FIG. 1

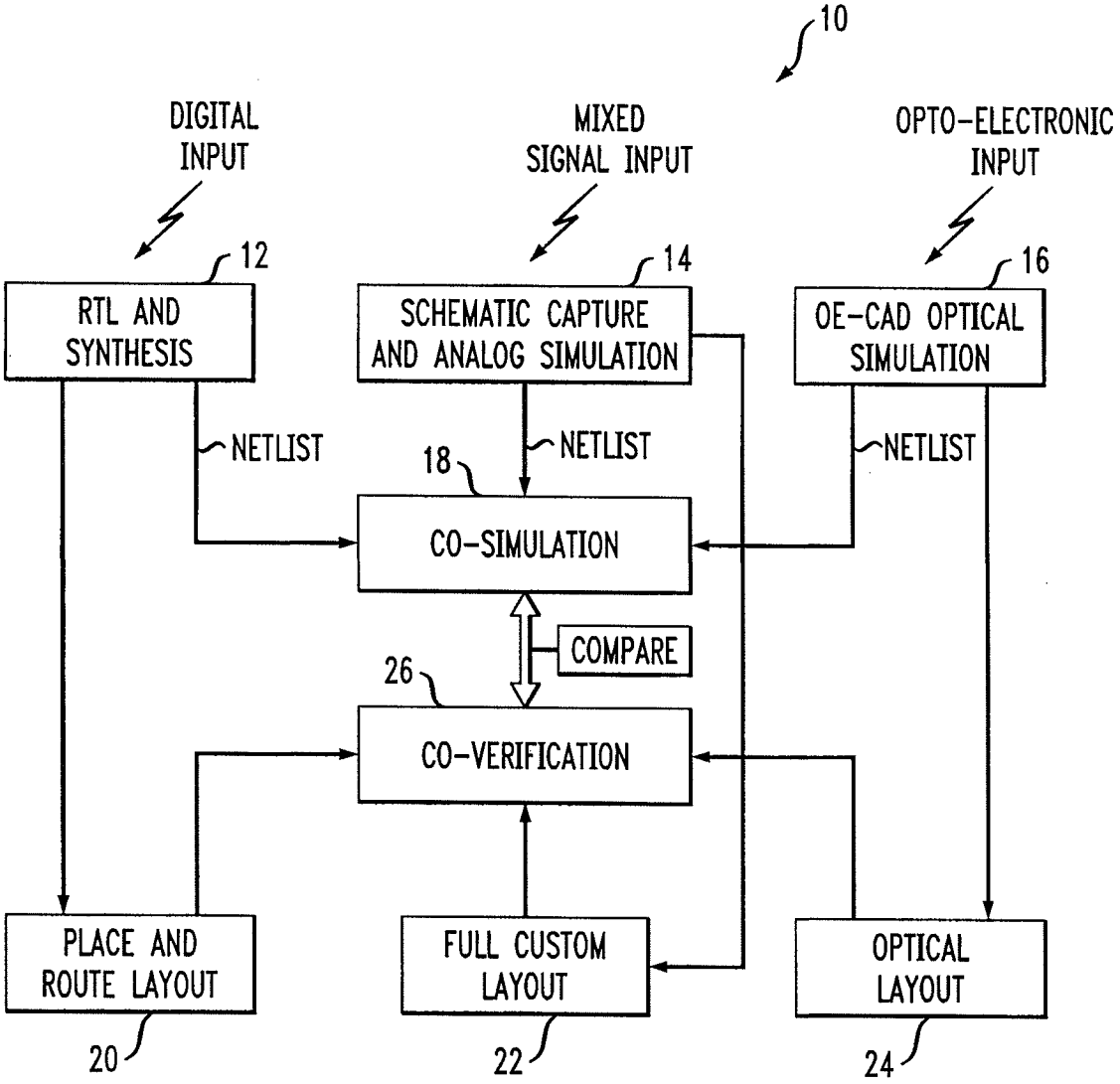

10
DIGITAL INPUT
MIXED SIGNAL INPUT
OPTO-ELECTRONIC INPUT
12
14
16
RTL AND SYNTHESIS
SCHEMATIC CAPTURE AND ANALOG SIMULATION
OE-CAD OPTICAL SIMULATION
NETLIST
NETLIST
NETLIST
18
CO-SIMULATION
COMPARE
26
CO-VERIFICATION
PLACE AND ROUTE LAYOUT
FULL CUSTOM LAYOUT
OPTICAL LAYOUT
20
22
24

FIG. 2

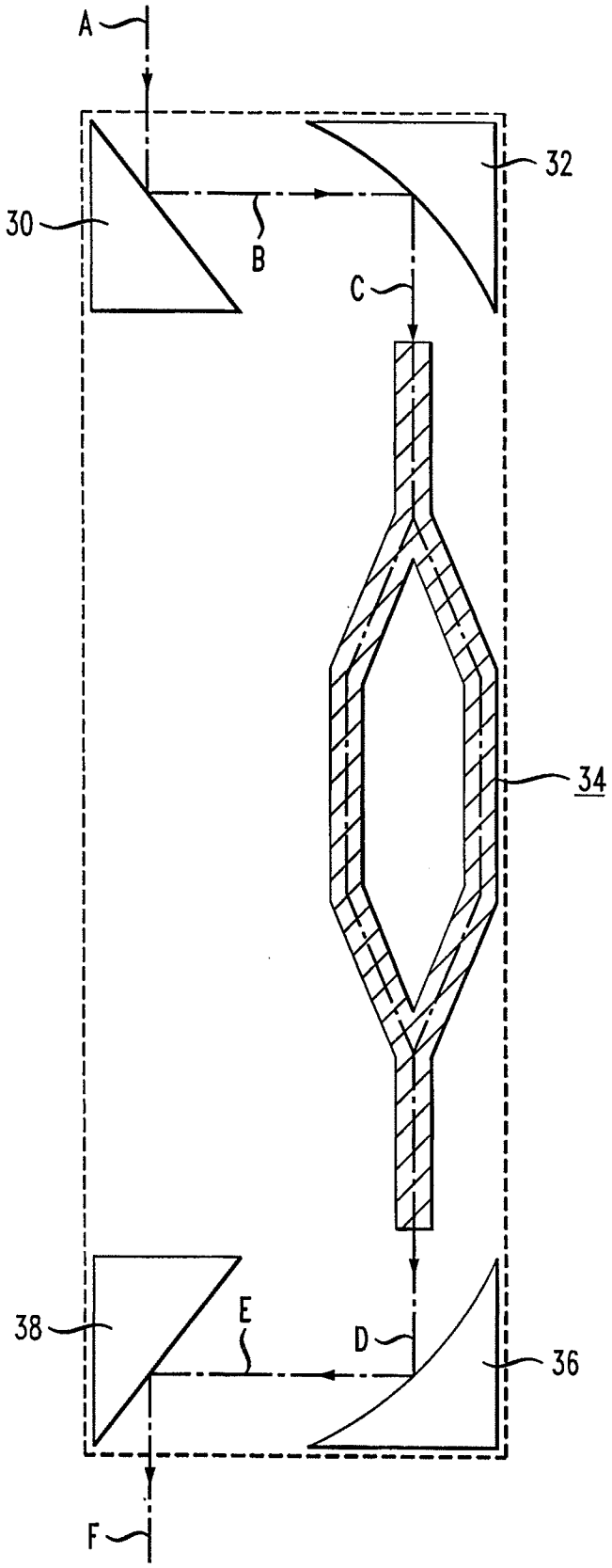


FIG. 3

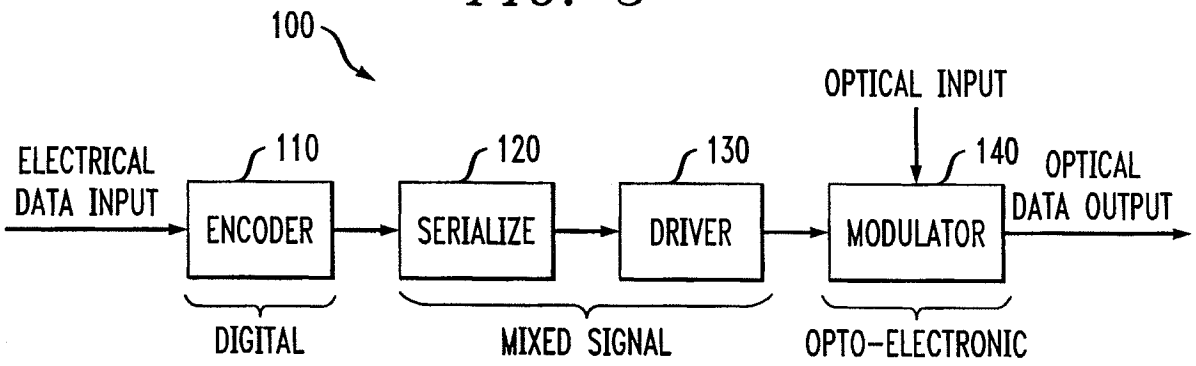
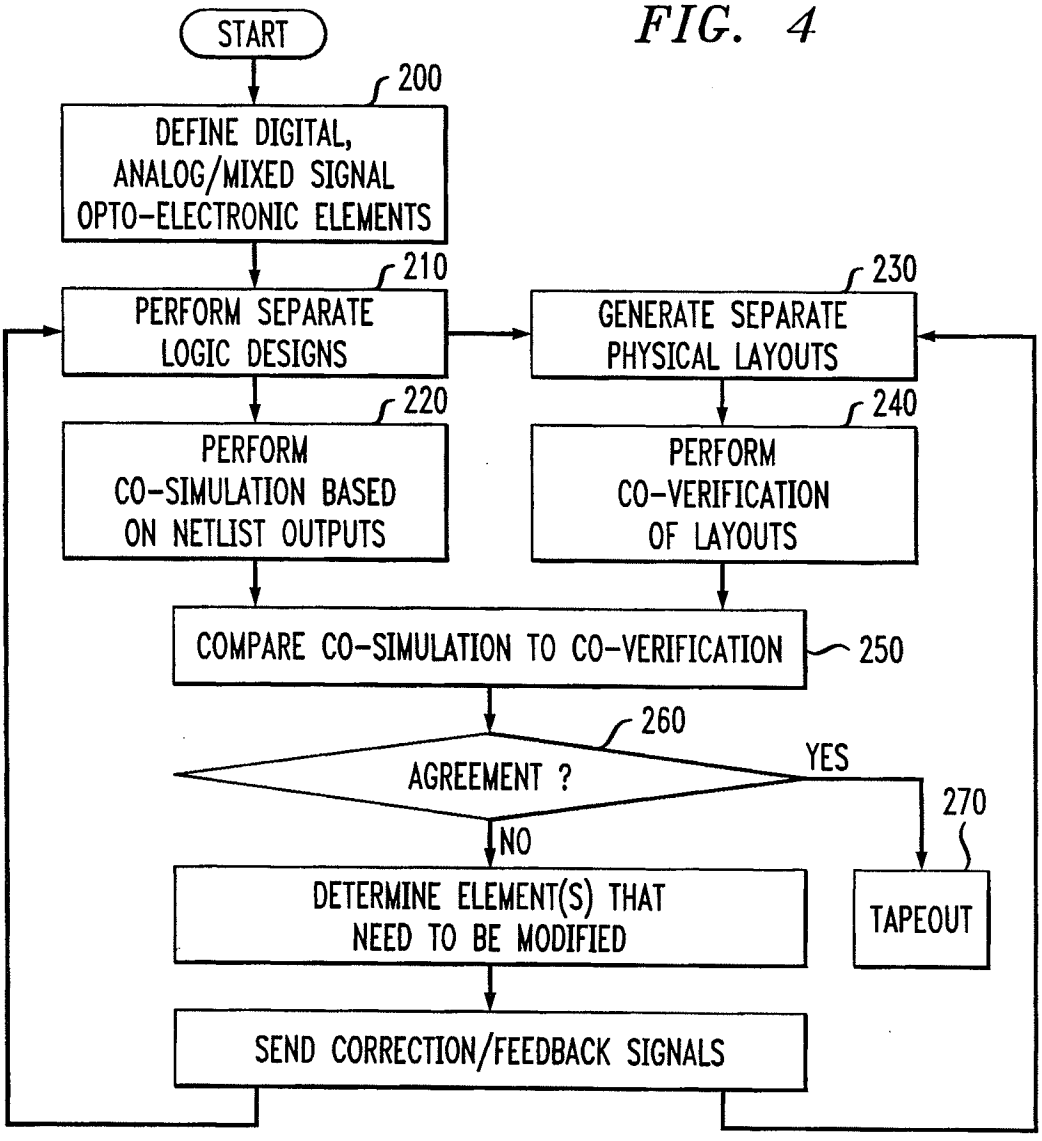

100
OPTICAL INPUT
ELECTRICAL DATA INPUT
110
120
130
140
OPTICAL DATA OUTPUT
ENCODER
SERIALIZE
DRIVER
MODULATOR
DIGITAL
MIXED SIGNAL
OPTO-ELECTRONIC

FIG. 4


START
200
DEFINE DIGITAL, ANALOG/MIXED SIGNAL OPTO-ELECTRONIC ELEMENTS
210
PERFORM SEPARATE LOGIC DESIGNS
230
GENERATE SEPARATE PHYSICAL LAYOUTS
220
PERFORM CO-SIMULATION BASED ON NETLIST OUTPUTS
240
PERFORM CO-VERIFICATION OF LAYOUTS
COMPARE CO-SIMULATION TO CO-VERIFICATION
250
260
AGREEMENT ?
YES
NO
270
TAPEOUT
DETERMINE ELEMENT(S) THAT NEED TO BE MODIFIED
SEND CORRECTION/FEEDBACK SIGNALS