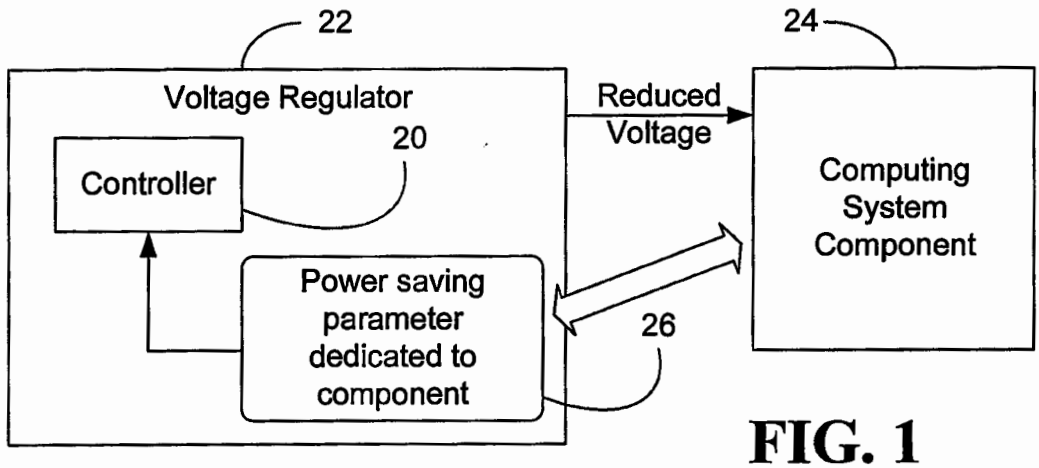

22
24
Voltage Regulator
Reduced Voltage
20
Controller
Computing System Component
Power saving parameter dedicated to component
26

FIG. 1

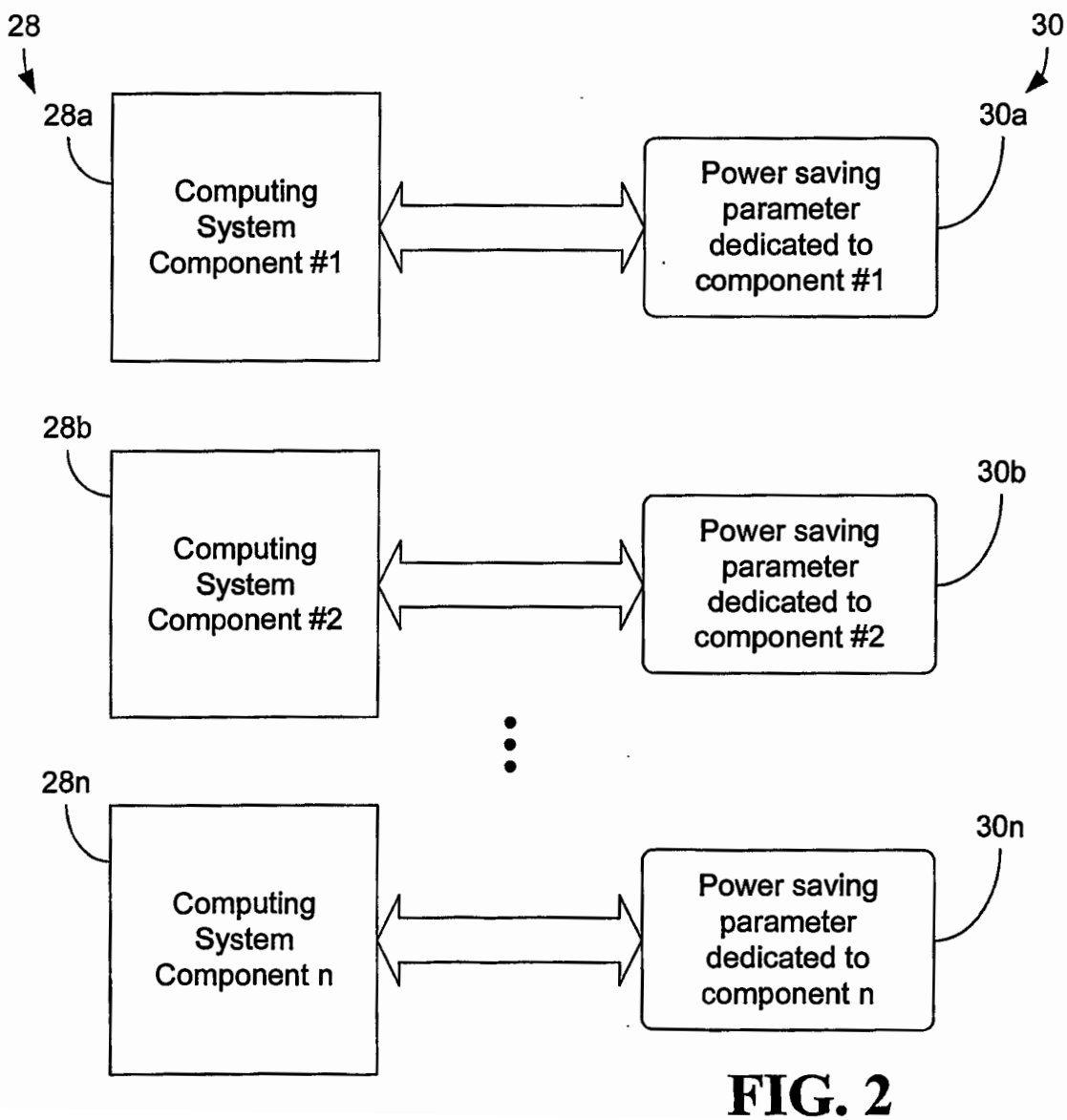

28
30
28a
30a
Computing System Component #1
Power saving parameter dedicated to component #1
28b
30b
Computing System Component #2
Power saving parameter dedicated to component #2
28n
30n
Computing System Component n
Power saving parameter dedicated to component n

FIG. 2

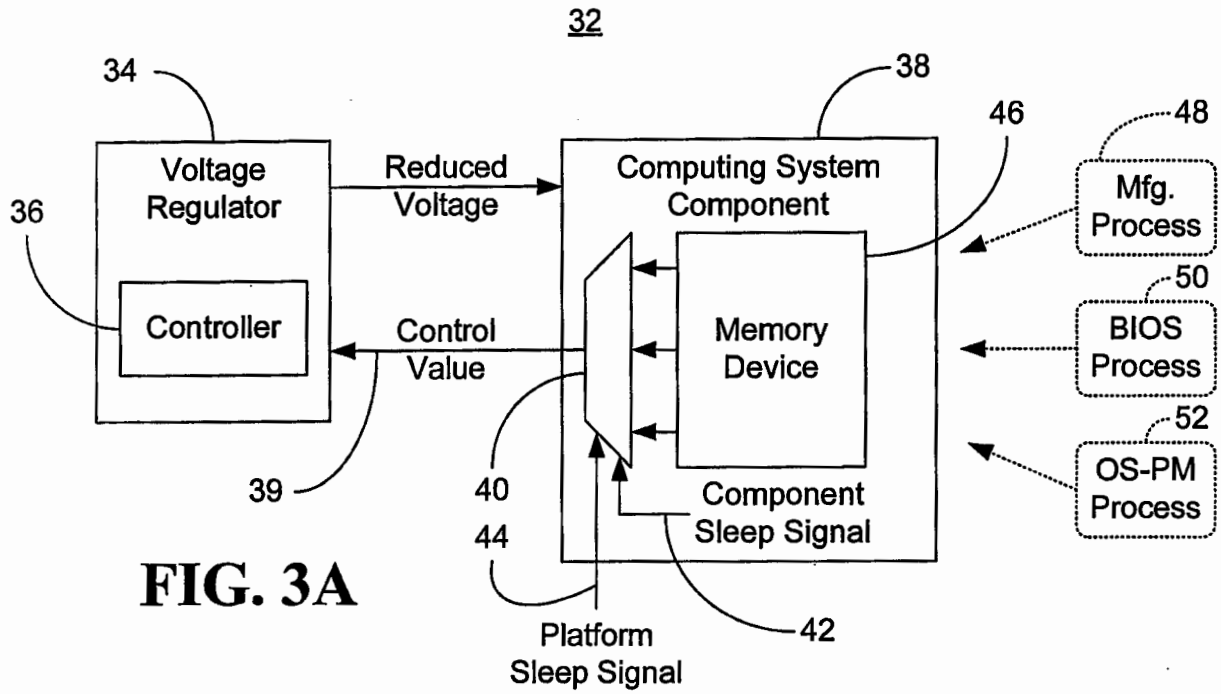

32
34
Voltage Regulator
36
Controller
Reduced Voltage
Control Value
39
38
Computing System Component
Memory Device
40
44
Platform Sleep Signal
Component Sleep Signal
42
46
48
Mfg. Process
50
BIOS Process
52
OS-PM Process

FIG. 3A

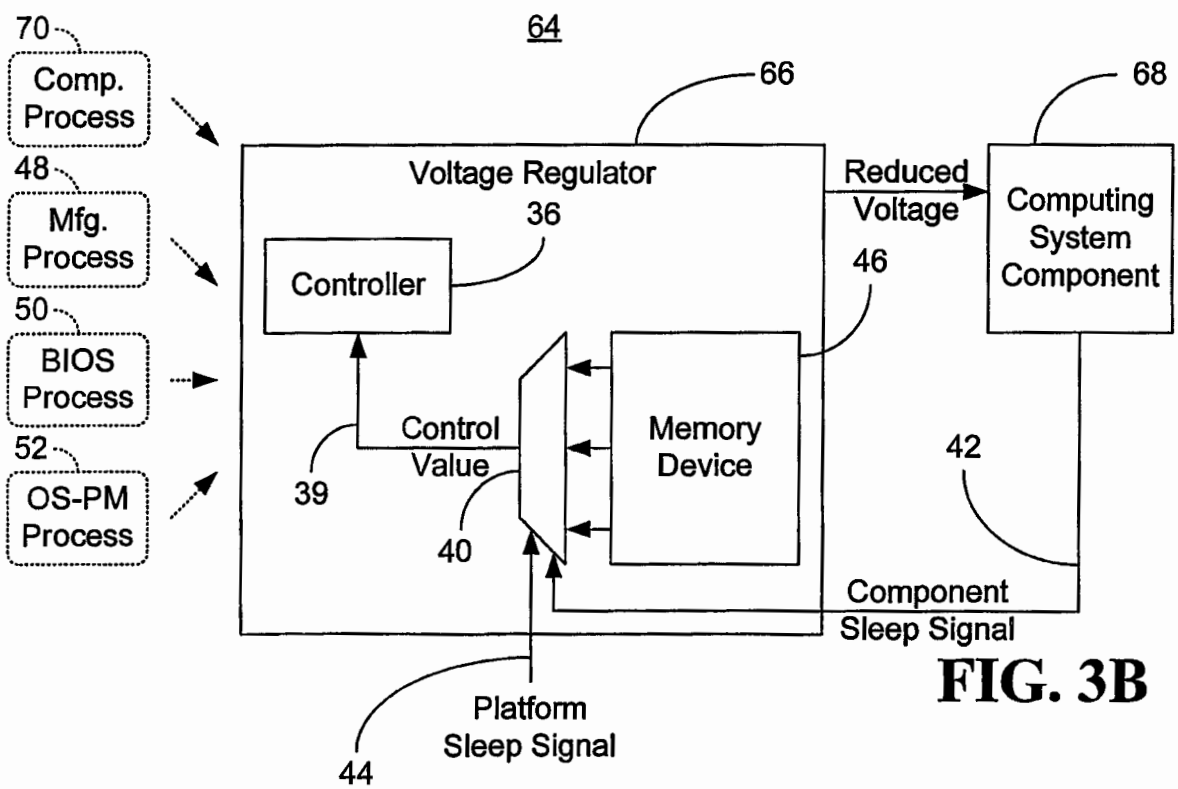

64
70
Comp. Process
48
Mfg. Process
50
BIOS Process
52
OS-PM Process
66
Voltage Regulator
36
Controller
Reduced Voltage
68
Computing System Component
46
Control Value
39
40
Memory Device
42
Component Sleep Signal
Platform Sleep Signal
44

FIG. 3B

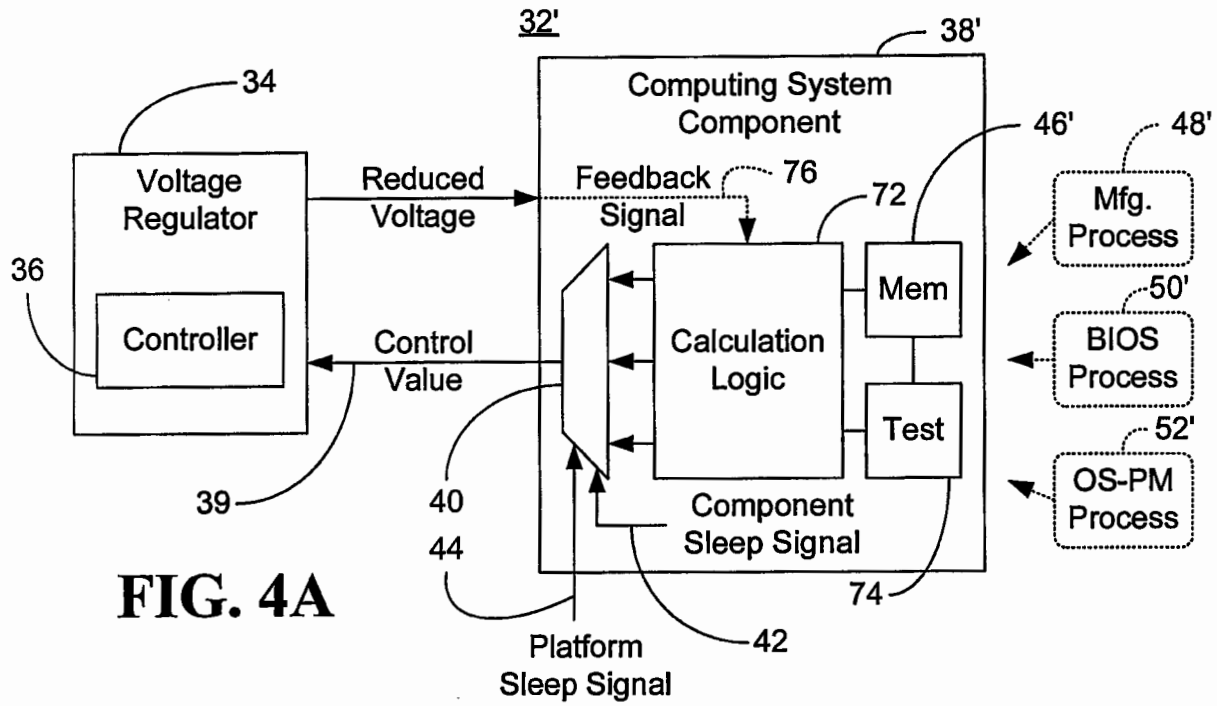

32'
38'
34
Computing System Component
46'
48'
Voltage Regulator
Reduced Voltage
Feedback Signal
76
72
Mfg. Process
36
Controller
Control Value
Calculation Logic
Mem
50'
BIOS Process
Test
52'
OS-PM Process
39
40
Component Sleep Signal
44
74
42
Platform Sleep Signal

FIG. 4A

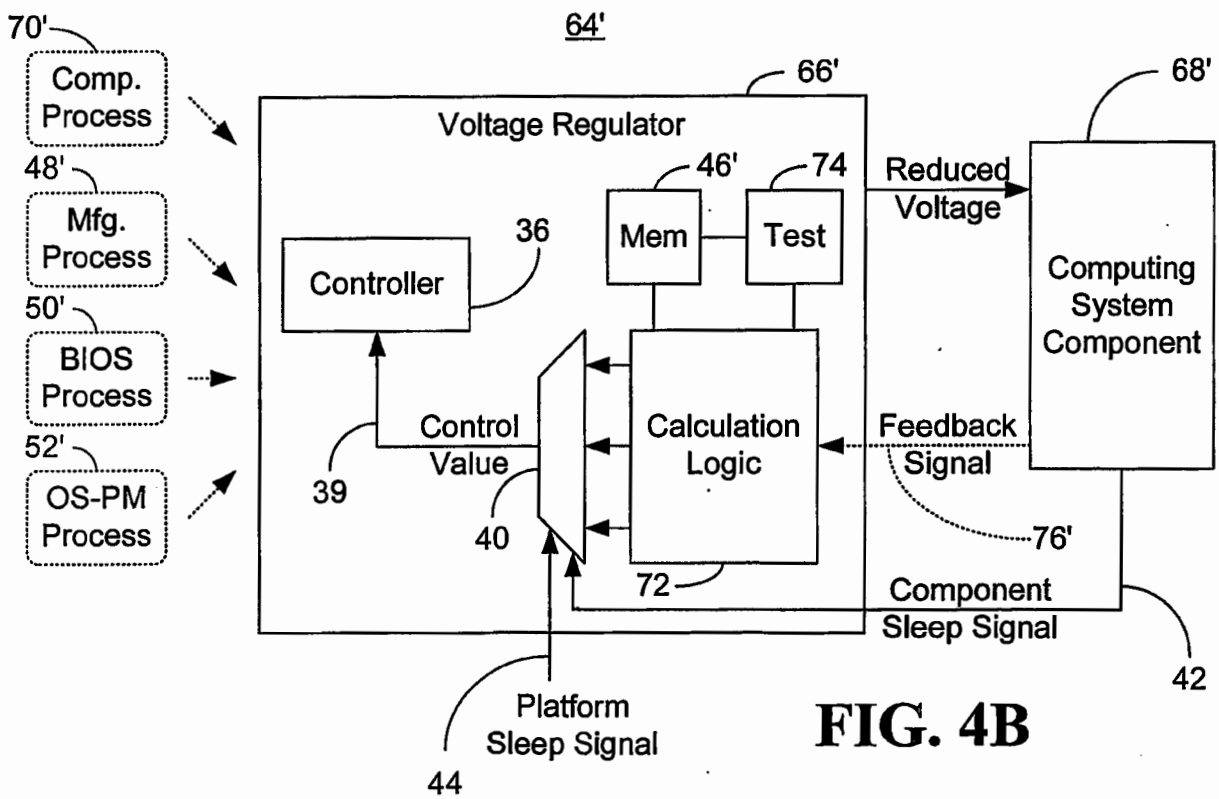

64'
70'
Comp. Process
66'
68'
Voltage Regulator
48'
Mfg. Process
46'
74
Reduced Voltage
Mem
Test
36
Controller
50'
BIOS Process
Computing System Component
Control Value
Calculation Logic
Feedback Signal
52'
OS-PM Process
39
40
76'
72
Component Sleep Signal
42
Platform Sleep Signal
44

FIG. 4B

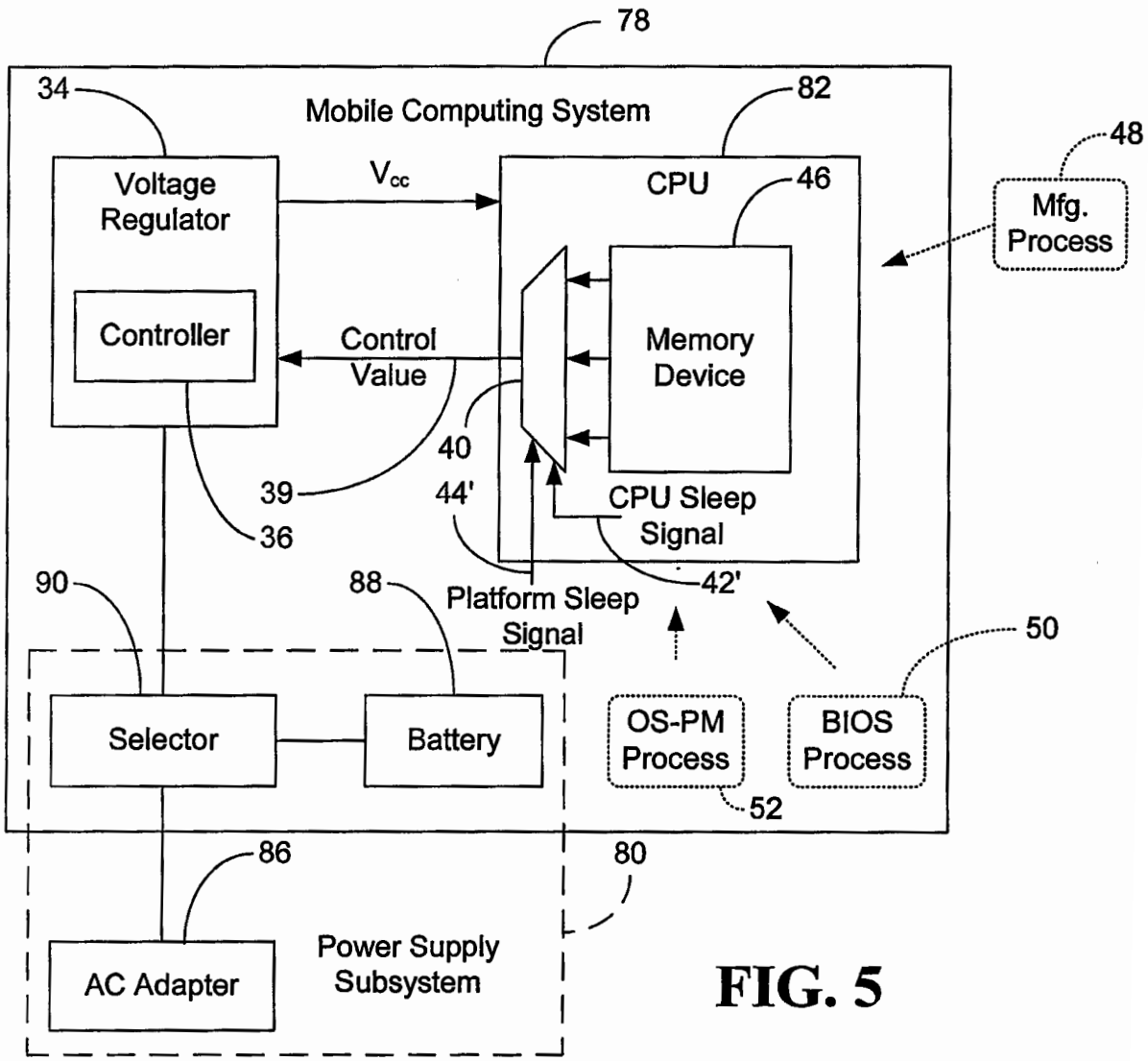

78
34
Mobile Computing System
82
48
Voltage Regulator
V_{cc}
CPU
46
Mfg. Process
Controller
Control Value
Memory Device
40
39
44'
CPU Sleep Signal
36
42'
90
88
Platform Sleep Signal
50
Selector
Battery
OS-PM Process
BIOS Process
52
86
80
AC Adapter
Power Supply Subsystem

FIG. 5

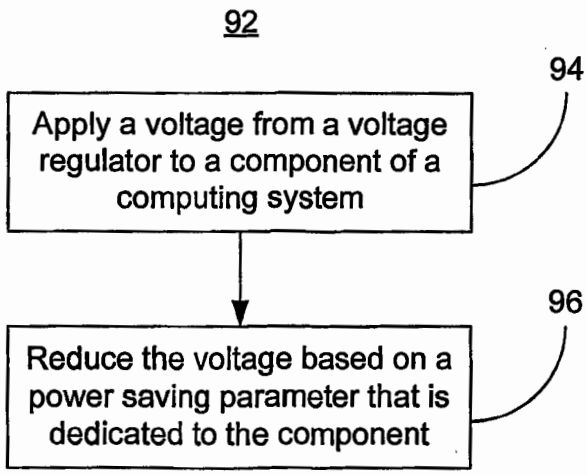

92
94
Apply a voltage from a voltage regulator to a component of a computing system
96
Reduce the voltage based on a power saving parameter that is dedicated to the component

FIG. 6

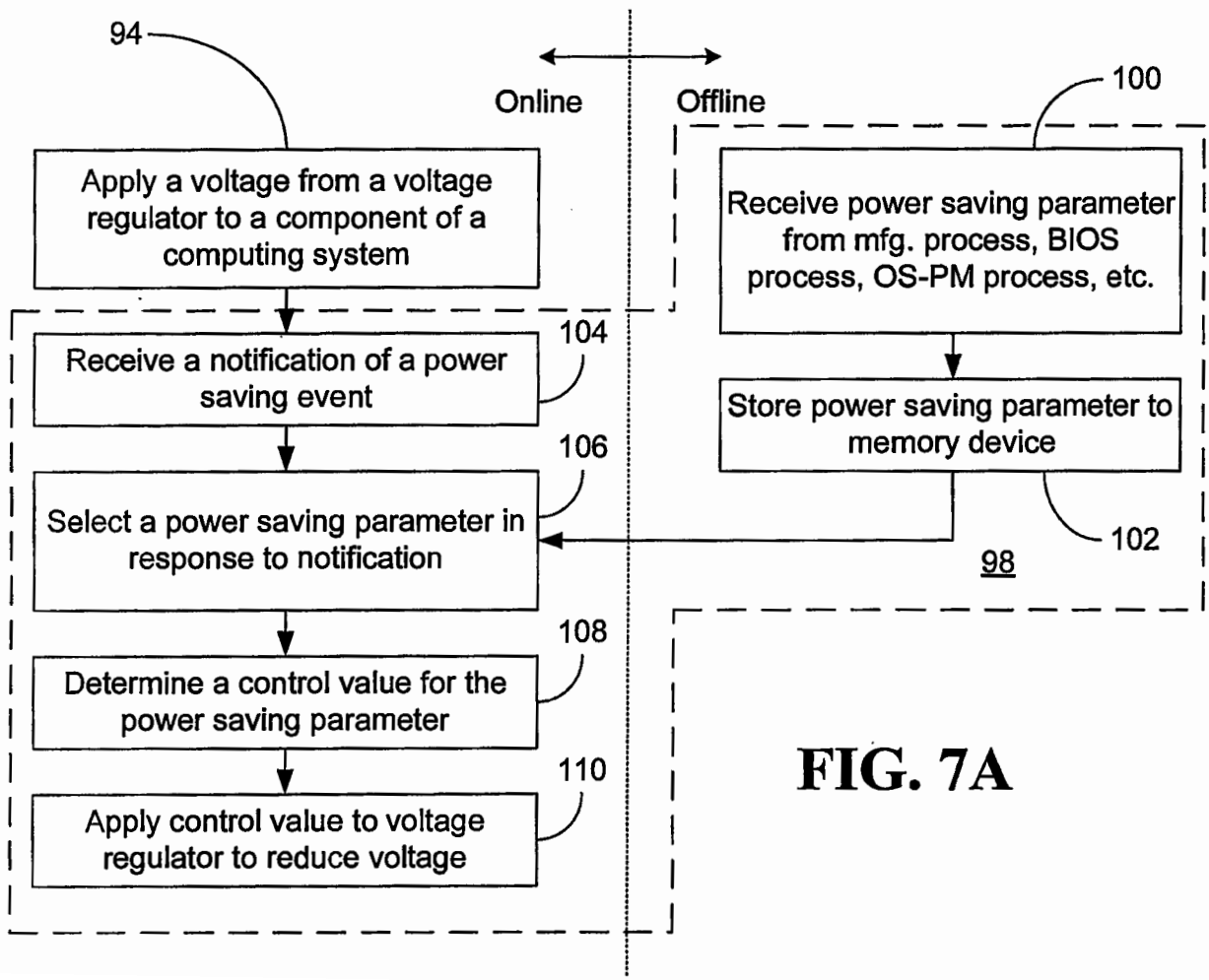

94
Online
Offline
100
Apply a voltage from a voltage regulator to a component of a computing system
Receive power saving parameter from mfg. process, BIOS process, OS-PM process, etc.
104
Receive a notification of a power saving event
Store power saving parameter to memory device
106
Select a power saving parameter in response to notification
102
98
108
Determine a control value for the power saving parameter
110
Apply control value to voltage regulator to reduce voltage

FIG. 7A

FIG. 7B

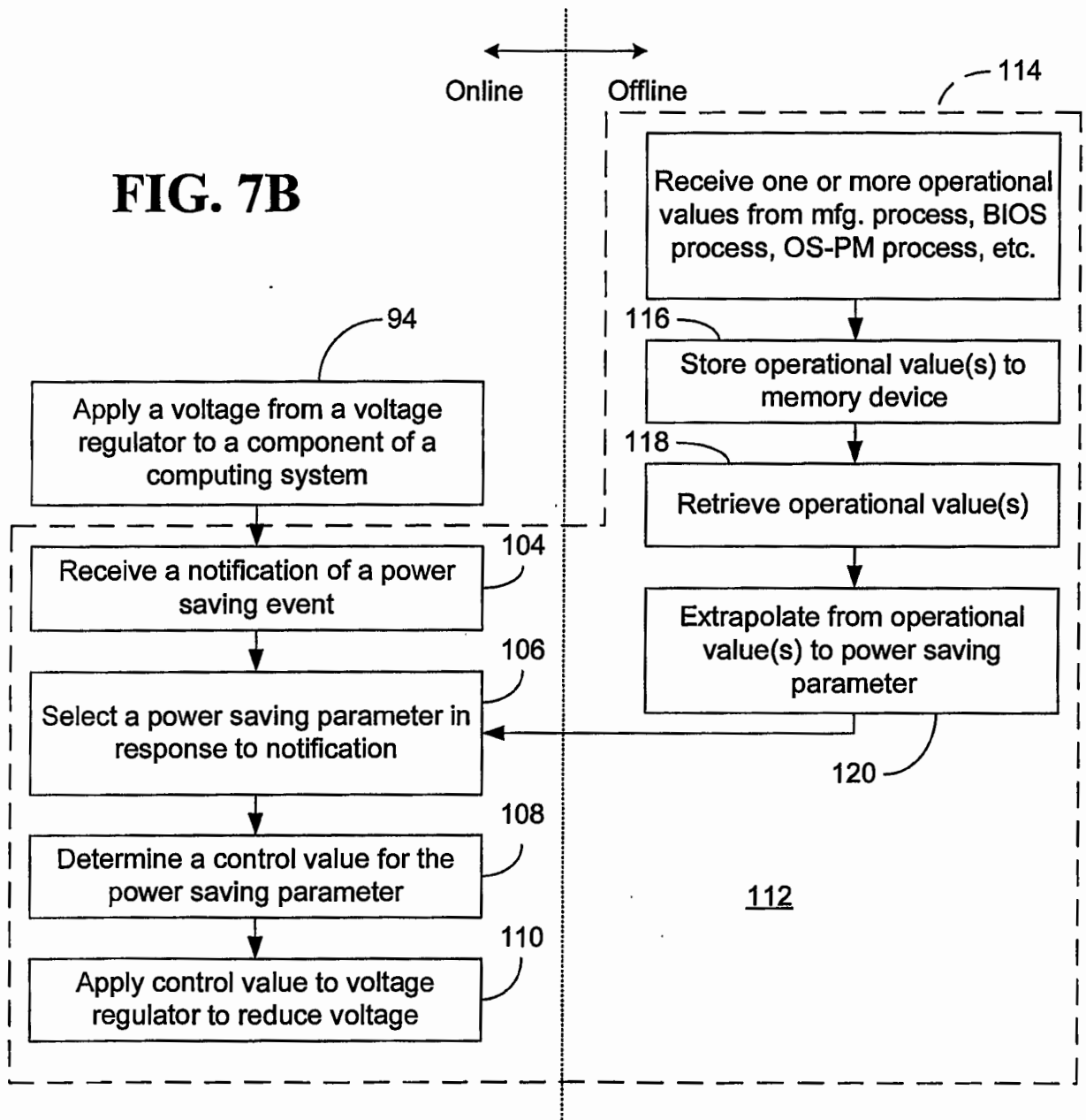
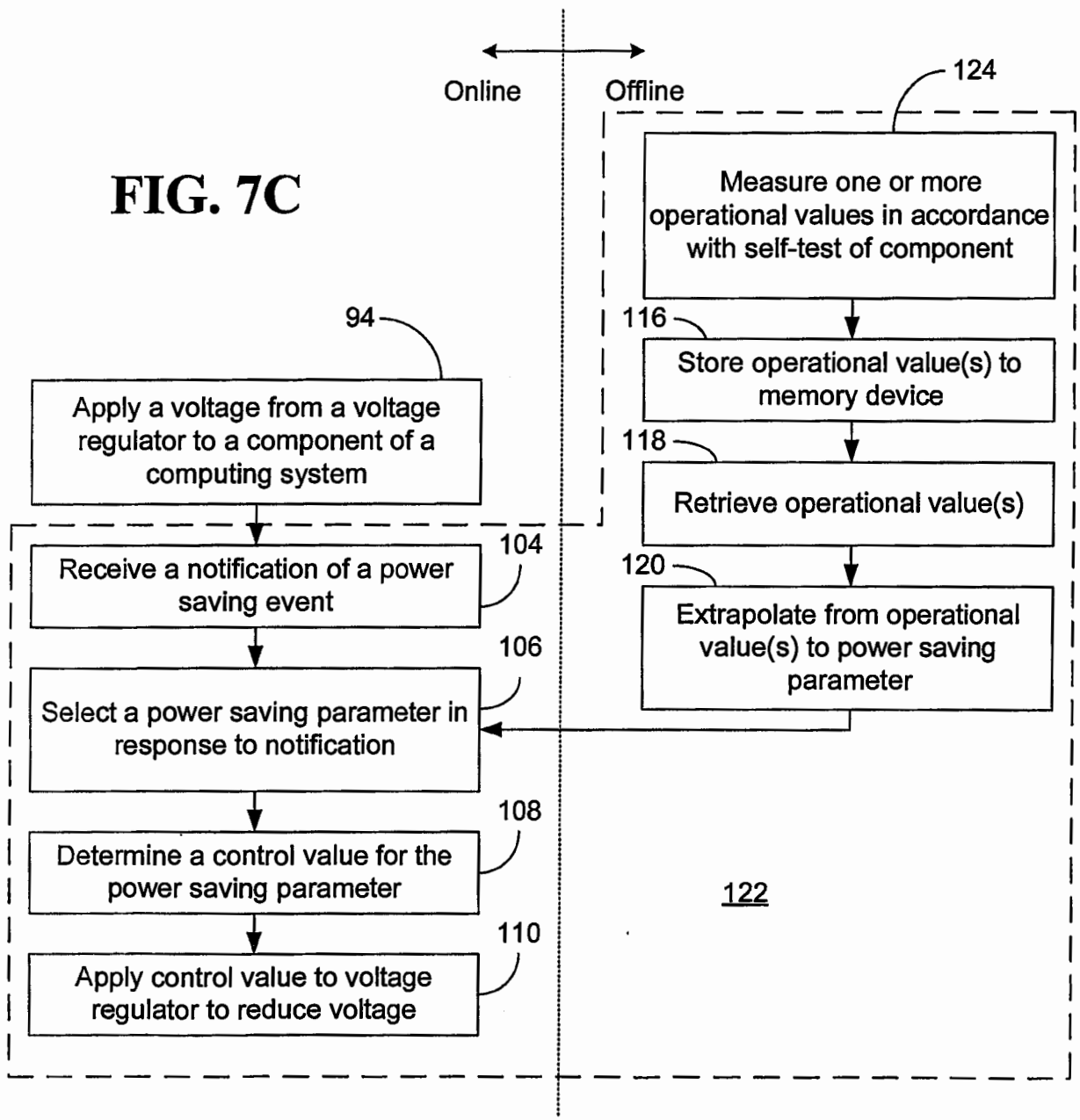

Online
Offline
114
Receive one or more operational values from mfg. process, BIOS process, OS-PM process, etc.
116
Store operational value(s) to memory device
118
Retrieve operational value(s)
Extrapolate from operational value(s) to power saving parameter
120
94
Apply a voltage from a voltage regulator to a component of a computing system
104
Receive a notification of a power saving event
106
Select a power saving parameter in response to notification
108
Determine a control value for the power saving parameter
110
Apply control value to voltage regulator to reduce voltage
112

FIG. 7C


Online
Offline
124
Measure one or more operational values in accordance with self-test of component
116
Store operational value(s) to memory device
118
Retrieve operational value(s)
120
Extrapolate from operational value(s) to power saving parameter
94
Apply a voltage from a voltage regulator to a component of a computing system
104
Receive a notification of a power saving event
106
Select a power saving parameter in response to notification
108
Determine a control value for the power saving parameter
110
Apply control value to voltage regulator to reduce voltage
122

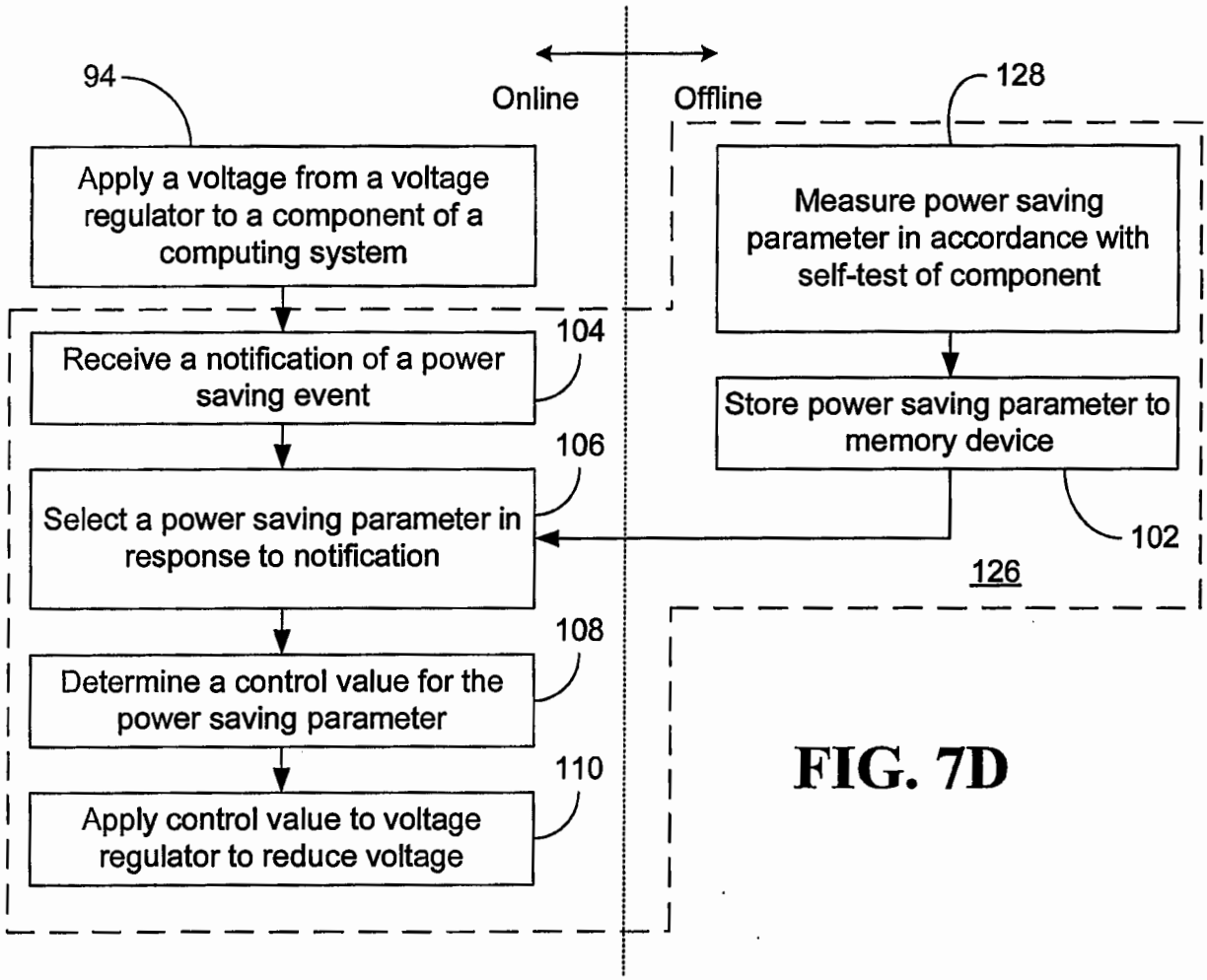

94
Online
Offline
128
Apply a voltage from a voltage regulator to a component of a computing system
Measure power saving parameter in accordance with self-test of component
104
Receive a notification of a power saving event
Store power saving parameter to memory device
106
Select a power saving parameter in response to notification
102
126
108
Determine a control value for the power saving parameter
110
Apply control value to voltage regulator to reduce voltage

FIG. 7D

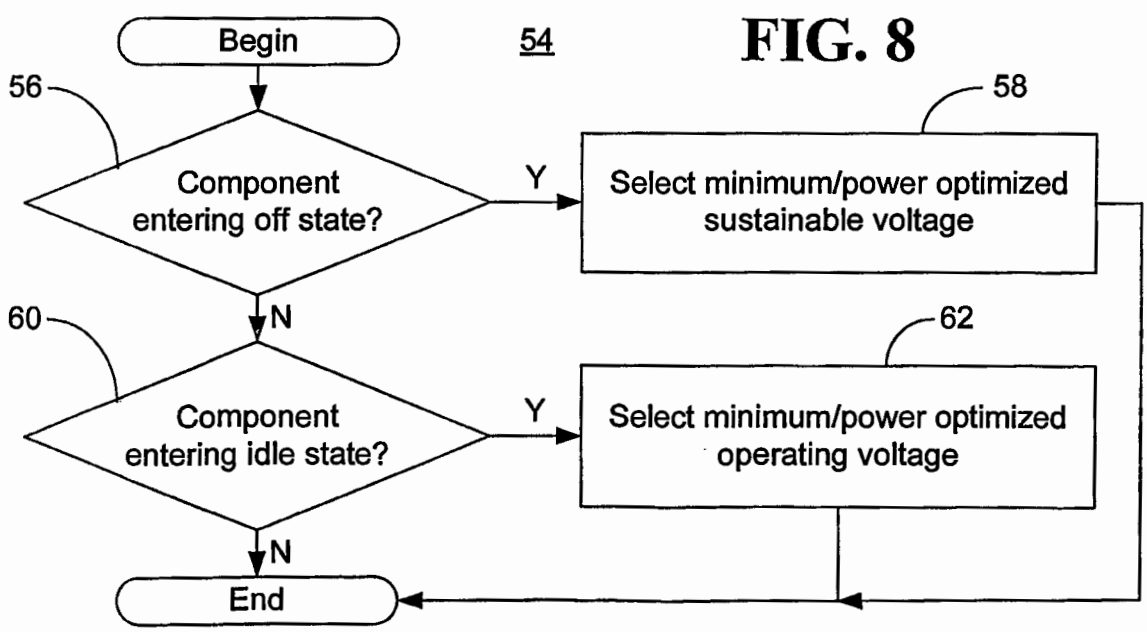

Begin
54
56
Component entering off state?
Y
58
Select minimum/power optimized sustainable voltage
N
60
Component entering idle state?
Y
62
Select minimum/power optimized operating voltage
N
End

FIG. 8