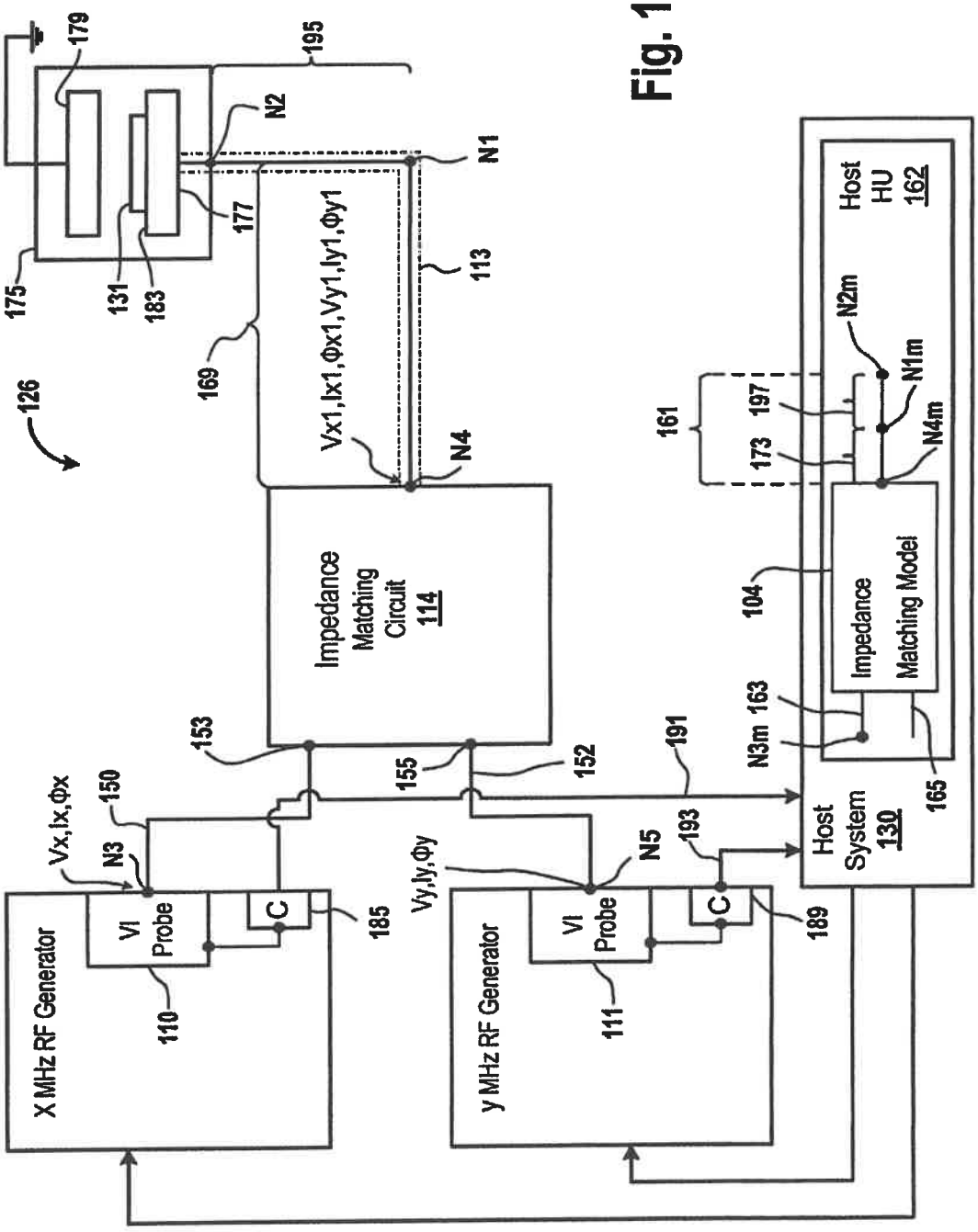

X MHz RF Generator
y MHz RF Generator
VI Probe
VI Probe
C
C
Impedance Matching Circuit 114
Impedance Matching Model
Host System 130
Host HU 162
Vx,Ix,Φx
Vy,Iy,Φy
Vx1,Ix1,Φx1,Vy1,Iy1,Φy1
N1
N2
N3
N4
N5
N1m
N2m
N3m
N4m
110
111
113
126
131
150
152
153
155
161
163
165
169
173
175
177
179
183
185
189
191
193
195
197

Fig. 1

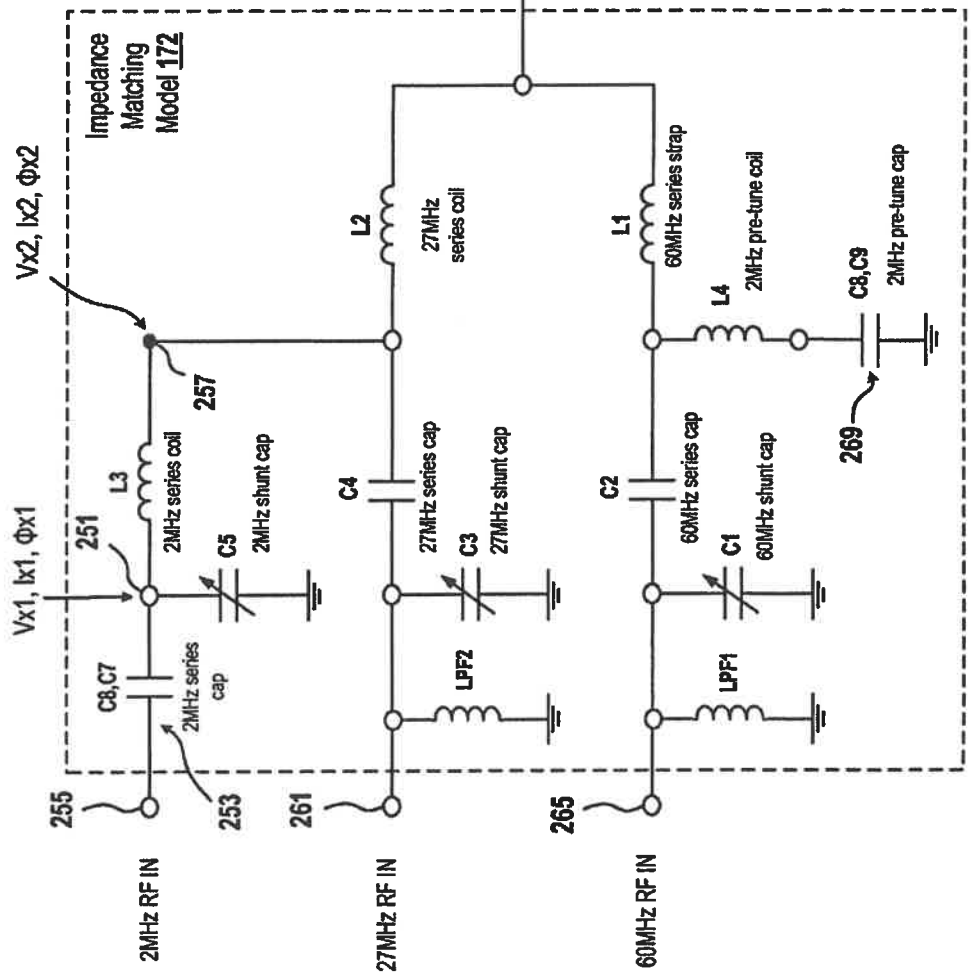

Impedance Matching Model 172
Vx2, Ix2, Φx2
Vx1, Ix1, Φx1
251
257
259
RF Out
V2,I2,Φ2, V27,I27,Φ27, V60,I60,Φ60
L3
2MHz series coil
C5
2MHz shunt cap
C8,C7
2MHz series cap
L2
27MHz series coil
C4
27MHz series cap
C3
27MHz shunt cap
LPF2
L1
60MHz series strap
C2
60MHz series cap
C1
60MHz shunt cap
LPF1
L4
2MHz pre-tune coil
C8,C9
2MHz pre-tune cap
269
255
253
261
265
2MHz RF IN
27MHz RF IN
60MHz RF IN

Fig. 3B

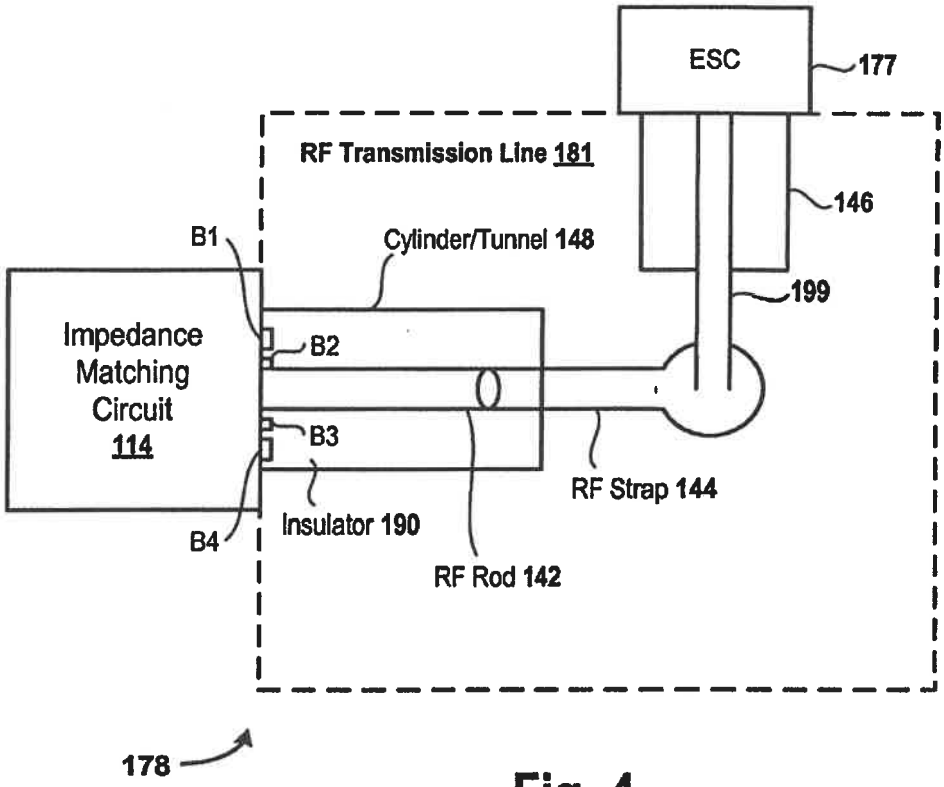

ESC
177
RF Transmission Line 181
146
B1
Cylinder/Tunnel 148
199
Impedance
Matching
Circuit
114
B2
B3
RF Strap 144
Insulator 190
B4
RF Rod 142
178

Fig. 4

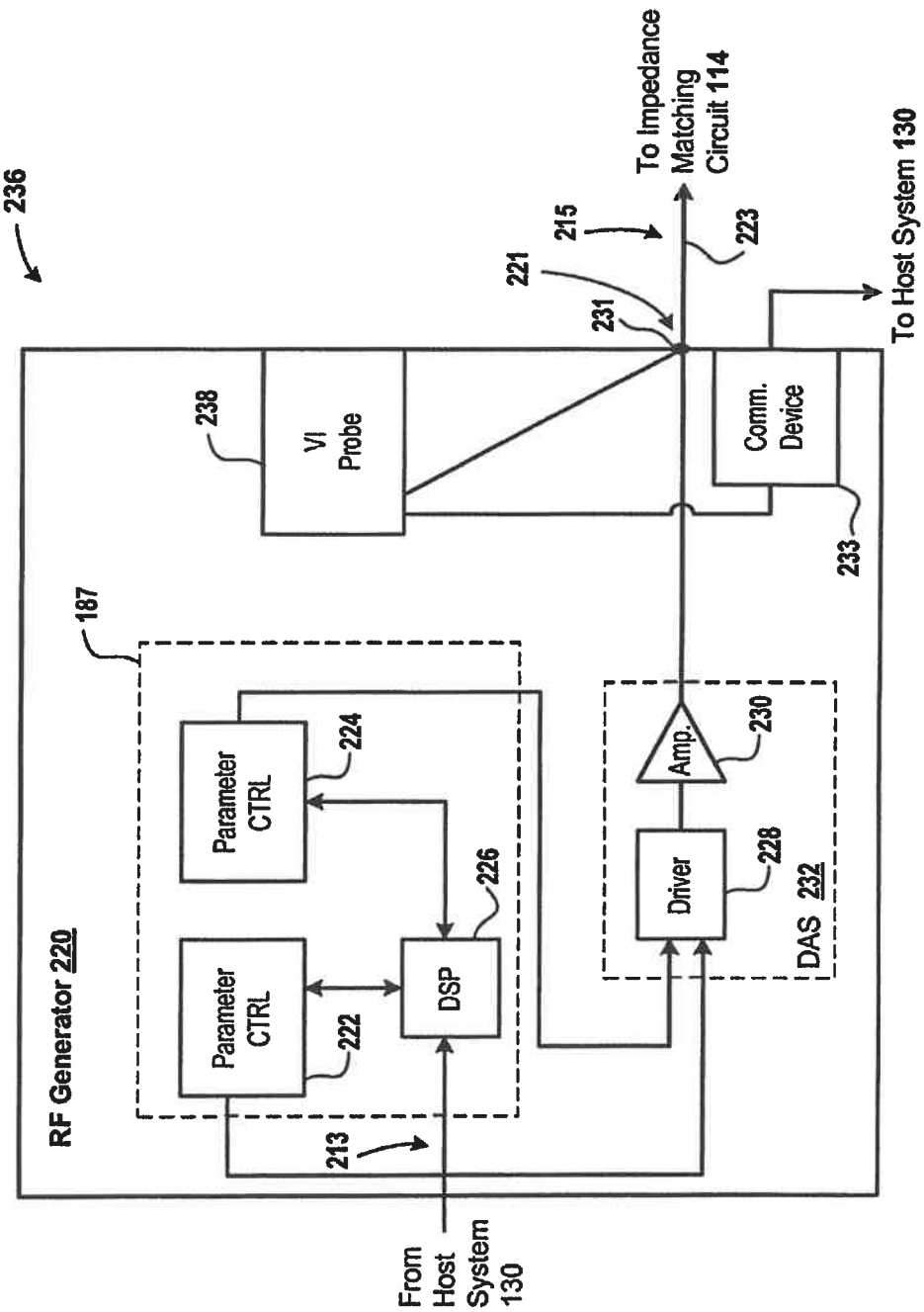

236
To Impedance Matching Circuit 114
To Host System 130
215
223
221
231
238
VI Probe
Comm. Device
233
187
RF Generator 220
Parameter CTRL
224
Parameter CTRL
222
DSP
226
Amp.
230
Driver
228
DAS 232
213
From Host System 130

Fig. 8