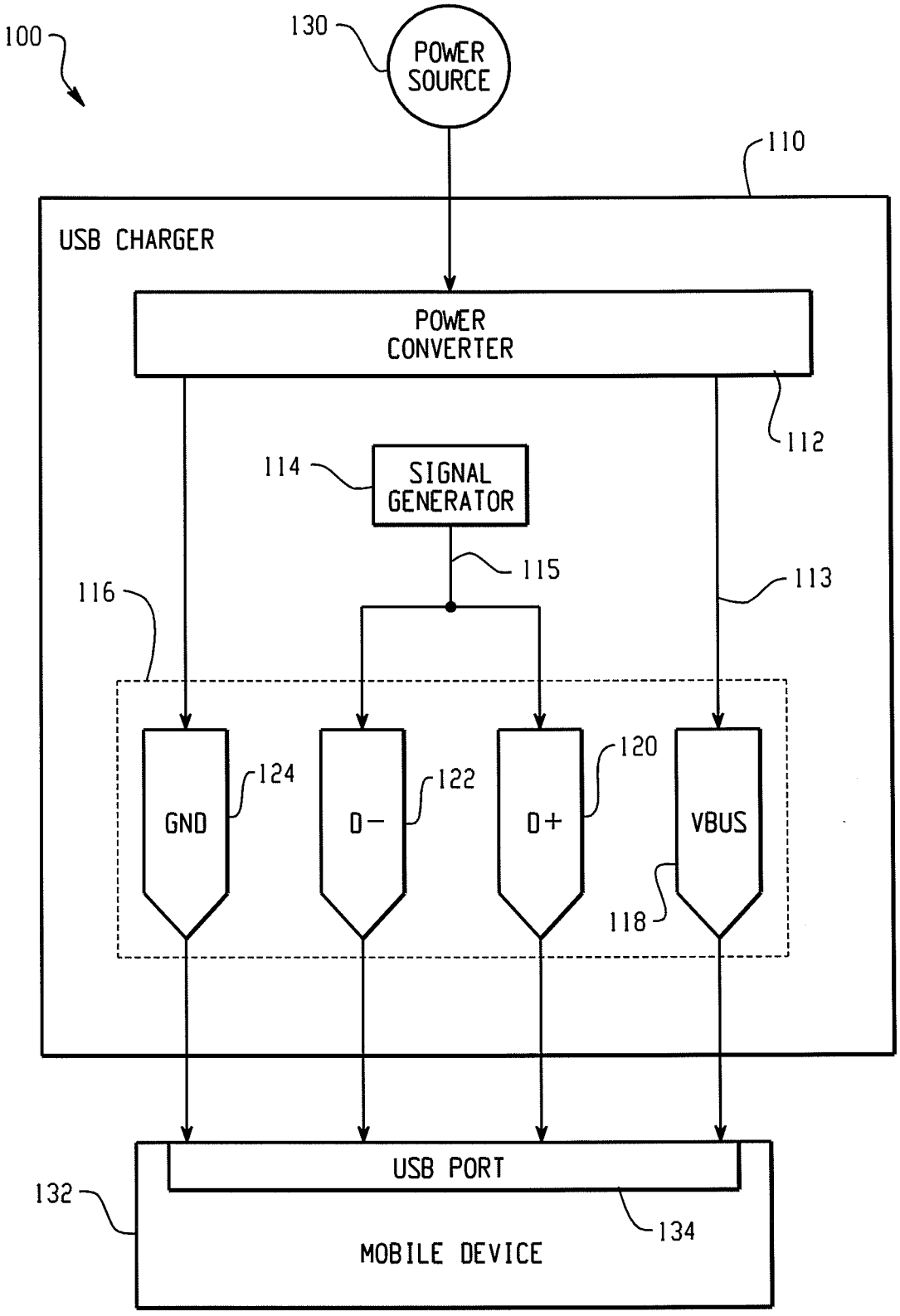

100
130
POWER SOURCE
110
USB CHARGER
POWER CONVERTER
112
114
SIGNAL GENERATOR
115
113
116
GND
124
D−
122
D+
120
VBUS
118
USB PORT
132
134
MOBILE DEVICE

Fig. 1

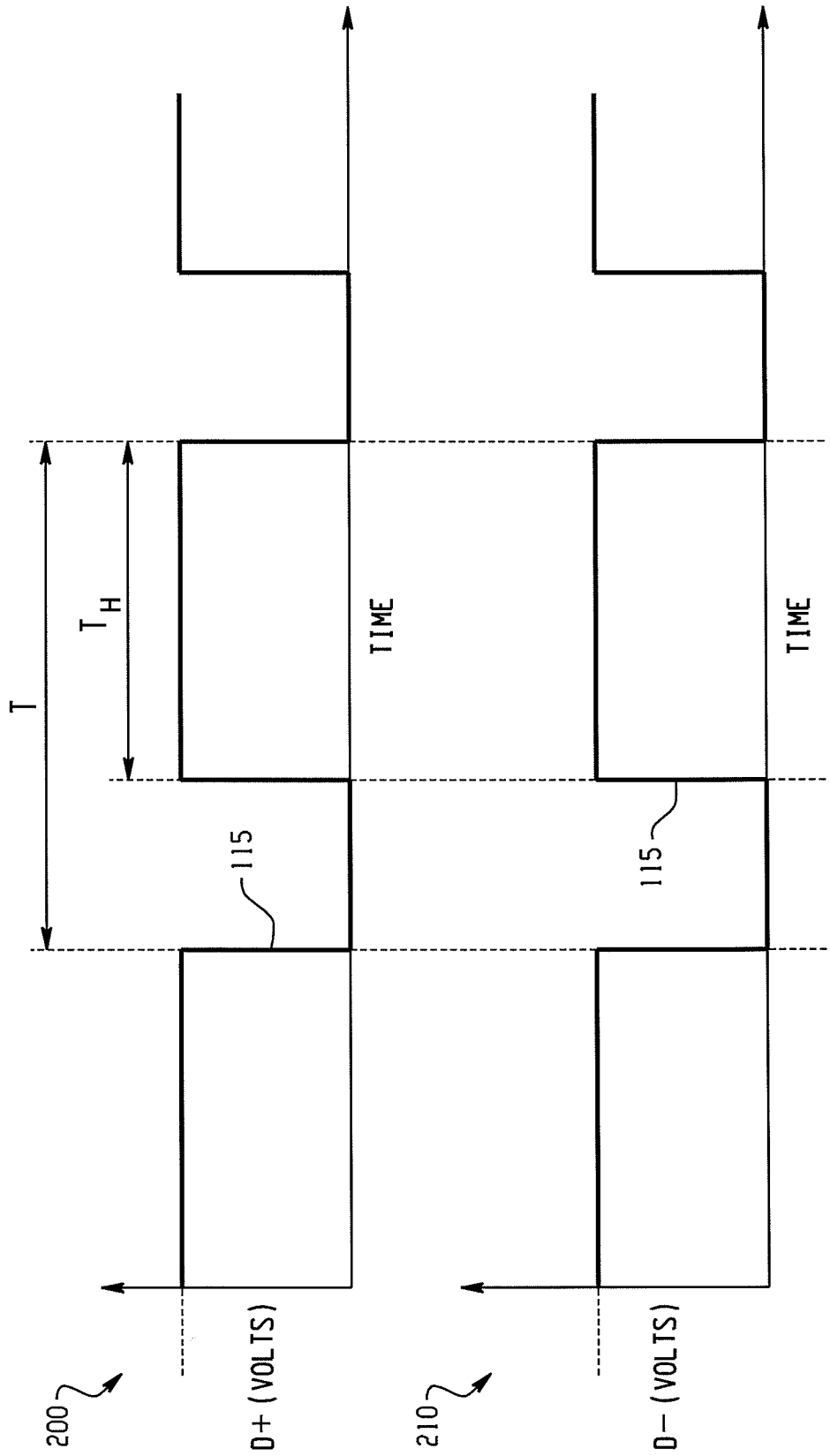


Fig. 2

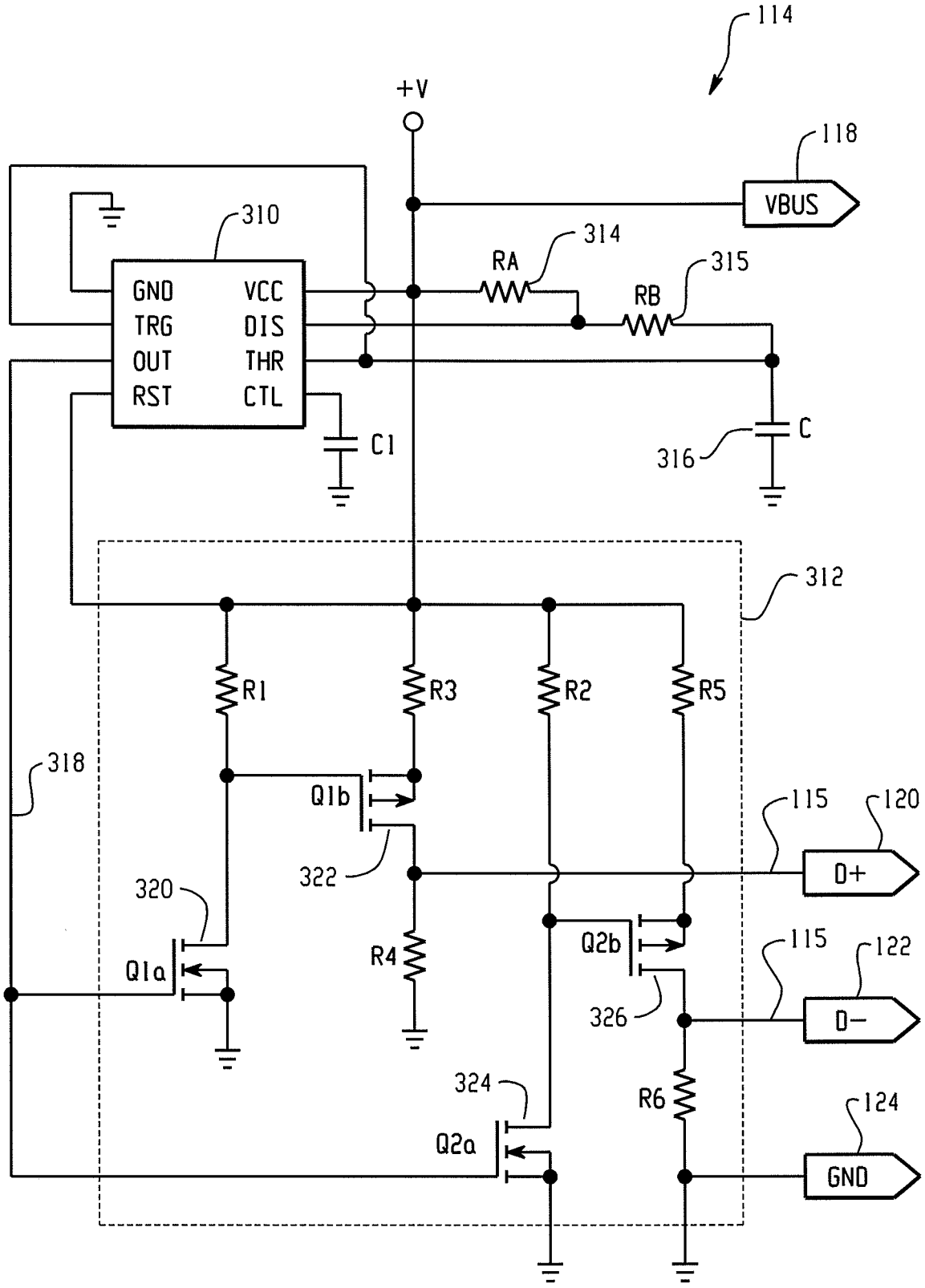

114
+V
118
VBUS
310
GND
TRG
OUT
RST
VCC
DIS
THR
CTL
314
RA
315
RB
C1
316
C
312
R1
R3
R2
R5
318
Q1b
322
115
120
D+
320
Q1a
R4
Q2b
115
122
D−
326
324
R6
Q2a
124
GND

Fig. 3

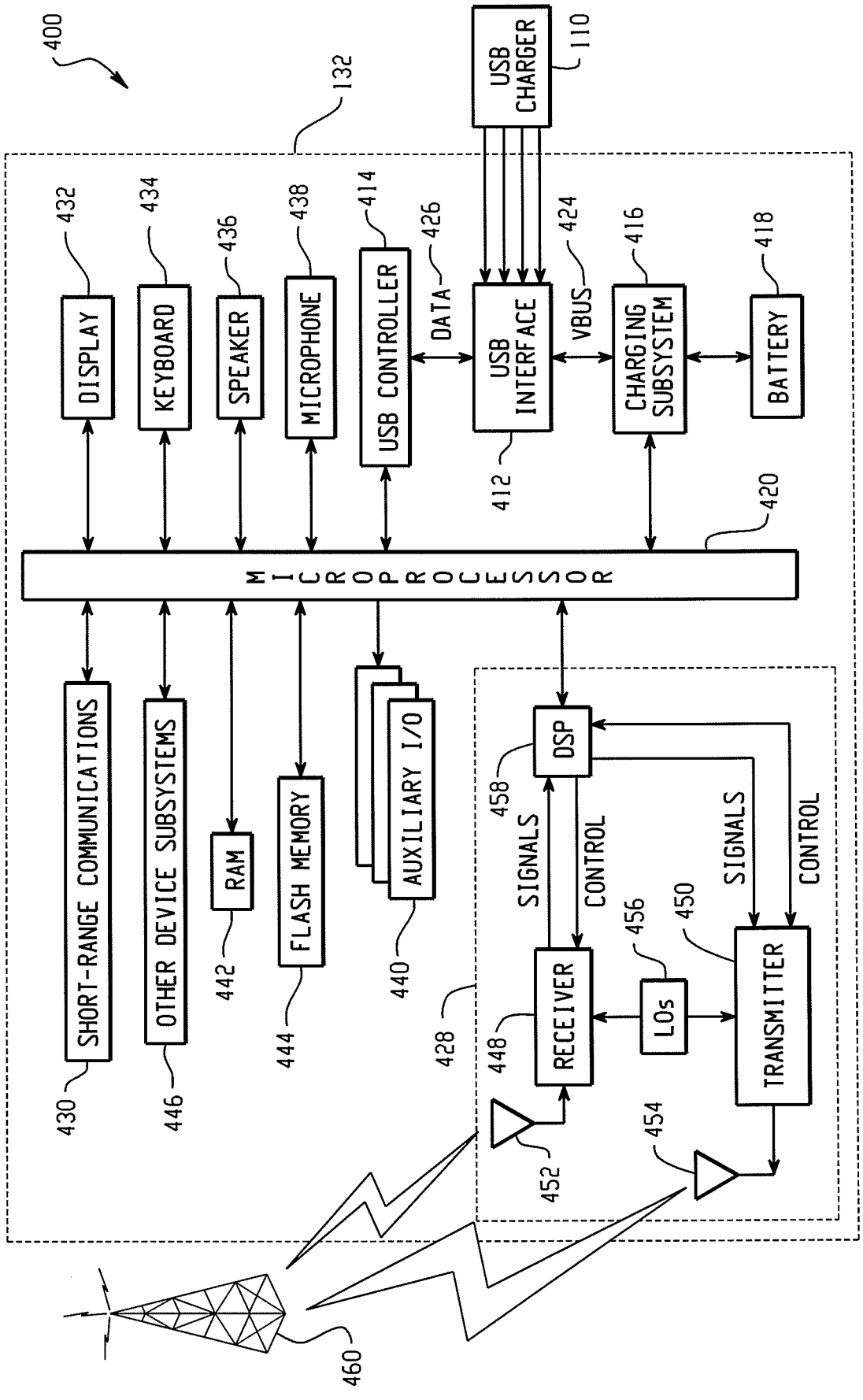

400
132
USB CHARGER
110
DISPLAY
KEYBOARD
SPEAKER
MICROPHONE
USB CONTROLLER
DATA
USB INTERFACE
VBUS
CHARGING SUBSYSTEM
BATTERY
412
420
MICROPROCESSOR
SHORT-RANGE COMMUNICATIONS
OTHER DEVICE SUBSYSTEMS
RAM
FLASH MEMORY
AUXILIARY I/O
DSP
SIGNALS
CONTROL
RECEIVER
LOs
TRANSMITTER
428
448
456
450
452
454
460
430
446
442
444
440
458
432
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436
438
414
426
424
416
418

Fig. 4

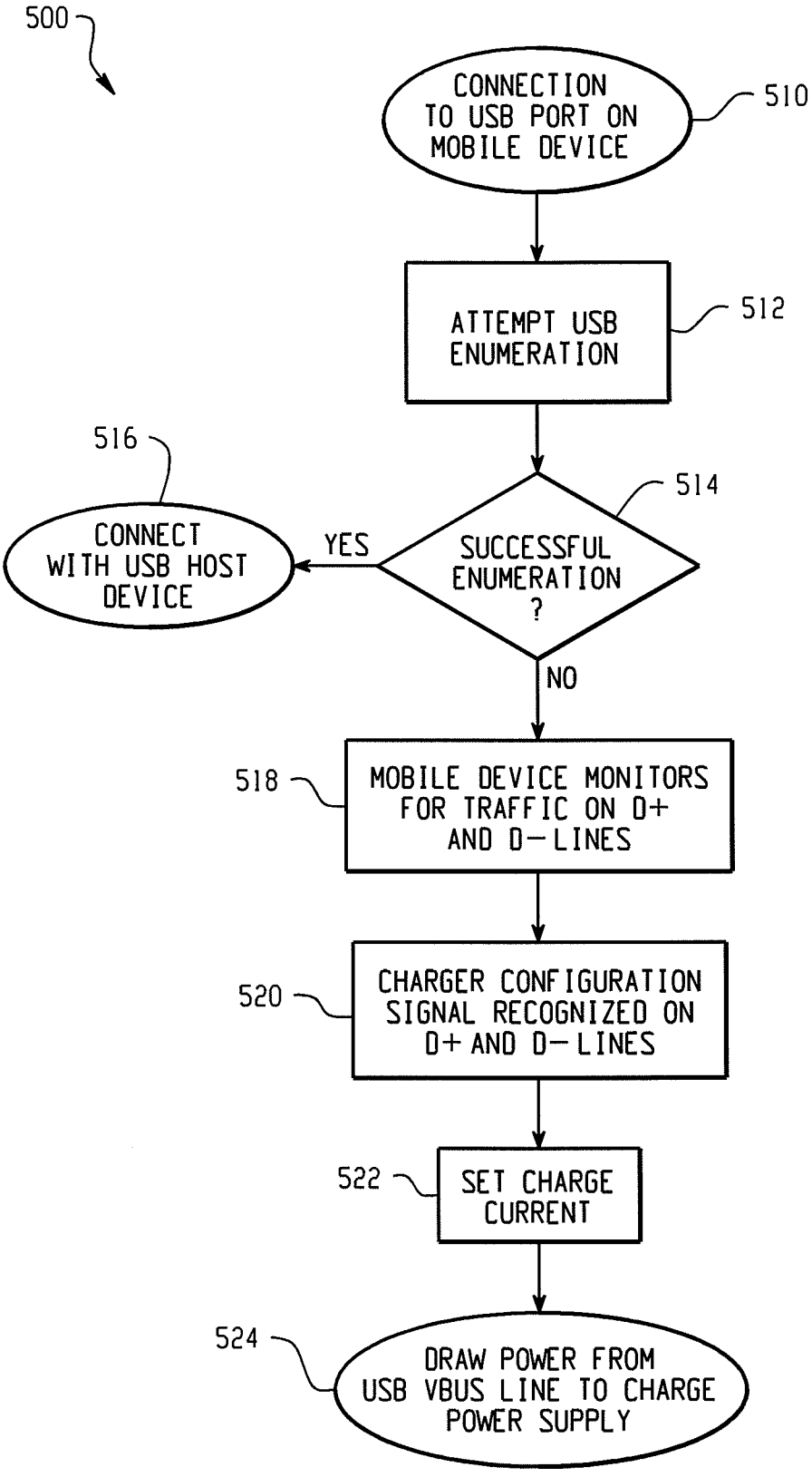

500
CONNECTION TO USB PORT ON MOBILE DEVICE
510
ATTEMPT USB ENUMERATION
512
516
CONNECT WITH USB HOST DEVICE
YES
SUCCESSFUL ENUMERATION ?
514
NO
518
MOBILE DEVICE MONITORS FOR TRAFFIC ON D+ AND D− LINES
520
CHARGER CONFIGURATION SIGNAL RECOGNIZED ON D+ AND D− LINES
522
SET CHARGE CURRENT
524
DRAW POWER FROM USB VBUS LINE TO CHARGE POWER SUPPLY

Fig. 5

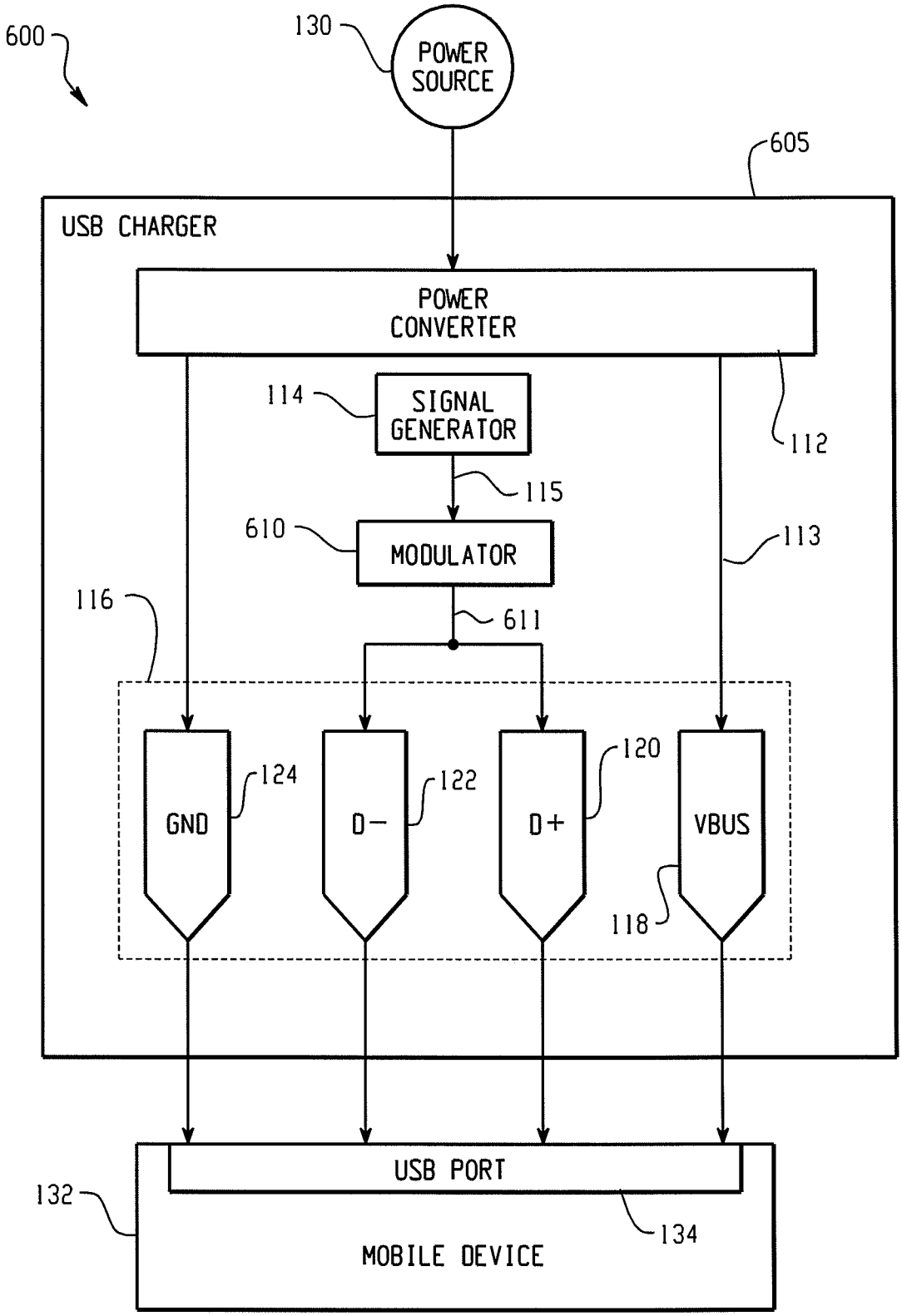

600
130
POWER SOURCE
605
USB CHARGER
POWER CONVERTER
114
SIGNAL GENERATOR
112
115
610
MODULATOR
113
116
611
GND
124
D−
122
D+
120
VBUS
118
USB PORT
132
134
MOBILE DEVICE

Fig. 6