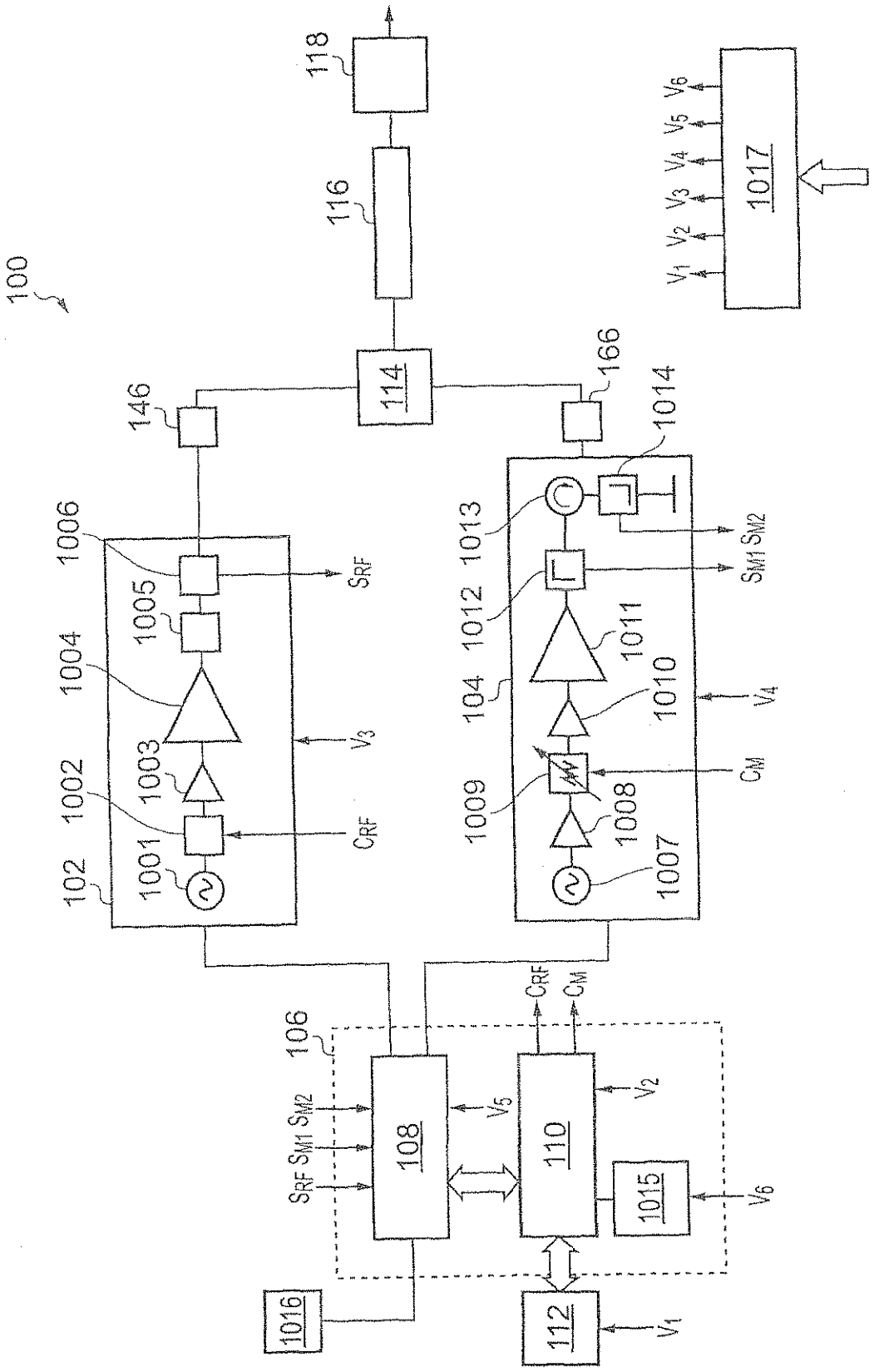

100
102
104
106
108
110
112
114
116
118
146
166
1001
1002
1003
1004
1005
1006
1007
1008
1009
1010
1011
1012
1013
1014
1015
1016
1017
S_{RF}
V_3
C_{RF}
S_{M1} S_{M2}
C_M
V_4
V_5
V_2
V_6
V_1

FIG. 1

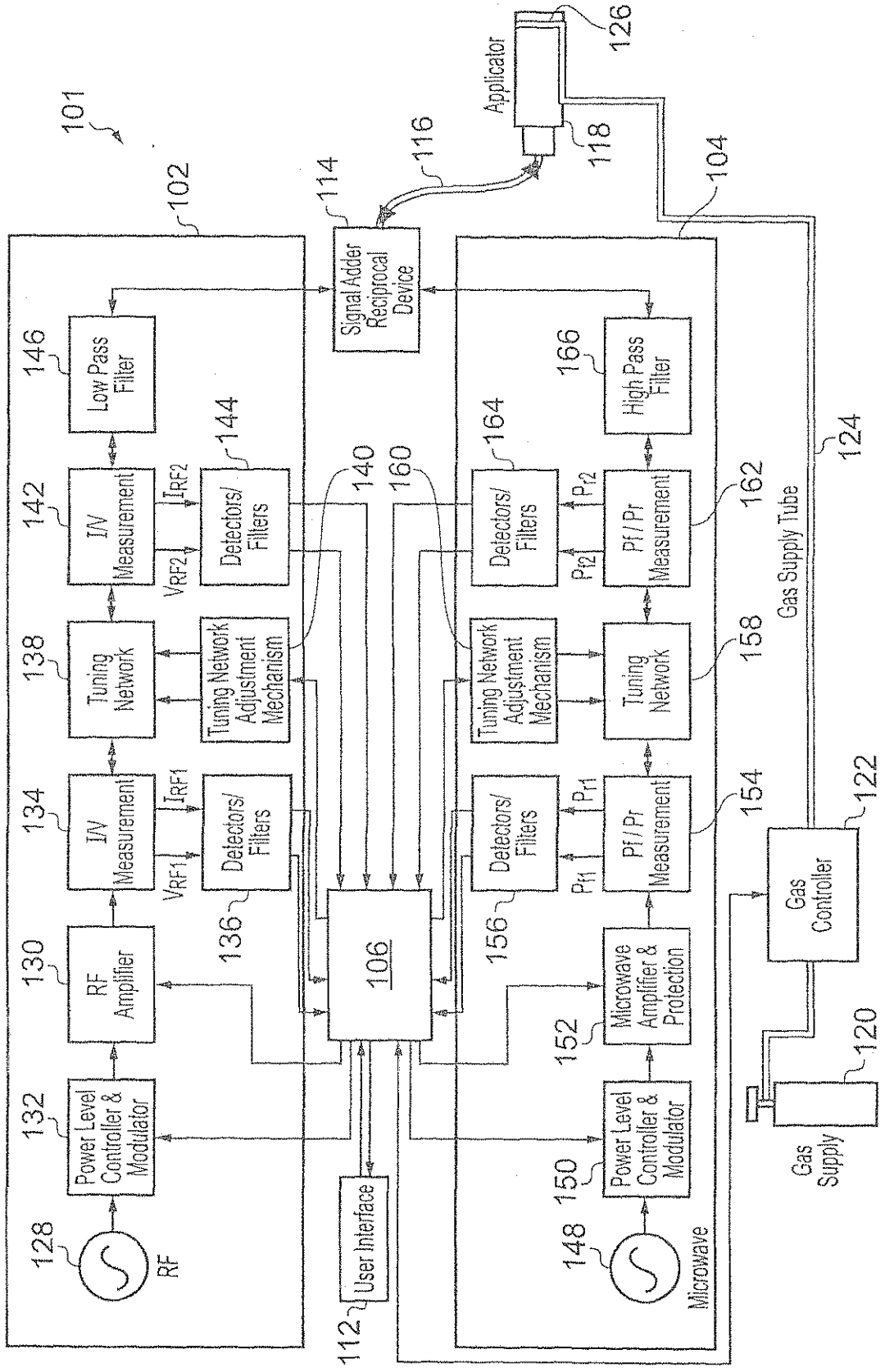

101
102
104
106
112
114
116
118
120
122
124
126
128
130
132
134
136
138
140
142
144
146
148
150
152
154
156
158
160
162
164
166
Applicator
Signal Adder Reciprocal Device
Low Pass Filter
High Pass Filter
I/V Measurement
Pf / Pr Measurement
Detectors/ Filters
Tuning Network
Tuning Network Adjustment Mechanism
RF Amplifier
Microwave Amplifier & Protection
Power Level Controller & Modulator
Gas Controller
Gas Supply Tube
Gas Supply
User Interface
RF
Microwave
VRF1
IRF1
VRF2
IRF2
Pr11
Pf11
Pr12
Pf12

FIG. 2

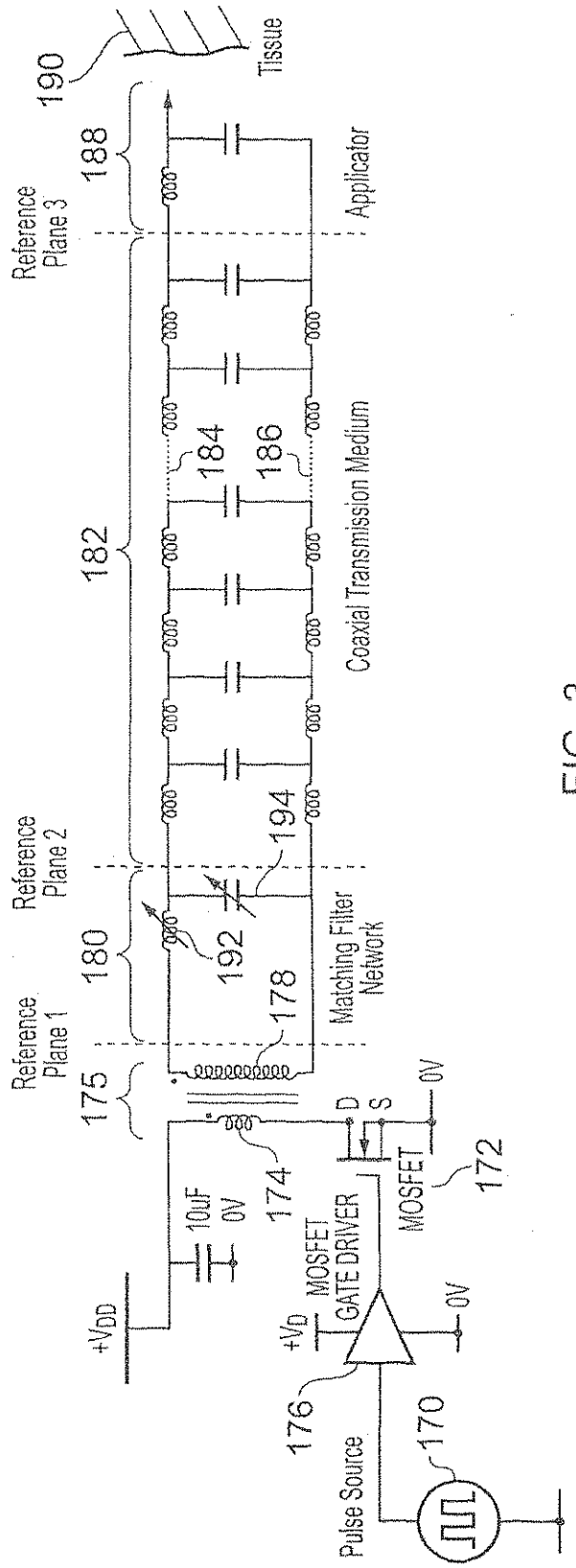

190
Tissue
188
Reference Plane 3
Applicator
182
184
186
Coaxial Transmission Medium
194
180
192
178
Reference Plane 2
Matching Filter Network
Reference Plane 1
175
D
S
0V
174
172
MOSFET
10uF
0V
+VDD
+VD
MOSFET GATE DRIVER
0V
176
170
Pulse Source

FIG. 3

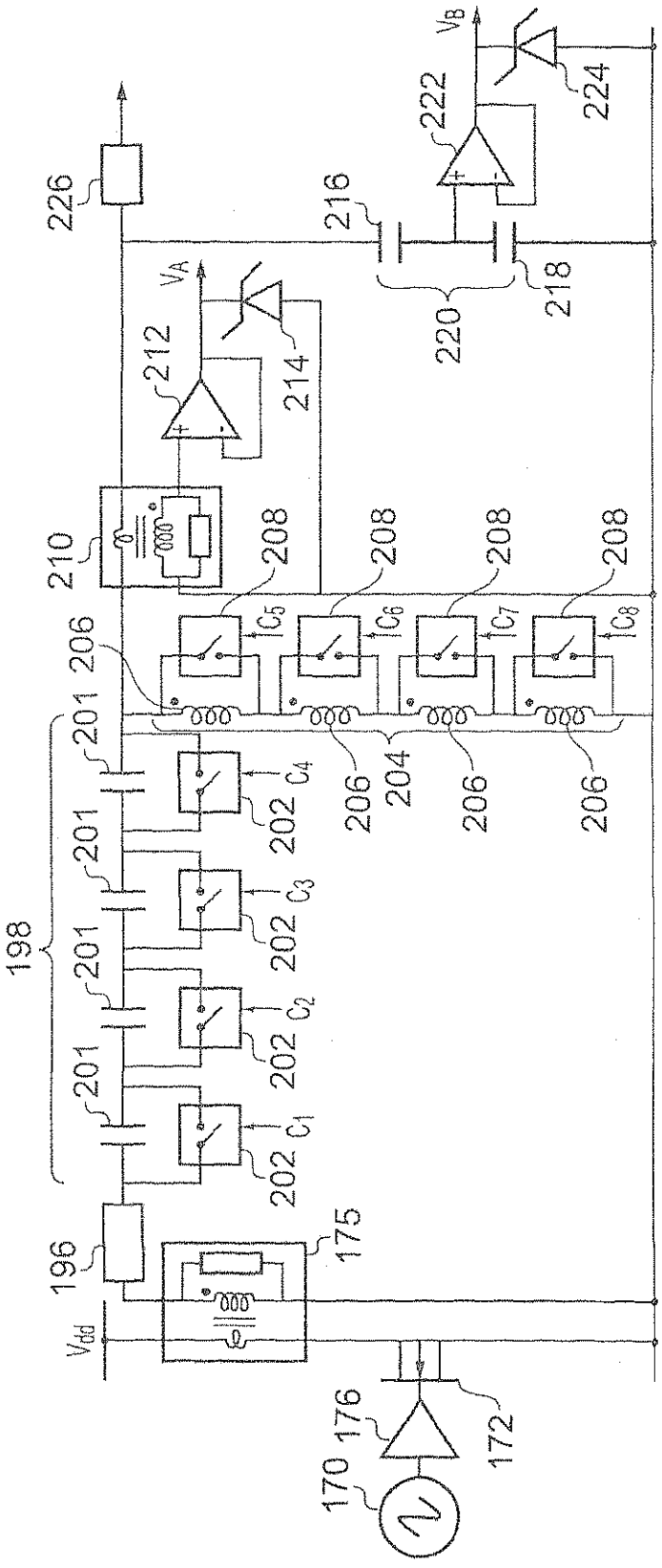

226
216
222
224
V_B
218
220
V_A
212
214
210
208
206
201
204
198
C_1
C_2
C_3
C_4
C_5
C_6
C_7
C_8
202
196
175
V_{dd}
0
176
172
170
106

FIG. 4

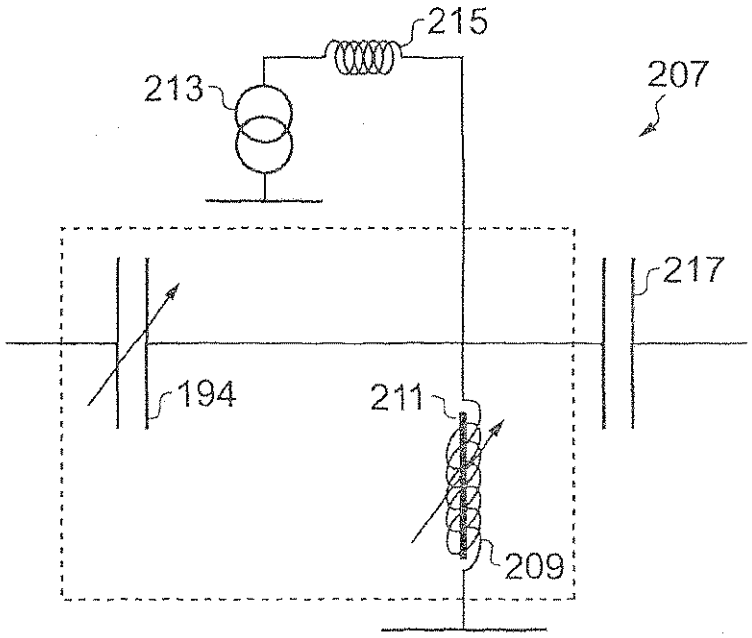


FIG. 5

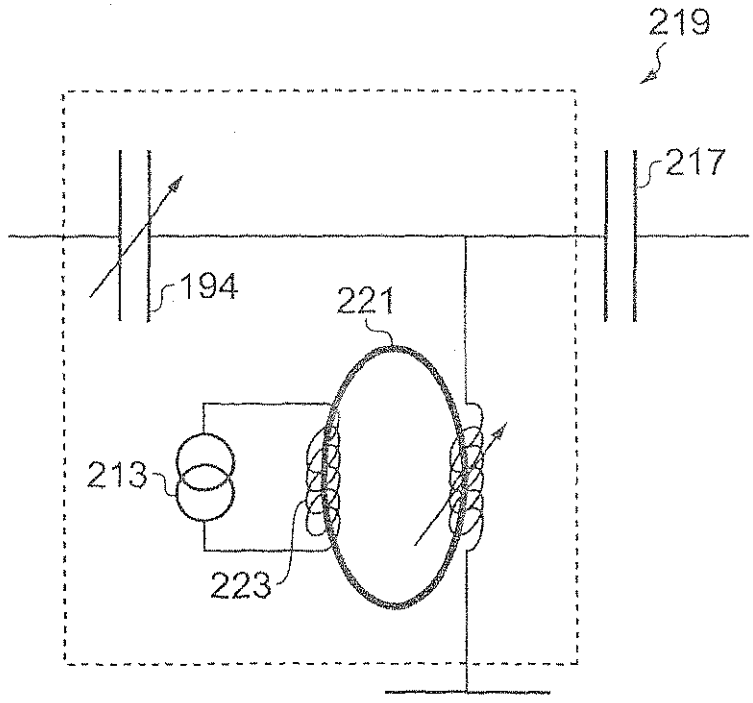


FIG. 6

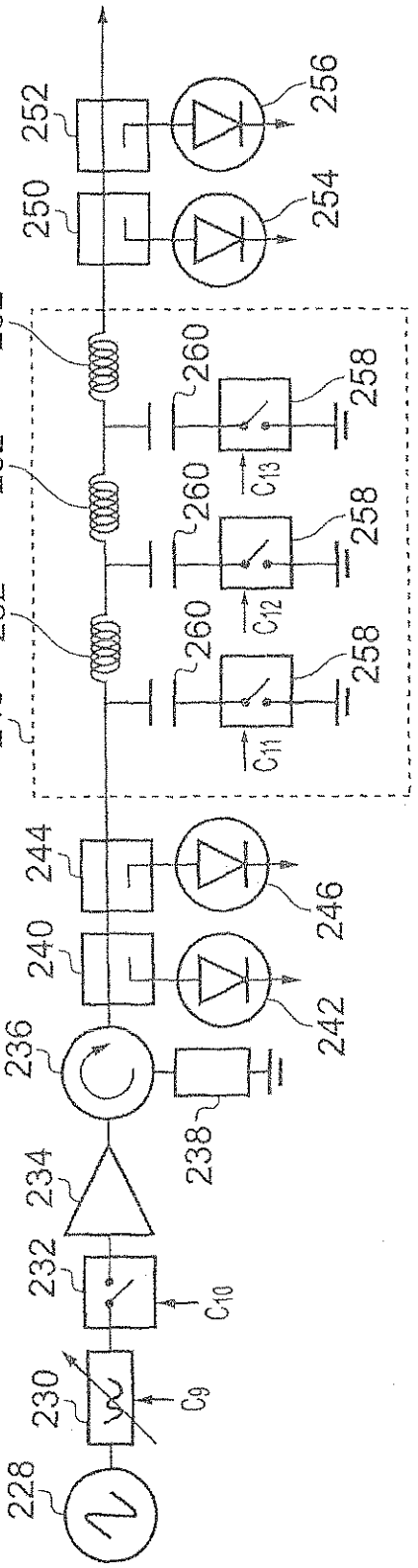


FIG. 7

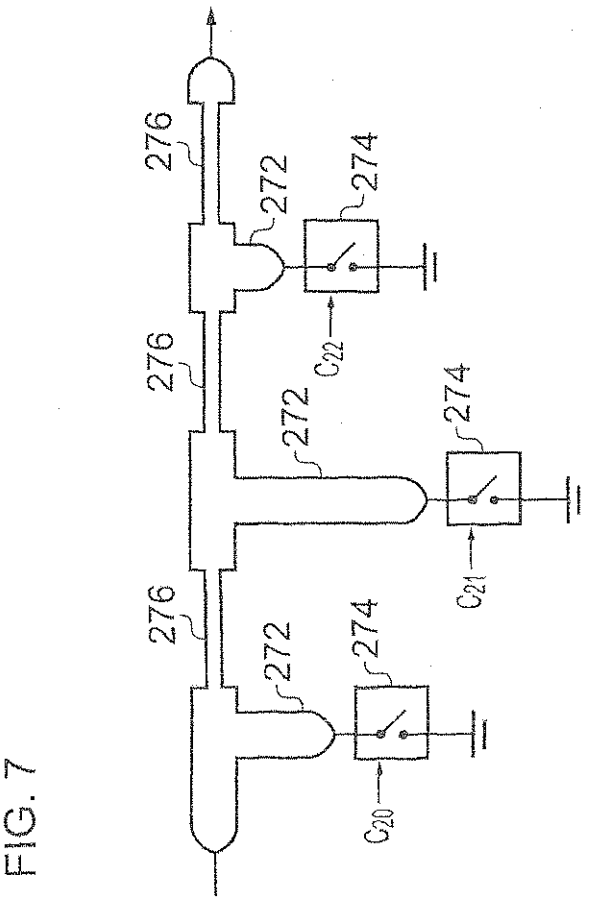


FIG. 9

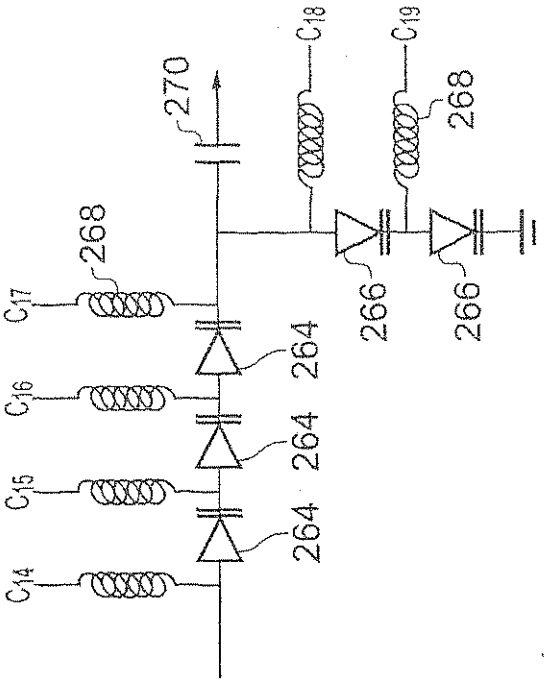


FIG. 8

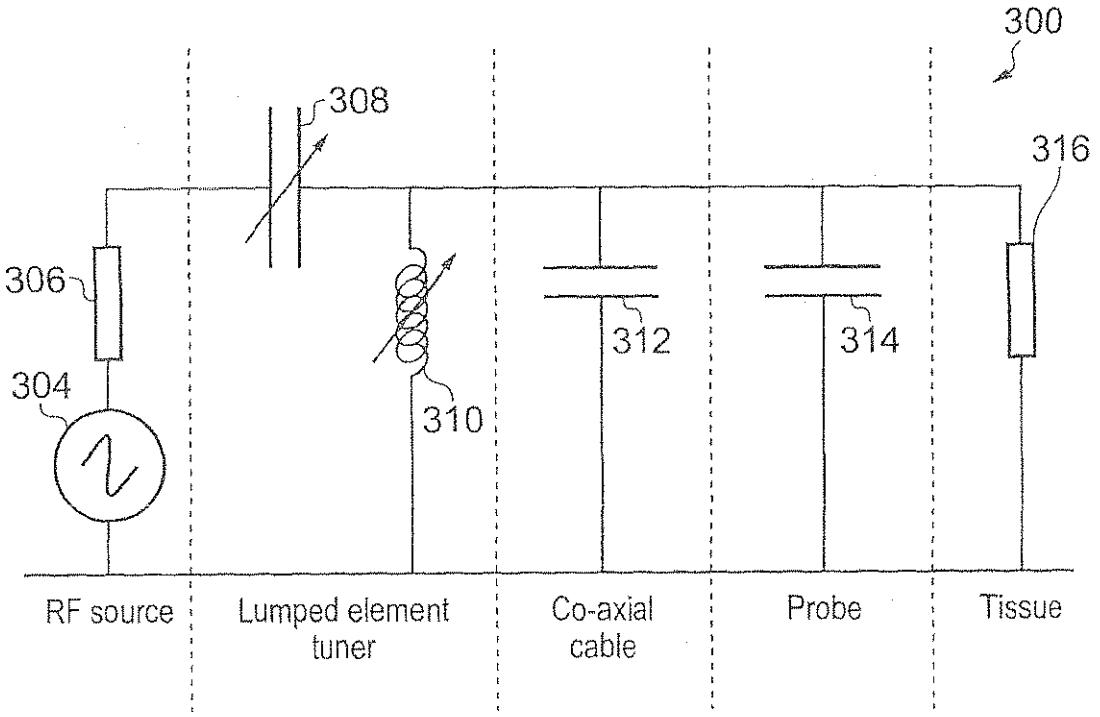

300
308
316
306
304
310
312
314
RF source
Lumped element tuner
Co-axial cable
Probe
Tissue

FIG. 10

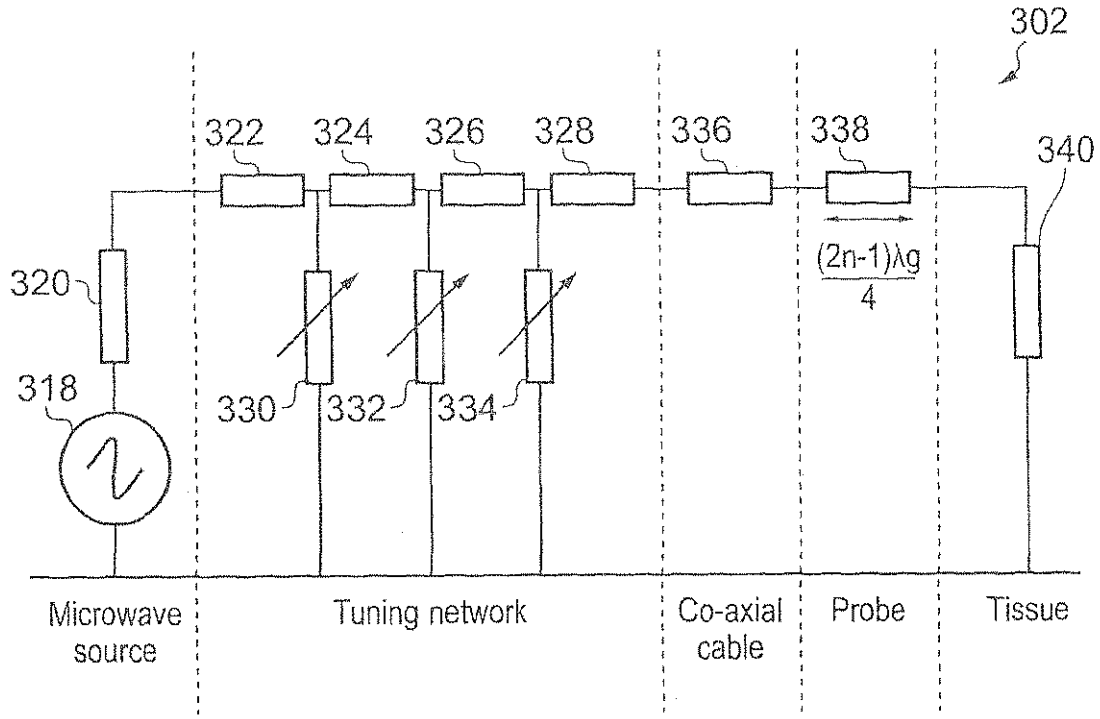

302
322
324
326
328
336
338
340
320
318
330
332
334
(2n-1)λg/4
Microwave source
Tuning network
Co-axial cable
Probe
Tissue

FIG. 11

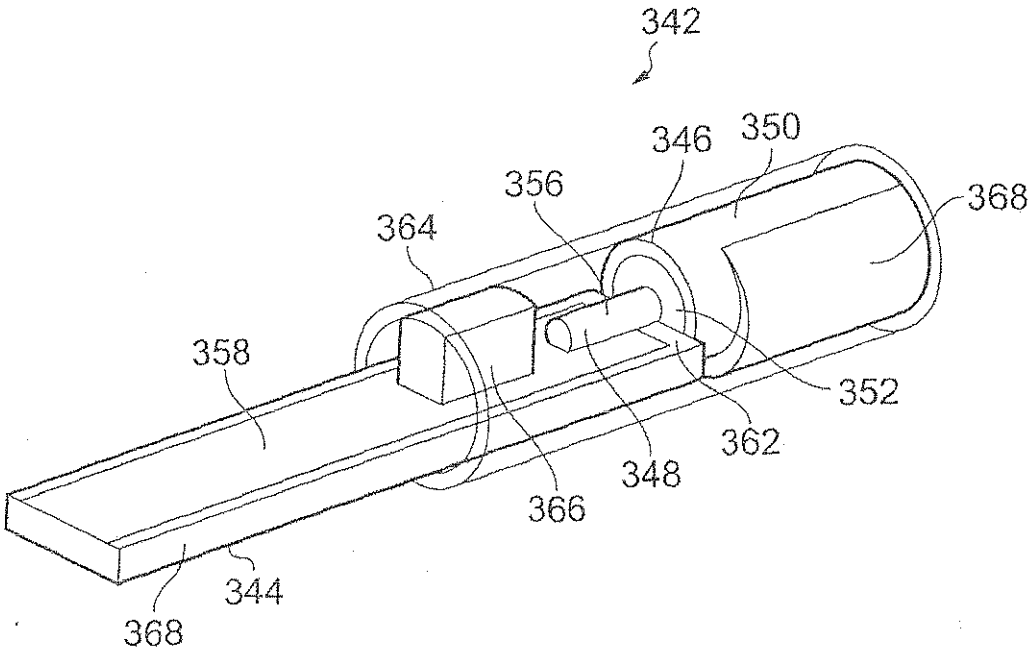

342
346
350
356
368
364
358
352
362
348
366
344
368

FIG. 12

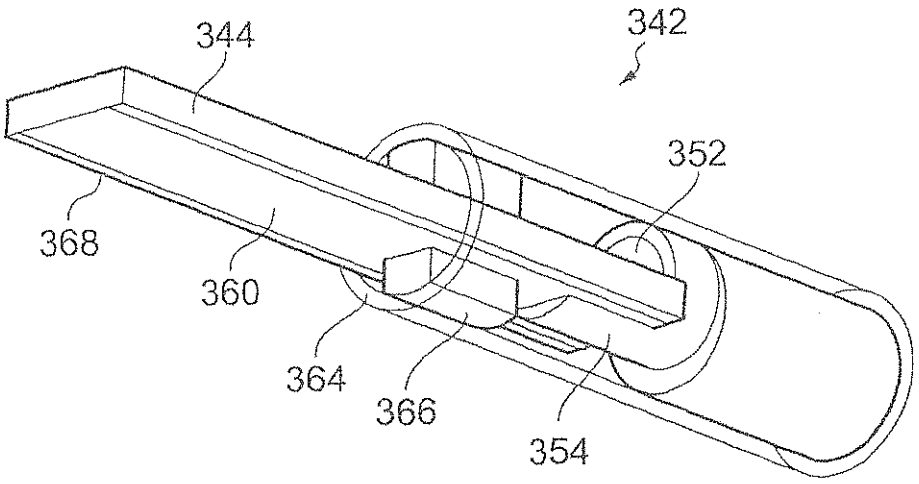

344
342
352
368
360
364
366
354

FIG. 13

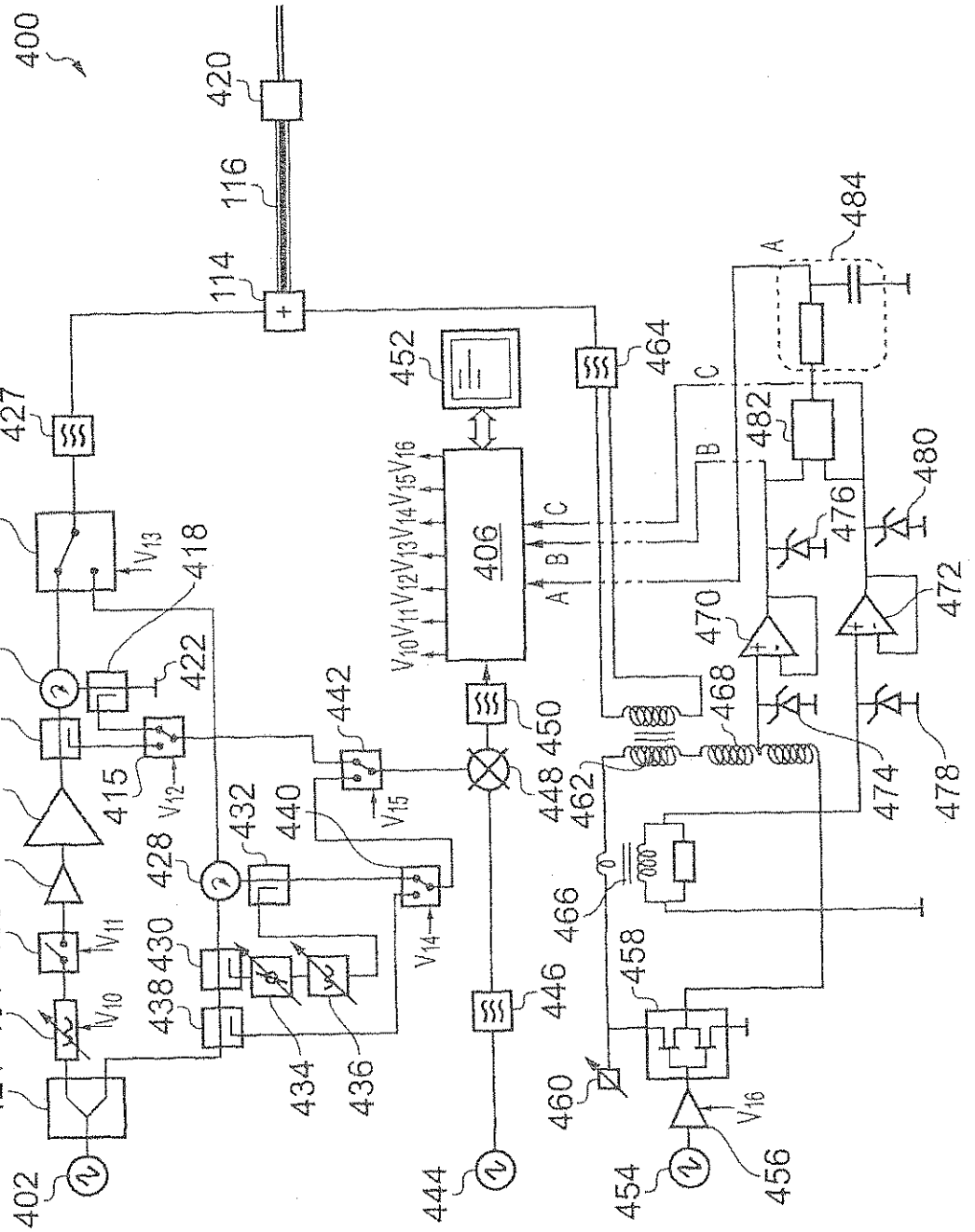

400
420
116
114
452
464
484
427
426
418
406
482
480
416
422
476
414
442
468
472
412
415
450
470
410
432
440
448
462
474
478
408
428
430
446
466
458
438
434
436
460
424
404
444
454
456
402

FIG. 14

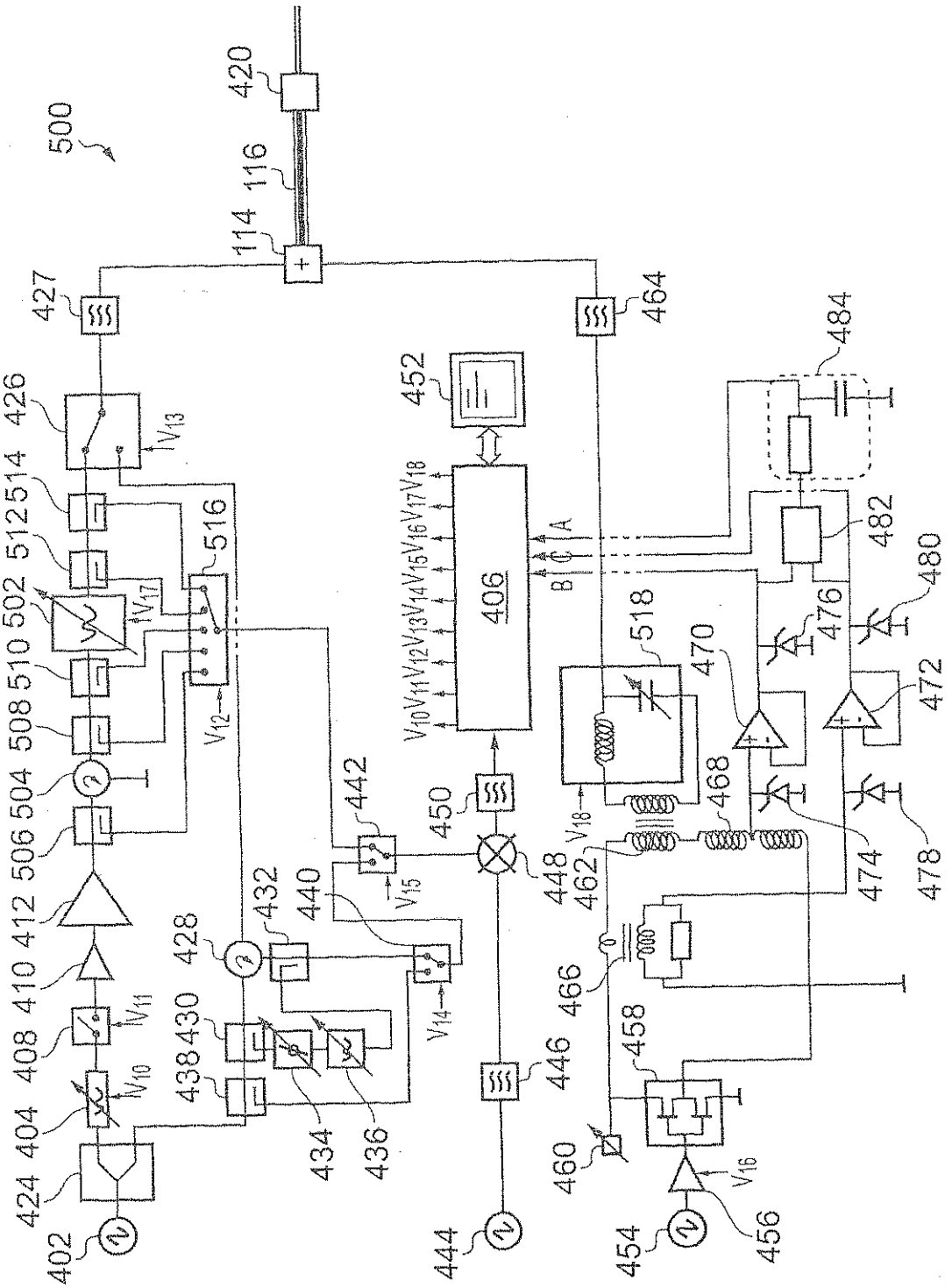

500
420
116
114
427
464
452
484
426
406
482
514
512
516
502
510
508
504
506
412
410
408
404
424
402
518
470
476
480
472
442
450
468
448
462
474
478
432
440
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466
430
438
434
436
458
446
460
444
454
456

FIG. 15

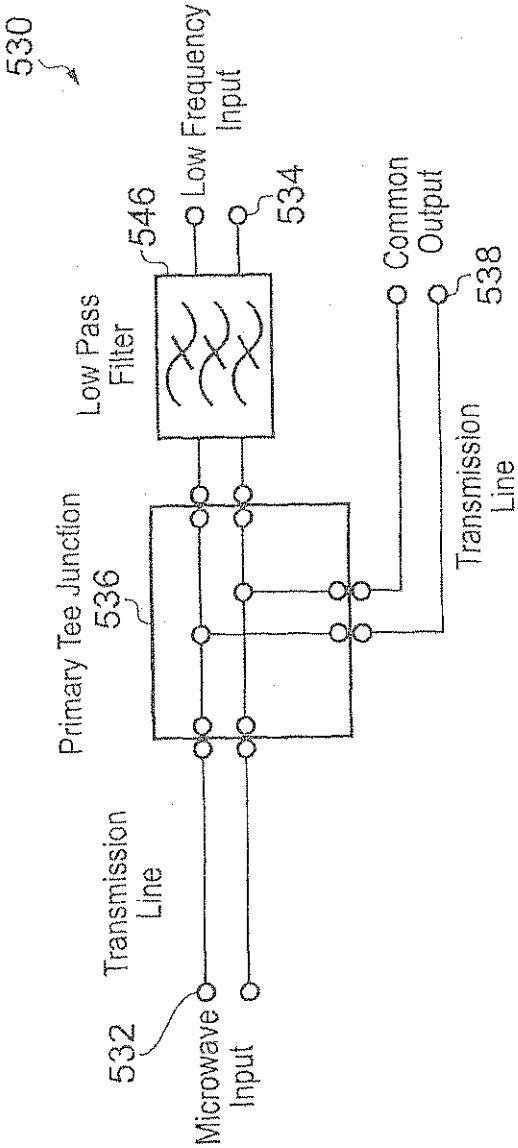

530
Low Frequency Input
546
534
Low Pass Filter
Common Output
538
Primary Tee Junction
536
Transmission Line
Transmission Line
532
Microwave Input

FIG. 16

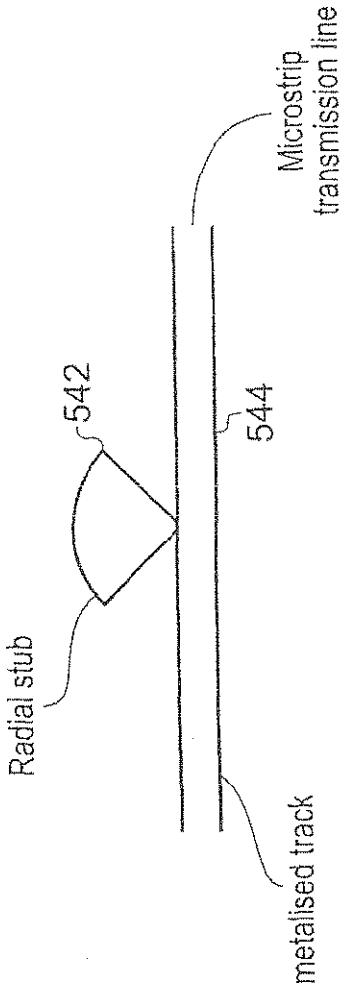

Microstrip transmission line
542
544
Radial stub
metalised track

FIG. 17

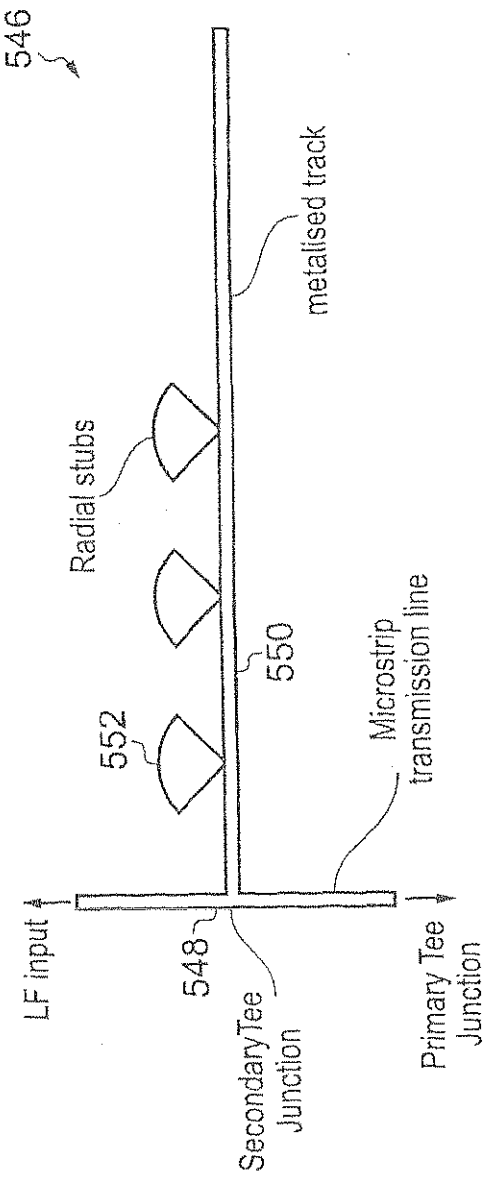

546
metalised track
Radial stubs
552
550
Microstrip transmission line
LF input
548
Secondary Tee Junction
Primary Tee Junction

FIG. 18

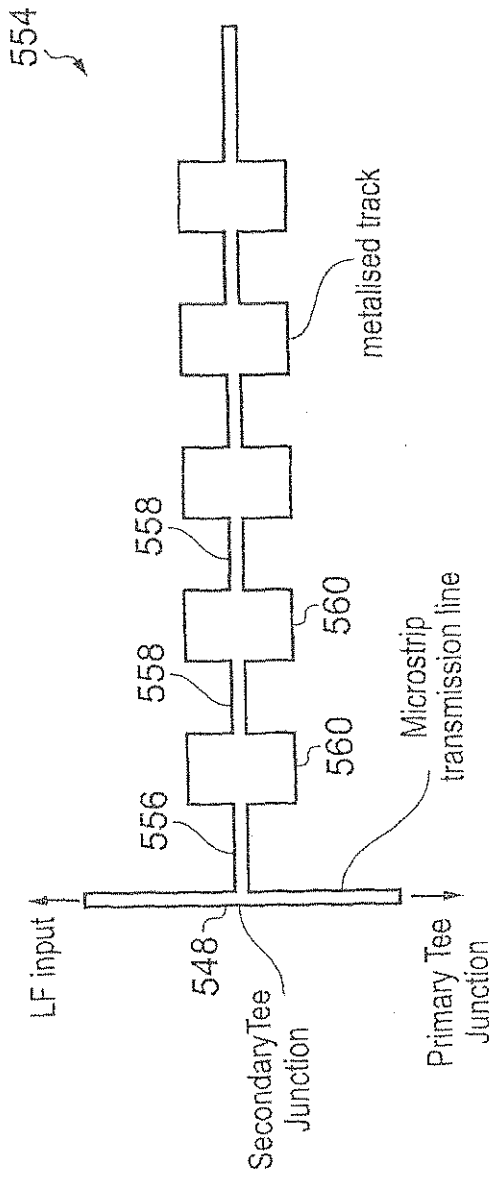

554
metalised track
558
558
560
560
556
Microstrip transmission line
LF input
548
Secondary Tee Junction
Primary Tee Junction

FIG. 19