FIG. 1

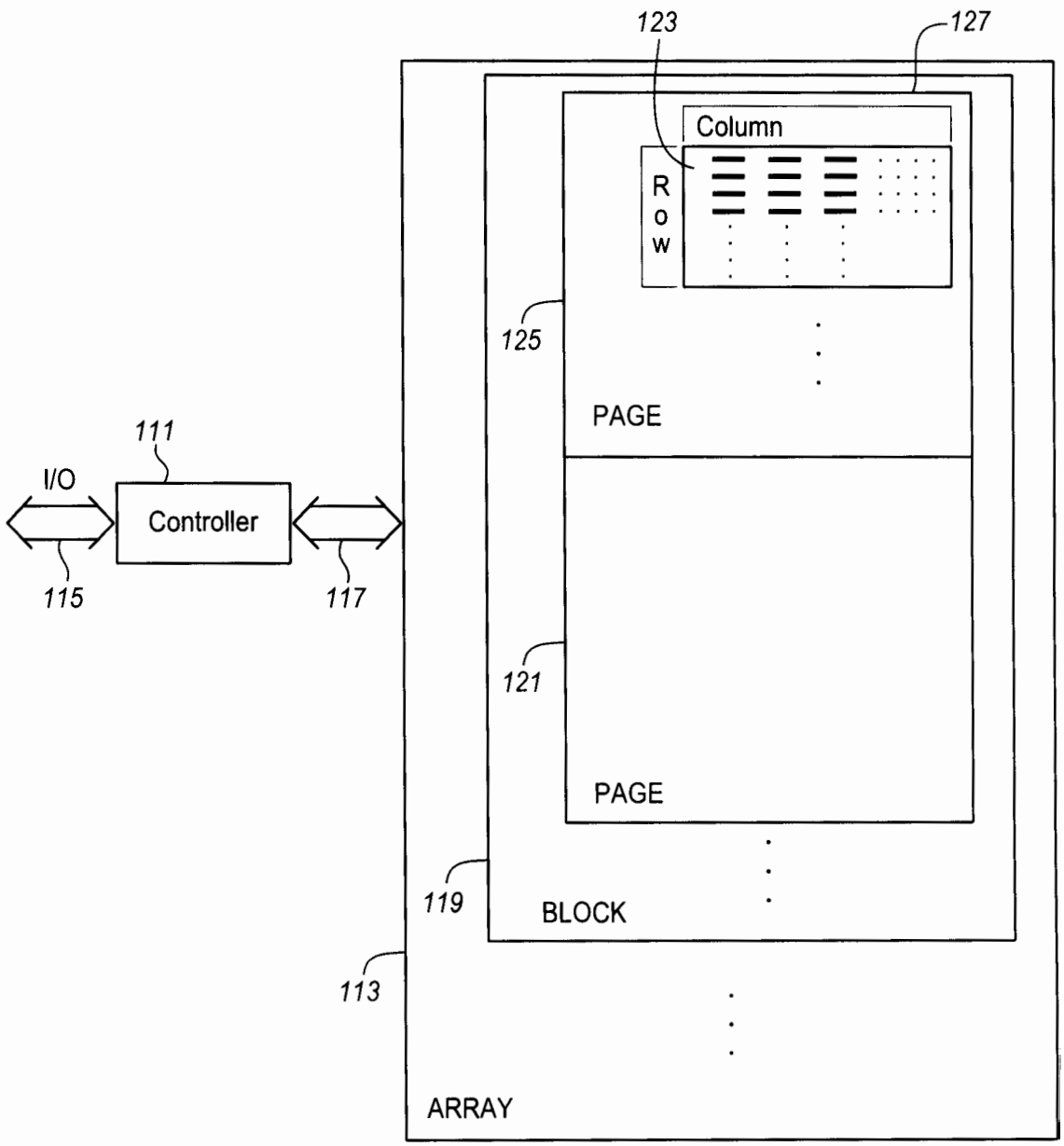

123
127
Column
Row
125
PAGE
111
I/O
Controller
115
117
121
PAGE
119
BLOCK
113
ARRAY

FIG. 2

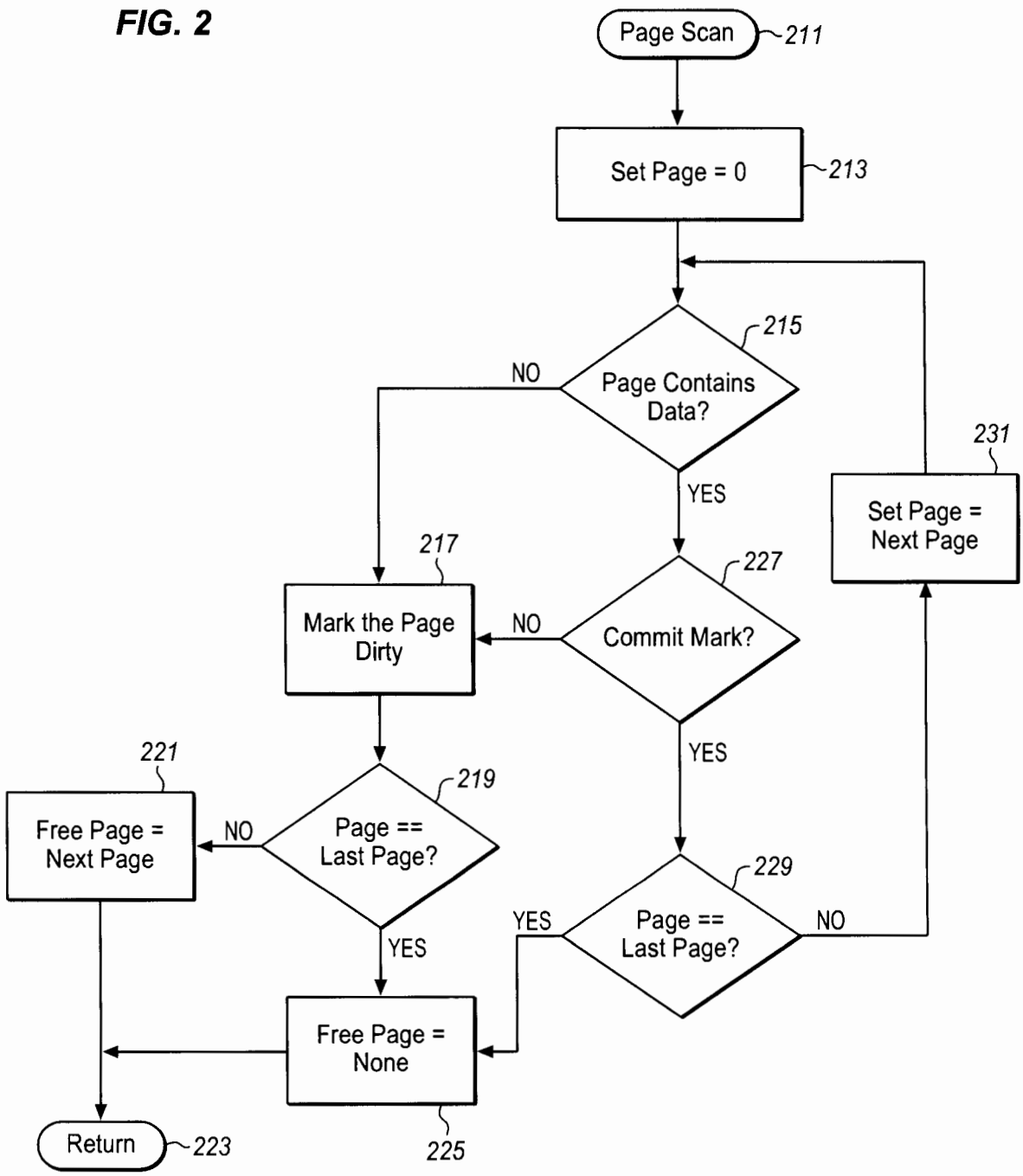

Page Scan
211
Set Page = 0
213
215
Page Contains Data?
NO
YES
231
Set Page = Next Page
217
Mark the Page Dirty
227
Commit Mark?
NO
YES
221
Free Page = Next Page
219
Page == Last Page?
NO
YES
229
Page == Last Page?
YES
NO
Free Page = None
225
Return
223

FIG. 3

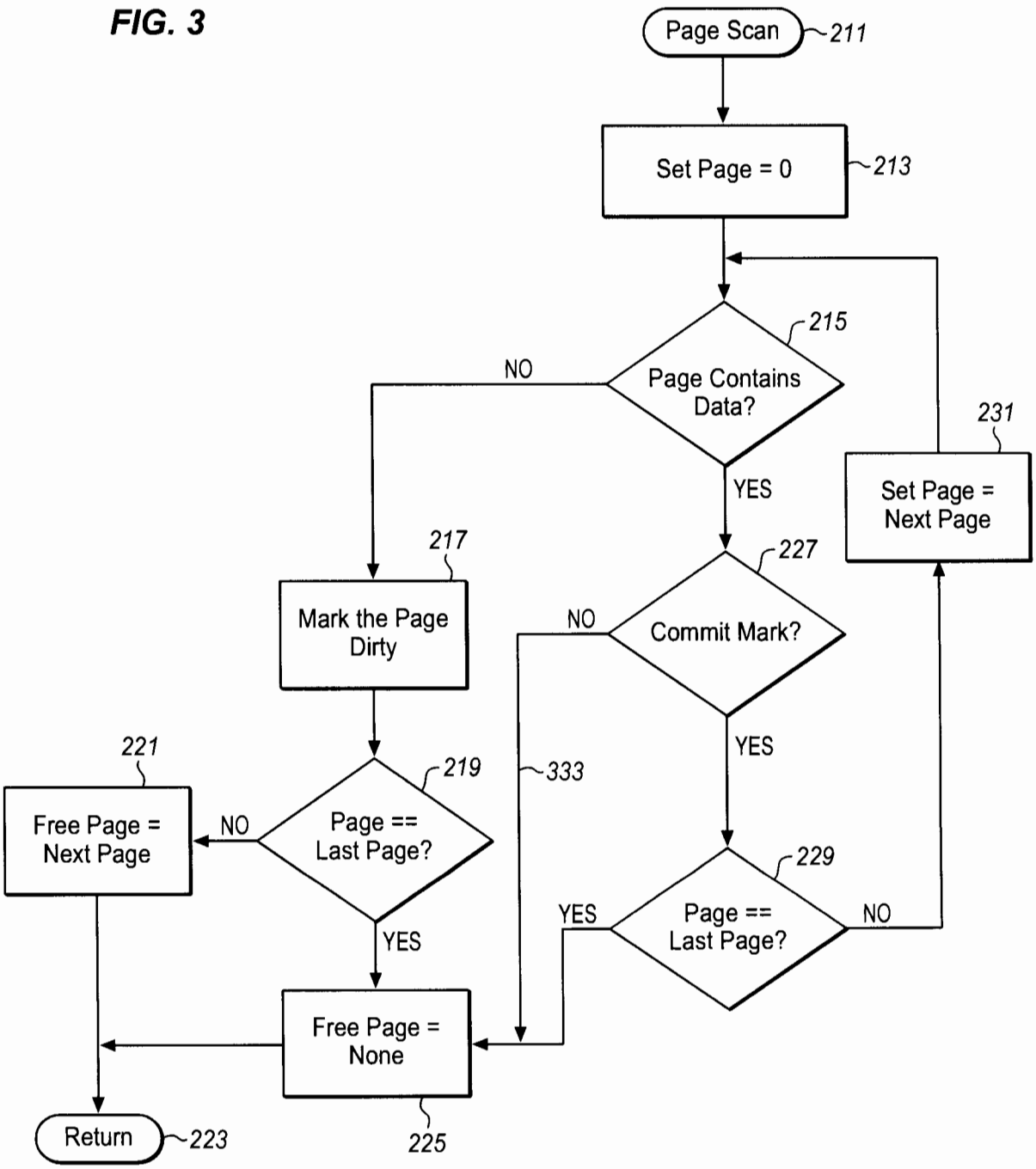

Page Scan
211
Set Page = 0
213
215
Page Contains Data?
NO
YES
231
Set Page = Next Page
217
Mark the Page Dirty
227
Commit Mark?
NO
YES
333
221
Free Page = Next Page
219
Page == Last Page?
NO
YES
229
Page == Last Page?
YES
NO
Free Page = None
225
Return
223

FIG. 4

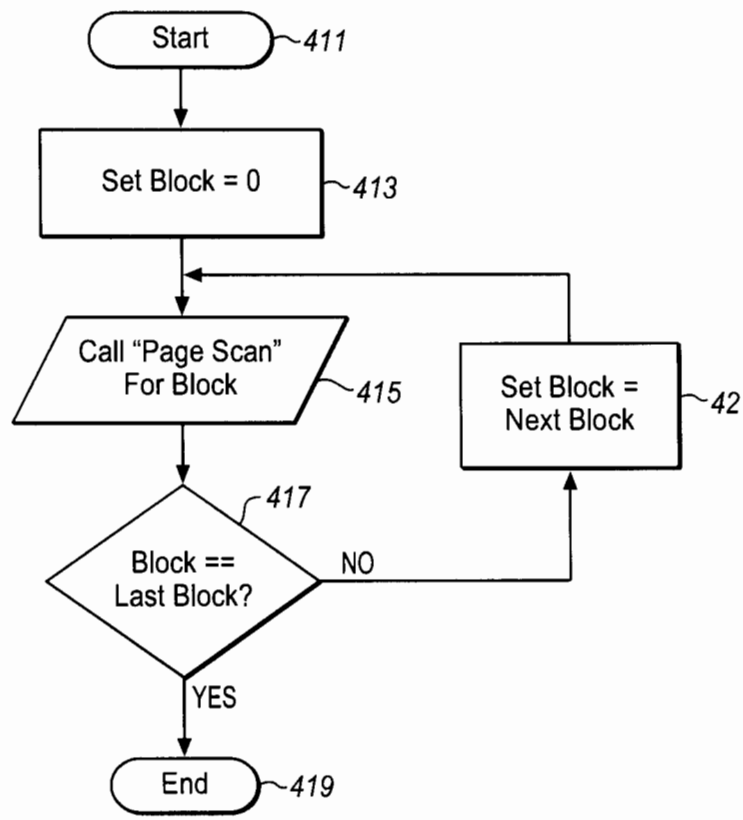

Start
411
Set Block = 0
413
Call "Page Scan" For Block
415
Set Block = Next Block
421
417
Block == Last Block?
NO
YES
End
419

FIG. 5

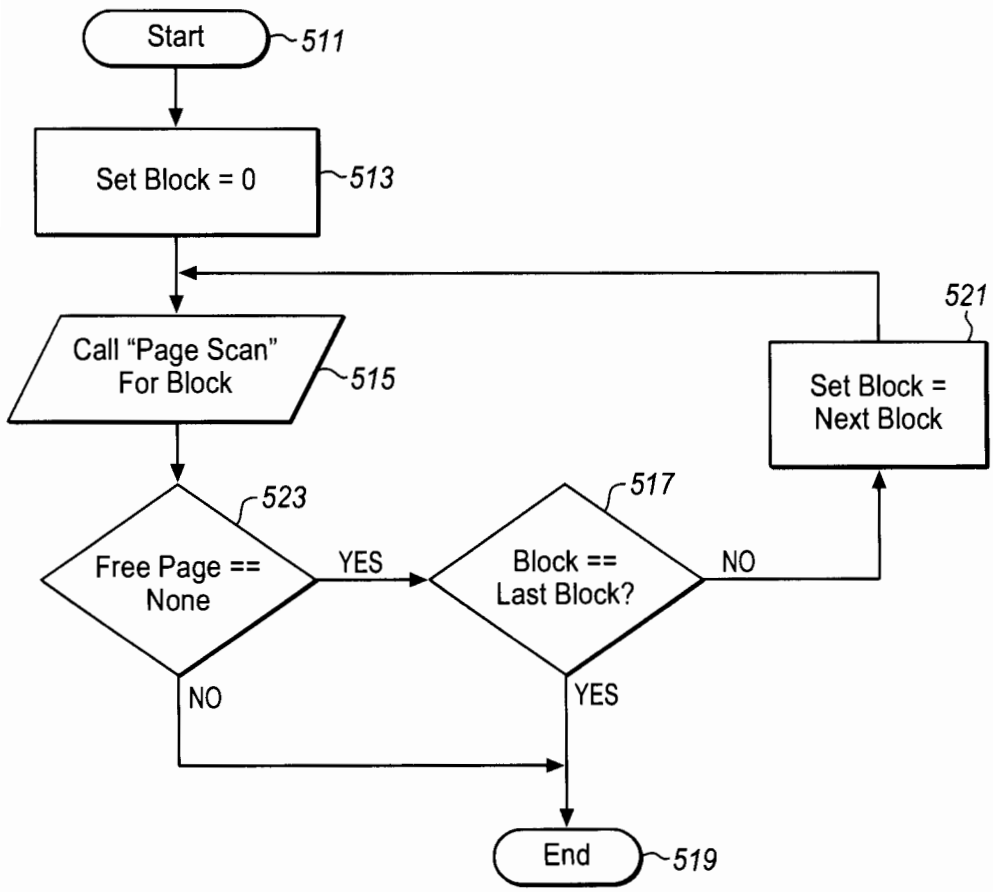

Start
511
Set Block = 0
513
Call "Page Scan" For Block
515
521
Set Block = Next Block
523
Free Page == None
YES
517
Block == Last Block?
NO
NO
YES
End
519

FIG. 6

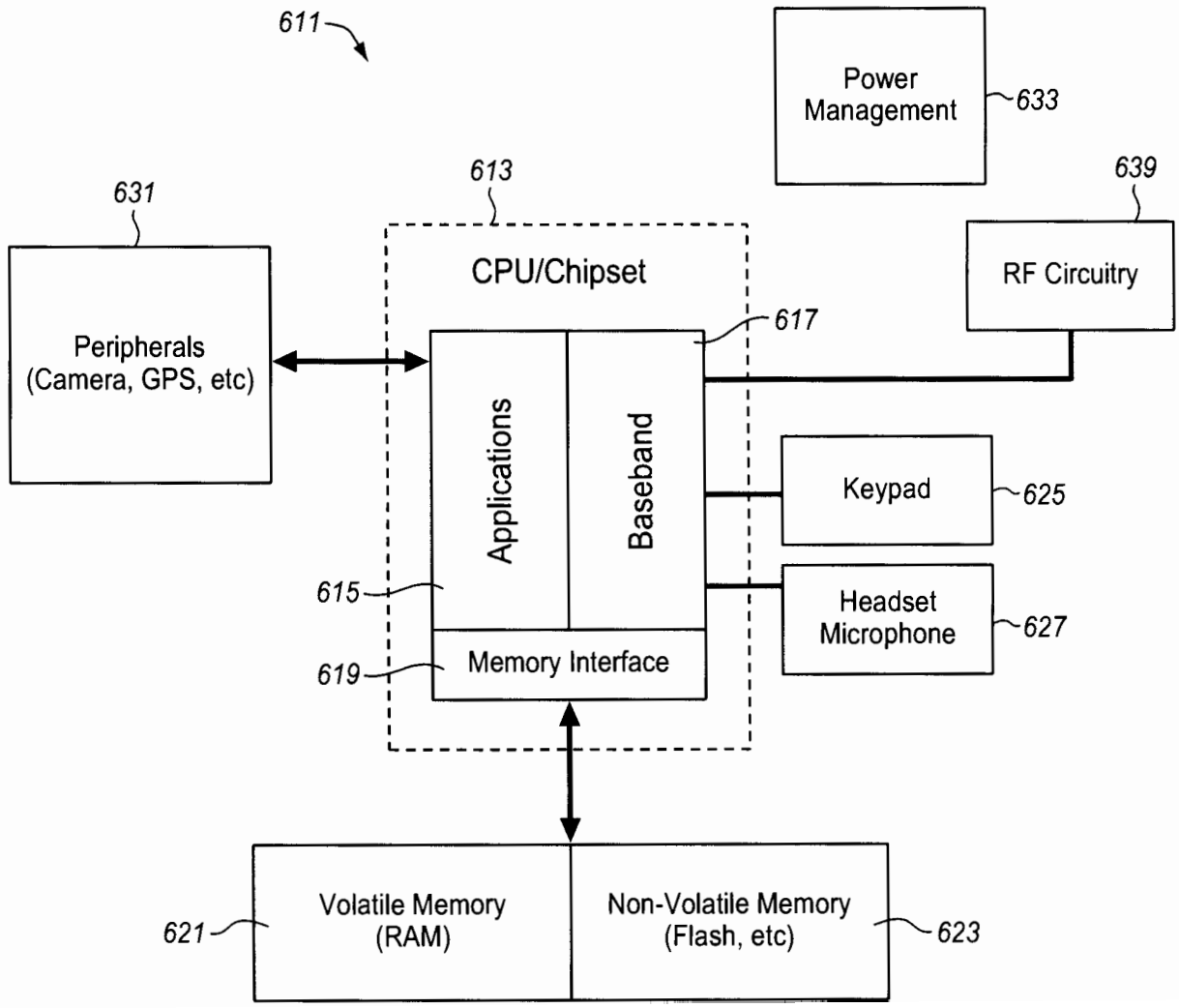
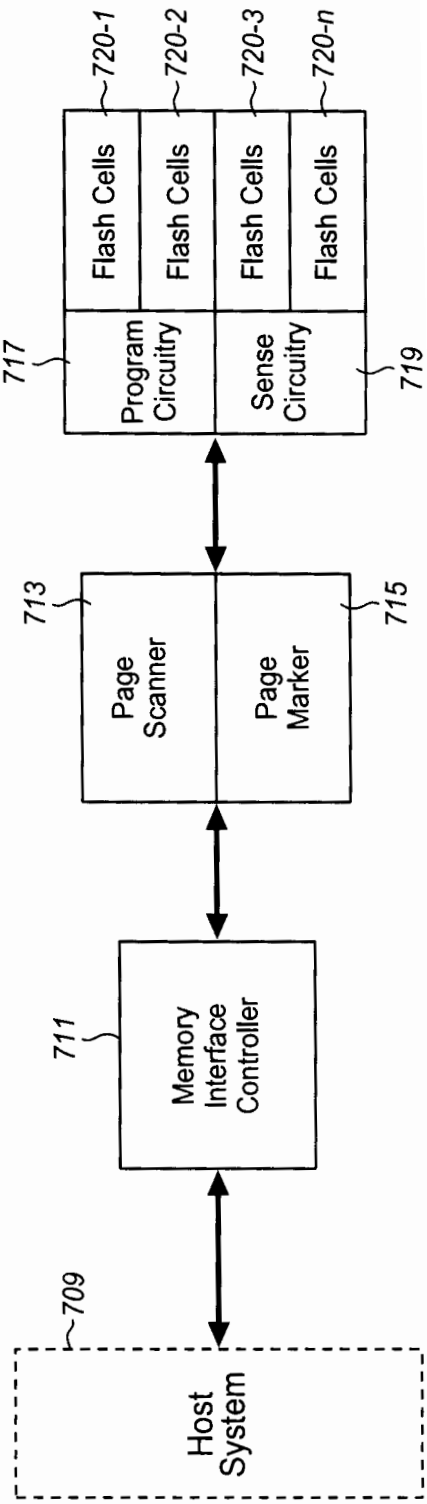

611
Power Management
633
613
639
631
CPU/Chipset
RF Circuitry
Peripherals (Camera, GPS, etc)
617
Applications
Baseband
Keypad
625
615
Headset Microphone
627
619
Memory Interface
Volatile Memory (RAM)
Non-Volatile Memory (Flash, etc)
621
623

FIG. 7


Host System
709
Memory Interface Controller
711
Page Scanner
713
Page Marker
715
Program Circuitry
717
Sense Circuitry
719
Flash Cells
720-1
Flash Cells
720-2
Flash Cells
720-3
Flash Cells
720-n