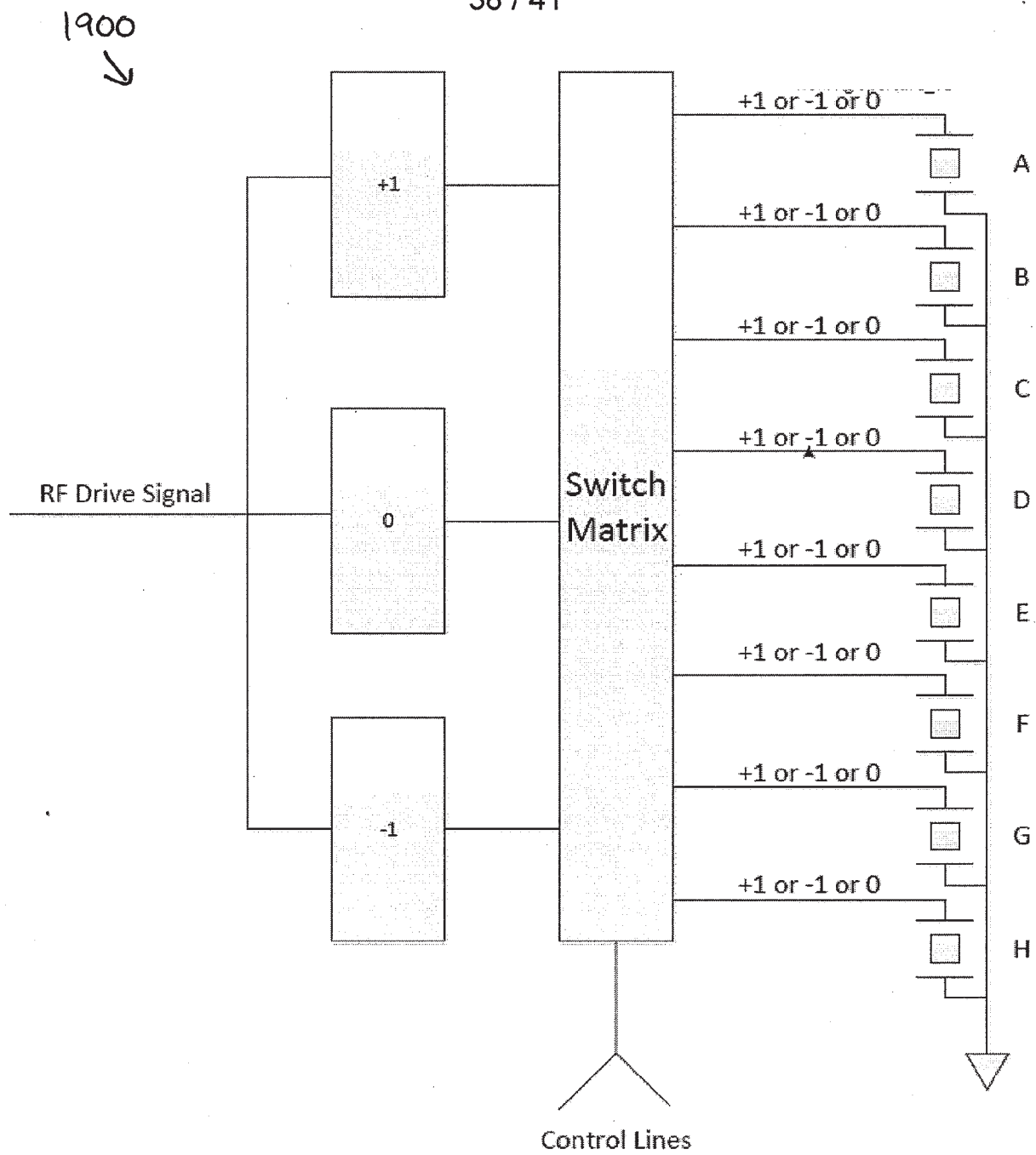
1850



37 / 41

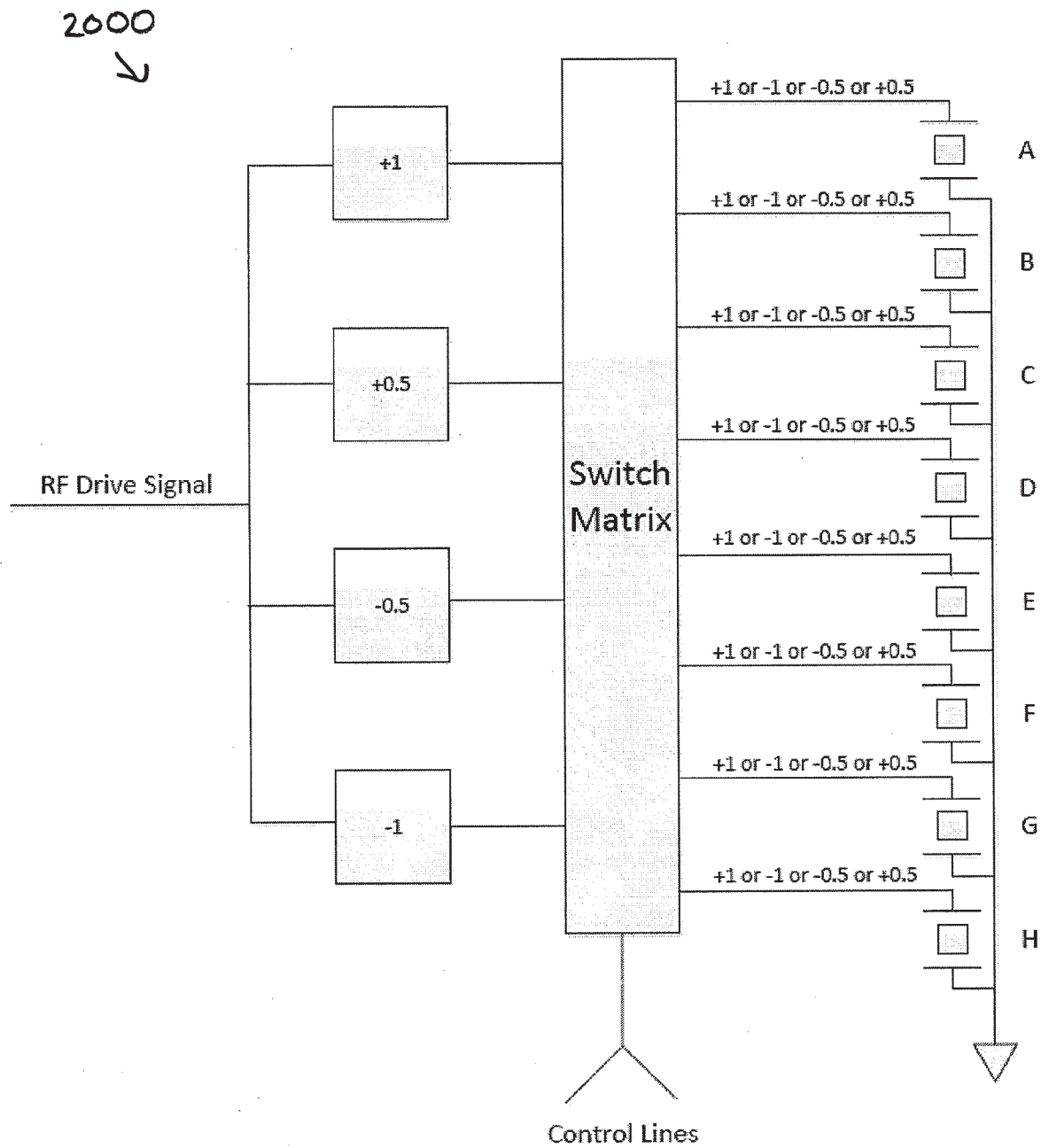
		APERTURE GROUP							
STATE	TIME	A	B	C	D	E	F	G	H
S1	T1	+1	+1	+1	+1	-1	-1	-1	-1
S2	T2	-1	+1	+1	+1	+1	-1	-1	-1
S3	T3	-1	-1	+1	+1	+1	+1	-1	-1
S4	T4	-1	-1	-1	+1	+1	+1	+1	-1
S5	T5	-1	-1	-1	-1	+1	+1	+1	+1
S6	T6	+1	-1	-1	-1	-1	+1	+1	+1
S7	T7	+1	+1	-1	-1	-1	-1	+1	+1
S8	T8	+1	+1	+1	-1	-1	-1	-1	+1
S1	T9	+1	+1	+1	+1	-1	-1	-1	-1
S2	T10	-1	+1	+1	+1	+1	-1	-1	-1
S3	T11	-1	-1	+1	+1	+1	+1	-1	-1
S4	T12	-1	-1	-1	+1	+1	+1	+1	-1
S5	T13	-1	-1	-1	-1	+1	+1	+1	+1
S6	T14	+1	-1	-1	-1	-1	+1	+1	+1
S7	T15	+1	+1	-1	-1	-1	-1	+1	+1
S8	T16	+1	+1	+1	-1	-1	-1	-1	+1
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
Sn	Tn	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

FIG. 27B

**FIG. 28A**

APERTURE GROUP										
STATE	TIME	A	B	C	D	E	F	G	H	
S1	T1	+1	0	-1	0	+1	0	-1	0	
S2	T2	0	+1	0	-1	0	+1	0	-1	
S3	T3	-1	0	+1	0	-1	0	+1	0	
S4	T4	0	-1	0	+1	0	-1	0	+1	
S1	T5	+1	0	-1	0	+1	0	-1	0	
S2	T6	0	+1	0	-1	0	+1	0	-1	
S3	T7	-1	0	+1	0	-1	0	+1	0	
S4	T8	0	-1	0	+1	0	-1	0	+1	
S1	T9	+1	0	-1	0	+1	0	-1	0	
S2	T10	0	+1	0	-1	0	+1	0	-1	
S3	T11	-1	0	+1	0	-1	0	+1	0	
S4	T12	0	-1	0	+1	0	-1	0	+1	
S1	T13	+1	0	-1	0	+1	0	-1	0	
S2	T14	0	+1	0	-1	0	+1	0	-1	
S3	T15	-1	0	+1	0	-1	0	+1	0	
S4	T16	0	-1	0	+1	0	-1	0	+1	
.	.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	.	
Sn	Tn	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

FIG. 28B

**FIG. 29A**

2050



APERTURE GROUP										
STATE	TIME	A	B	C	D	E	F	G	H	
S1	T1	+0.5	+1	+1	+0.5	-0.5	-1	-1	-0.5	
S2	T2	-0.5	+0.5	+1	+1	+0.5	-0.5	-1	-1	
S3	T3	-1	-0.5	+0.5	+1	+1	+0.5	-0.5	-1	
S4	T4	-1	-1	-0.5	+0.5	+1	+1	+0.5	-0.5	
S5	T5	-0.5	-1	-1	-0.5	+0.5	+1	+1	+0.5	
S6	T6	+0.5	-0.5	-1	-1	-0.5	+0.5	+1	+1	
S7	T7	+1	+0.5	-0.5	-1	-1	-0.5	+0.5	+1	
S8	T8	+1	+1	+0.5	-0.5	-1	-1	-0.5	+0.5	
S1	T9	+0.5	+1	+1	+0.5	-0.5	-1	-1	-0.5	
S2	T10	-0.5	+0.5	+1	+1	+0.5	-0.5	-1	-1	
S3	T11	-1	-0.5	+0.5	+1	+1	+0.5	-0.5	-1	
S4	T12	-1	-1	-0.5	+0.5	+1	+1	+0.5	-0.5	
S5	T13	-0.5	-1	-1	-0.5	+0.5	+1	+1	+0.5	
S6	T14	+0.5	-0.5	-1	-1	-0.5	+0.5	+1	+1	
S7	T15	+1	+0.5	-0.5	-1	-1	-0.5	+0.5	+1	
S8	T16	+1	+1	+0.5	-0.5	-1	-1	-0.5	+0.5	
.	.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	.	
Sn	Tn	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

FIG. 29B