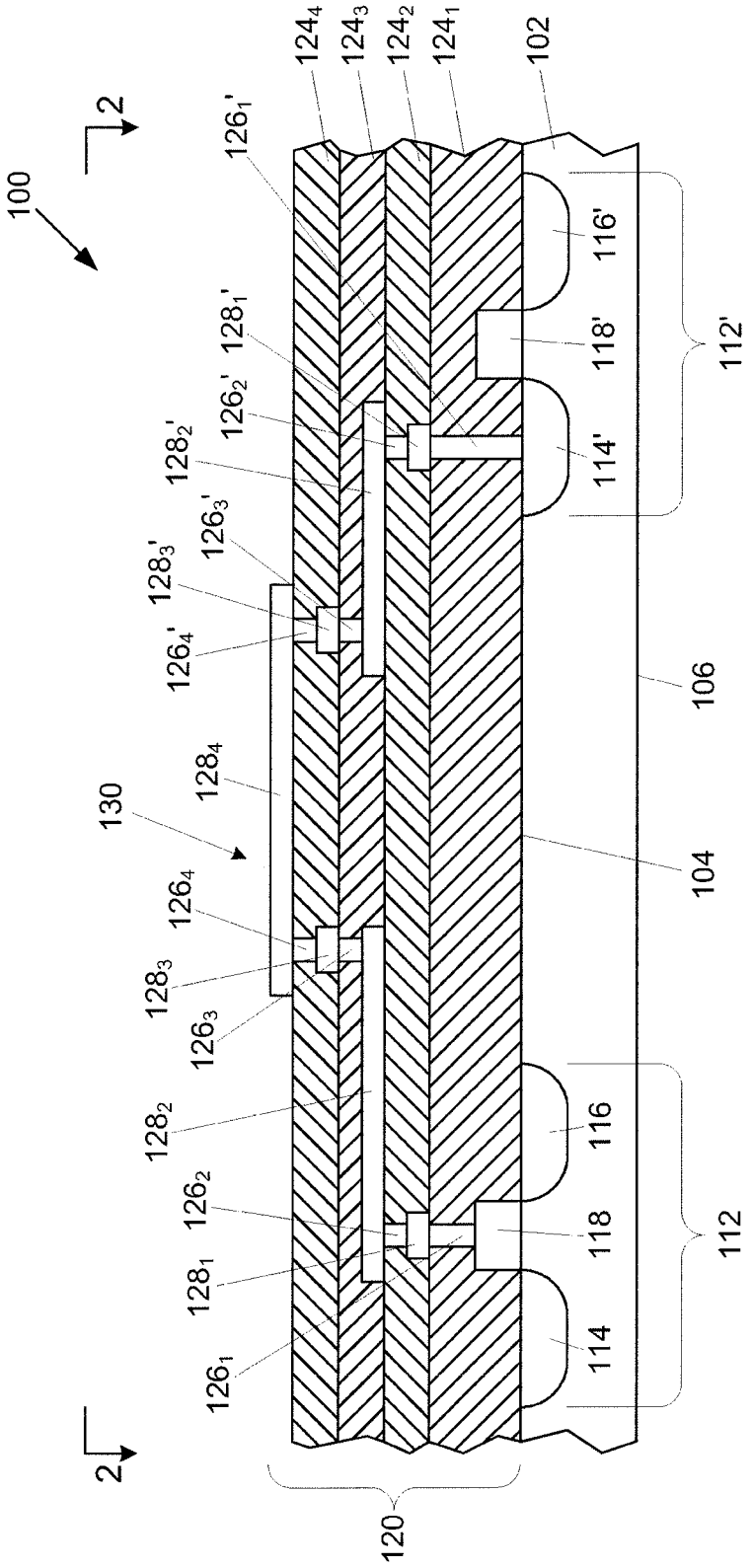


FIG. 1 (prior art)

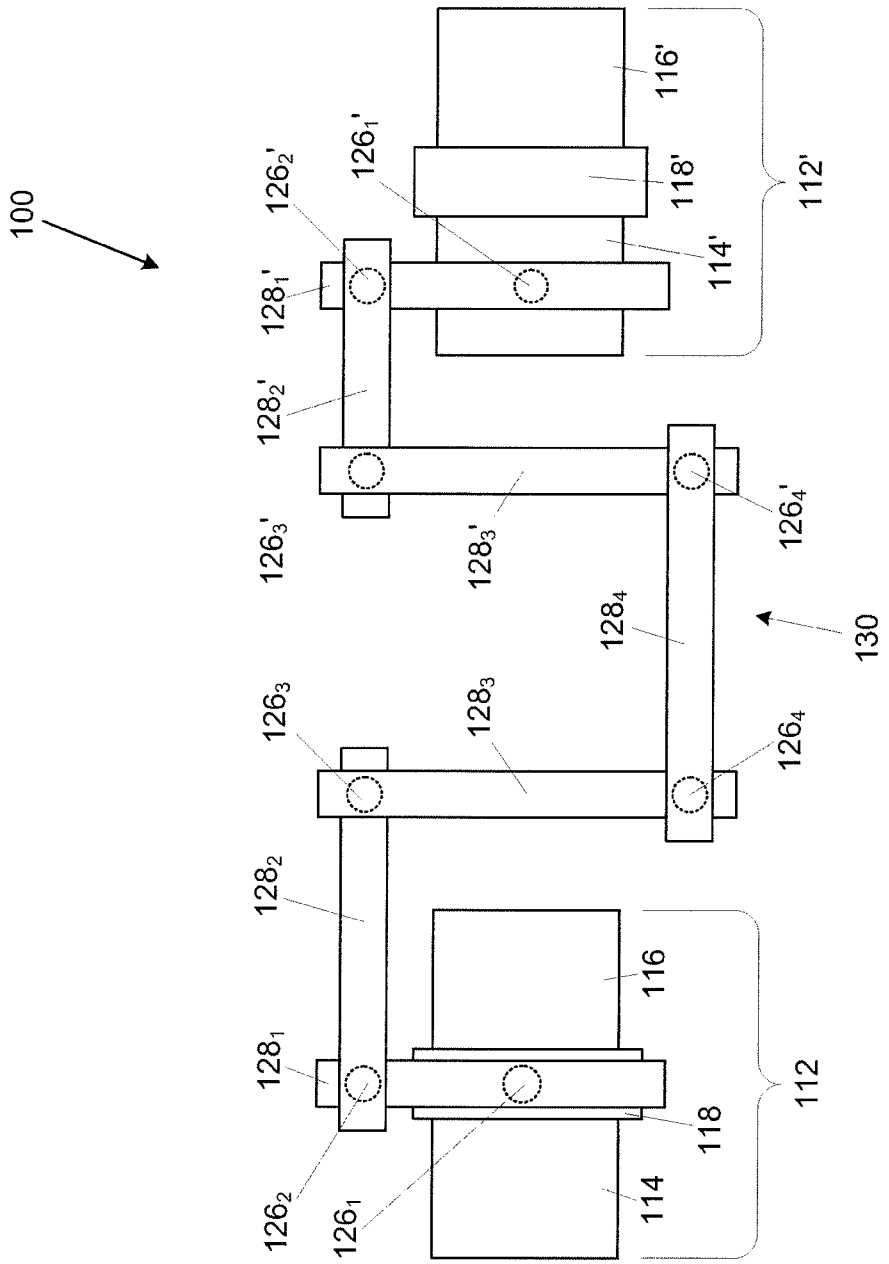


FIG. 2 (prior art)

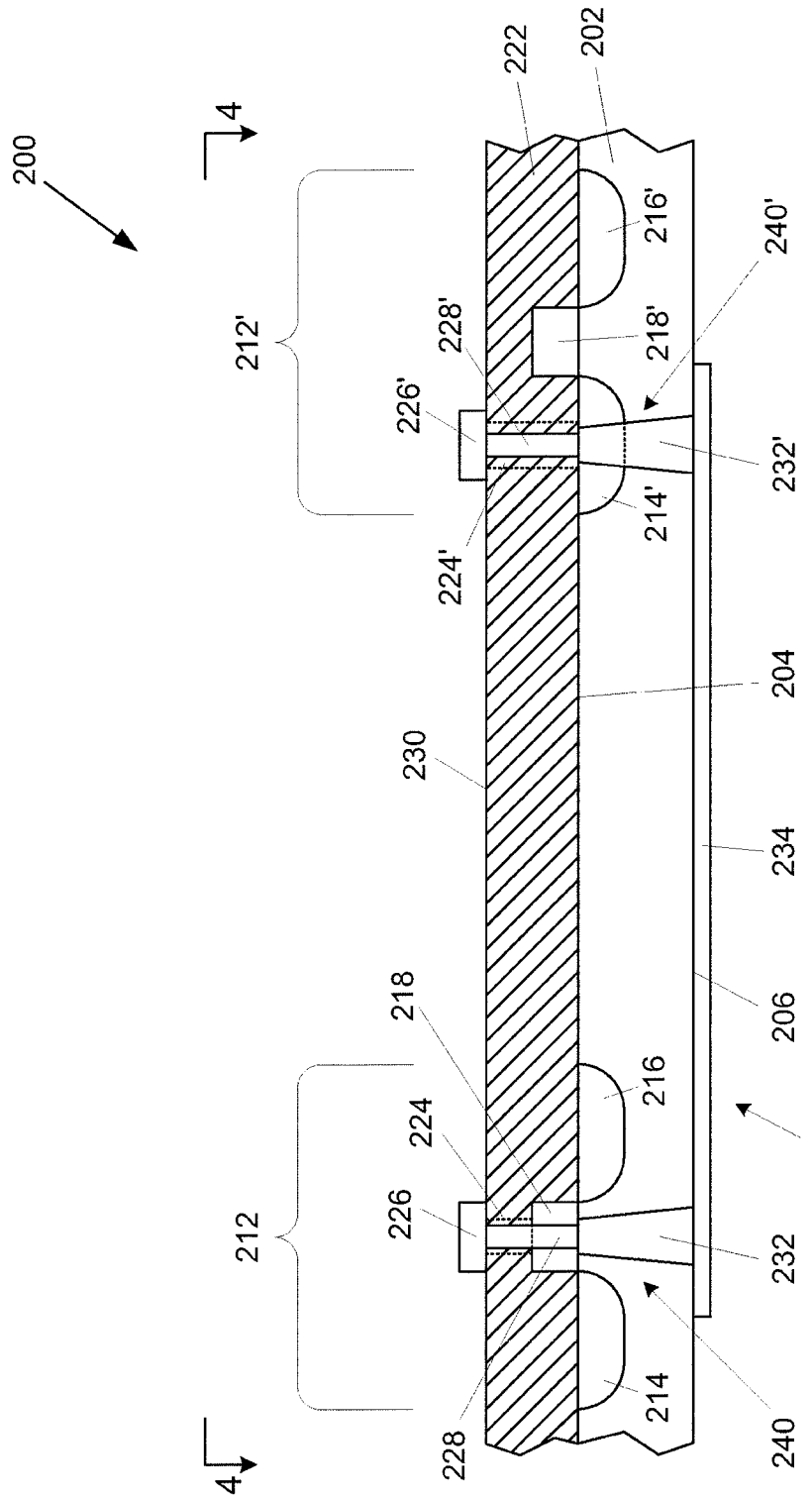

200
4
4
212'
212
222
202
216'
240'
228'
218'
226'
232'
214'
224'
204
230
234
218
206
216
224
250
226
232
214
228
240

FIG. 3

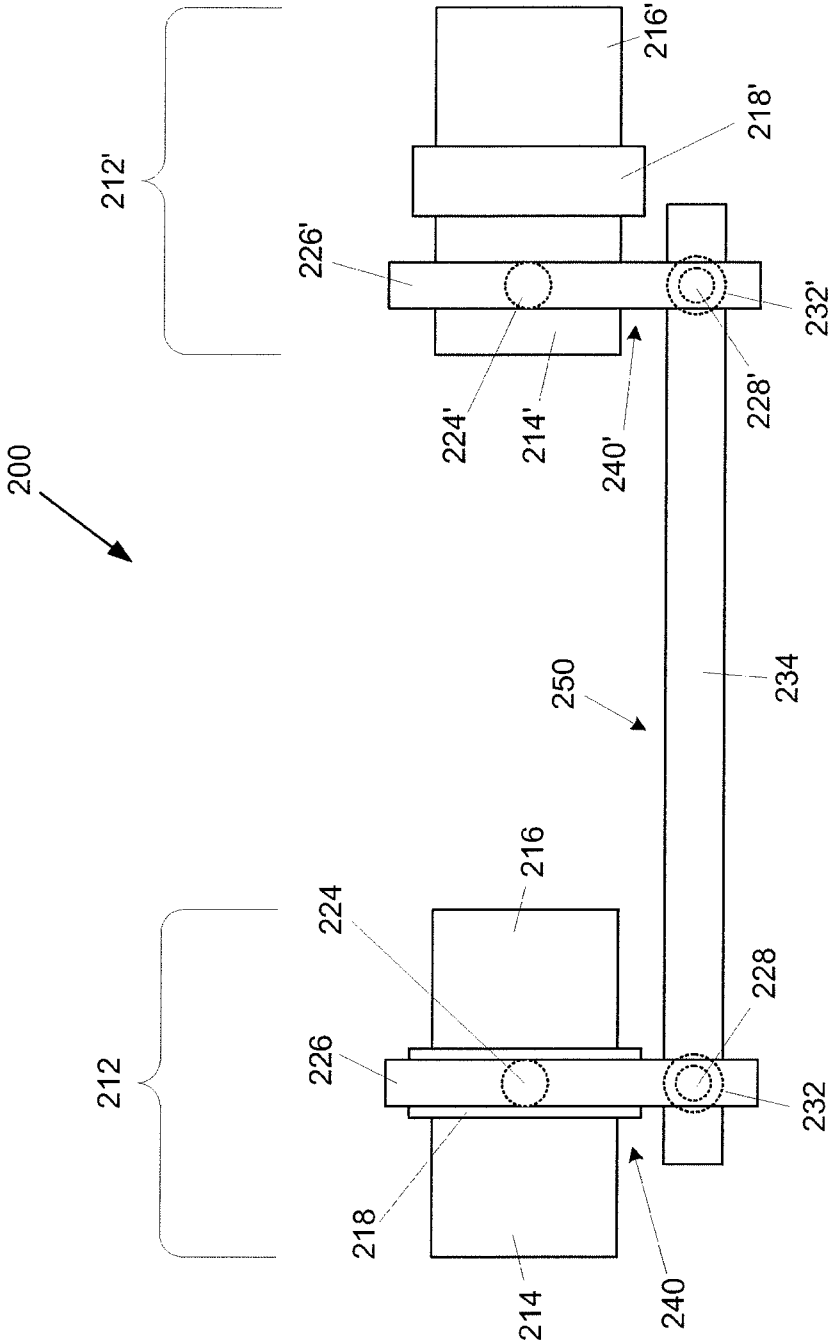

200
212'
216'
218'
226'
232'
224'
214'
240'
228'
250
234
212
216
224
228
226
232
218
214
240

FIG. 4

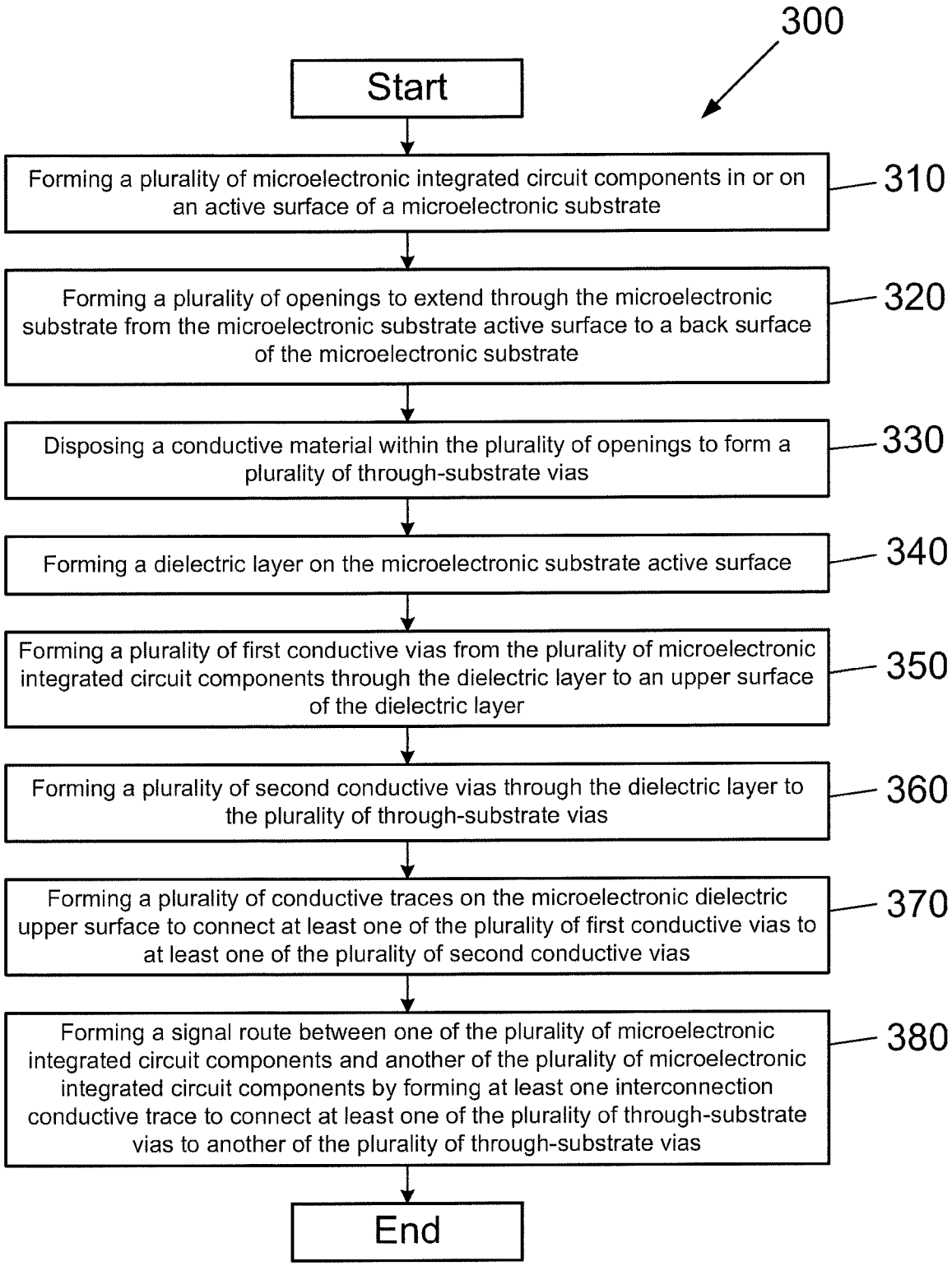

300
Start
Forming a plurality of microelectronic integrated circuit components in or on an active surface of a microelectronic substrate
310
Forming a plurality of openings to extend through the microelectronic substrate from the microelectronic substrate active surface to a back surface of the microelectronic substrate
320
Disposing a conductive material within the plurality of openings to form a plurality of through-substrate vias
330
Forming a dielectric layer on the microelectronic substrate active surface
340
Forming a plurality of first conductive vias from the plurality of microelectronic integrated circuit components through the dielectric layer to an upper surface of the dielectric layer
350
Forming a plurality of second conductive vias through the dielectric layer to the plurality of through-substrate vias
360
Forming a plurality of conductive traces on the microelectronic dielectric upper surface to connect at least one of the plurality of first conductive vias to at least one of the plurality of second conductive vias
370
Forming a signal route between one of the plurality of microelectronic integrated circuit components and another of the plurality of microelectronic integrated circuit components by forming at least one interconnection conductive trace to connect at least one of the plurality of through-substrate vias to another of the plurality of through-substrate vias
380
End

FIG. 5

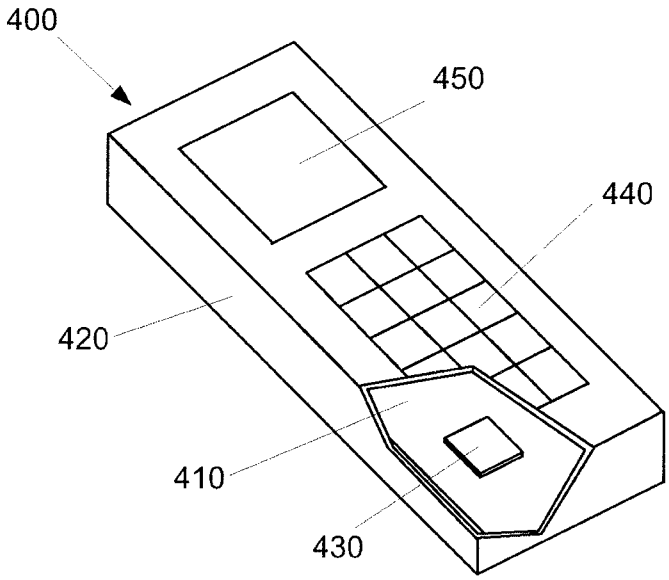


FIG. 6

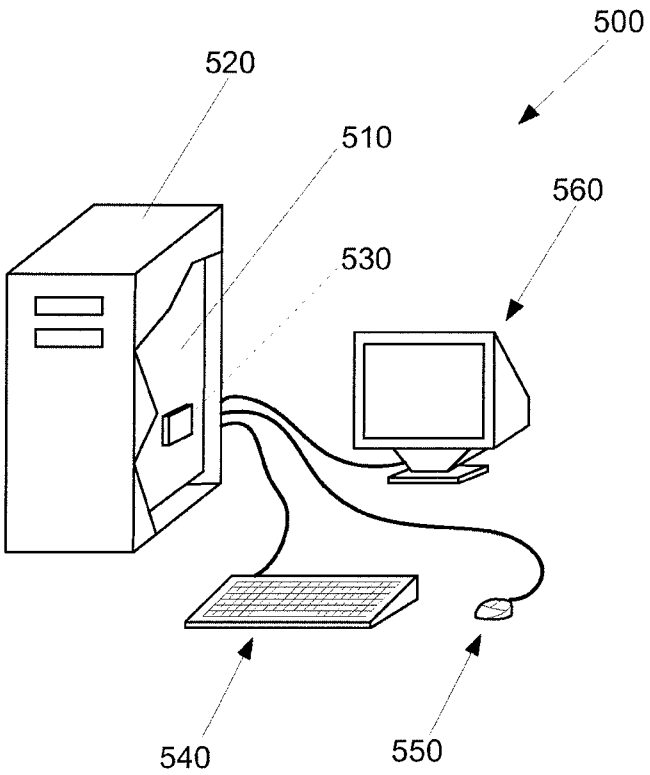


FIG. 7

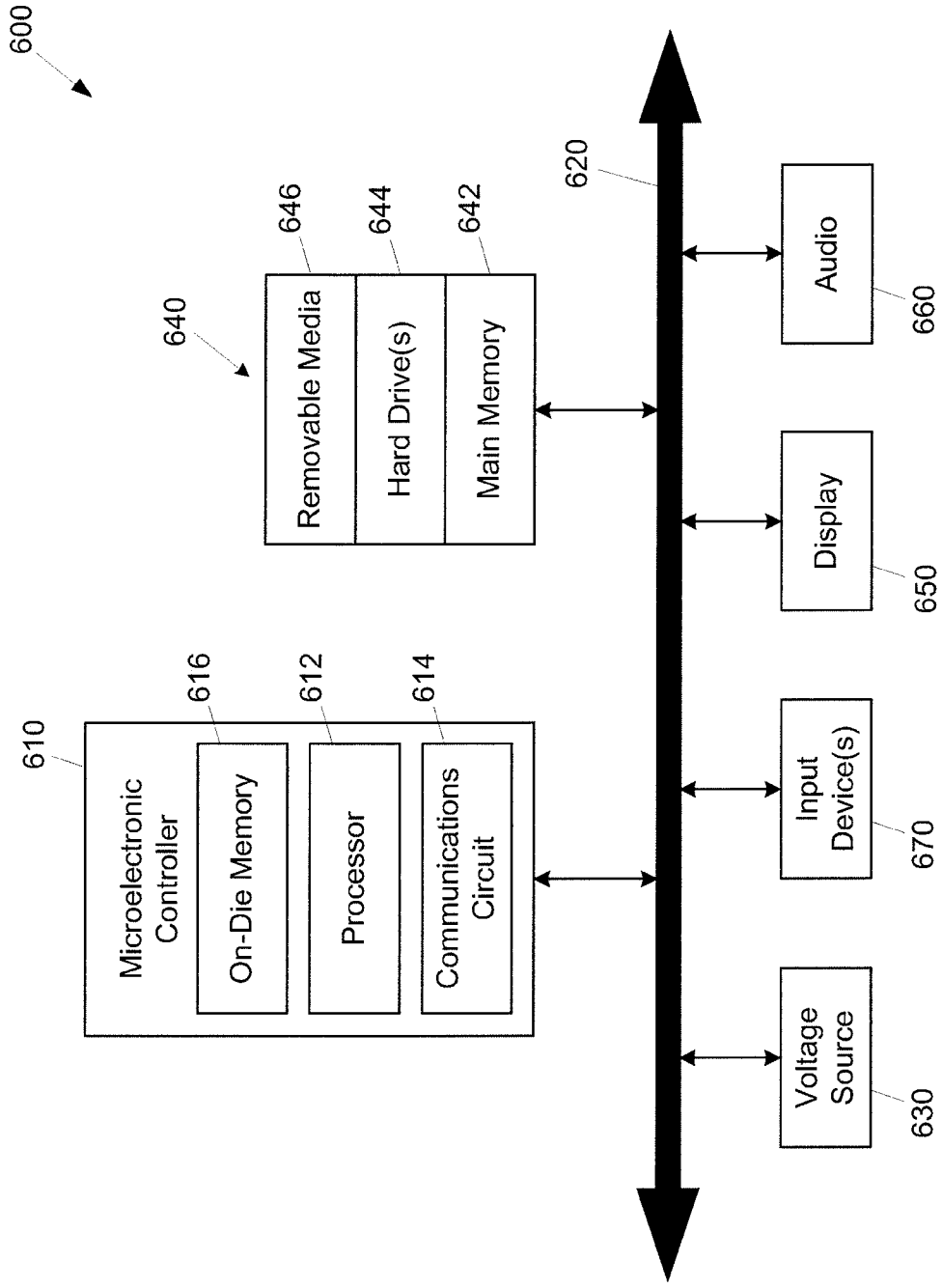

600
610
Microelectronic Controller
616
On-Die Memory
612
Processor
614
Communications Circuit
640
646
Removable Media
644
Hard Drive(s)
642
Main Memory
620
630
Voltage Source
670
Input Device(s)
650
Display
660
Audio

FIG. 8