

in a case where a reception state of the PA of at least one of the two optical amplifier units is a loss of signal LOS state, and a switch chip of the present optical amplifier unit detects a link interruption signal, activating an APR protection state of the present optical amplifier unit, wherein the APR protection state is to turn off output of the BA of the present optical amplifier unit. 101

in a case where a switch chip of at least one of the two optical amplifier units detects a link conduction signal, deactivating the APR protection state of the present optical amplifier unit, so as to make a state of the BA of the present optical amplifier unit be restored to a state before the APR protection state is activated. 102

FIG. 1

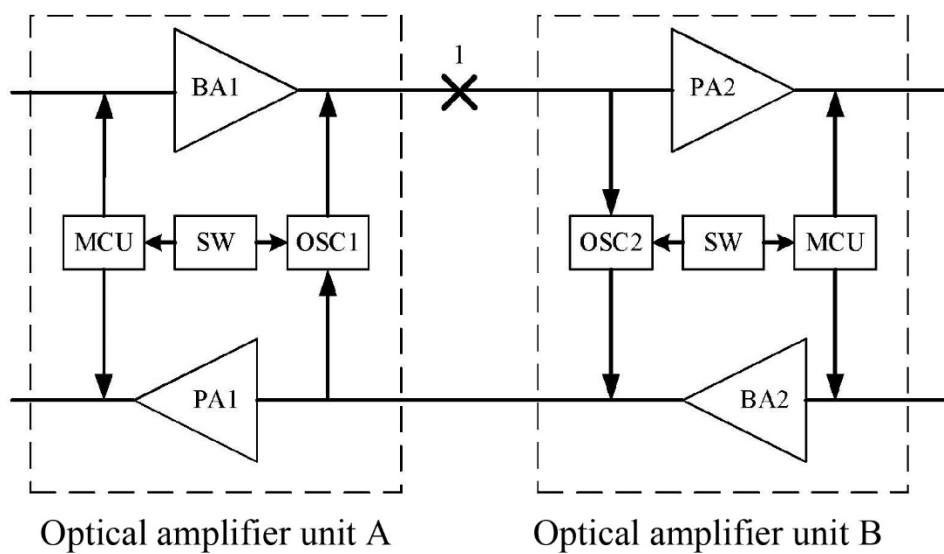


FIG. 2

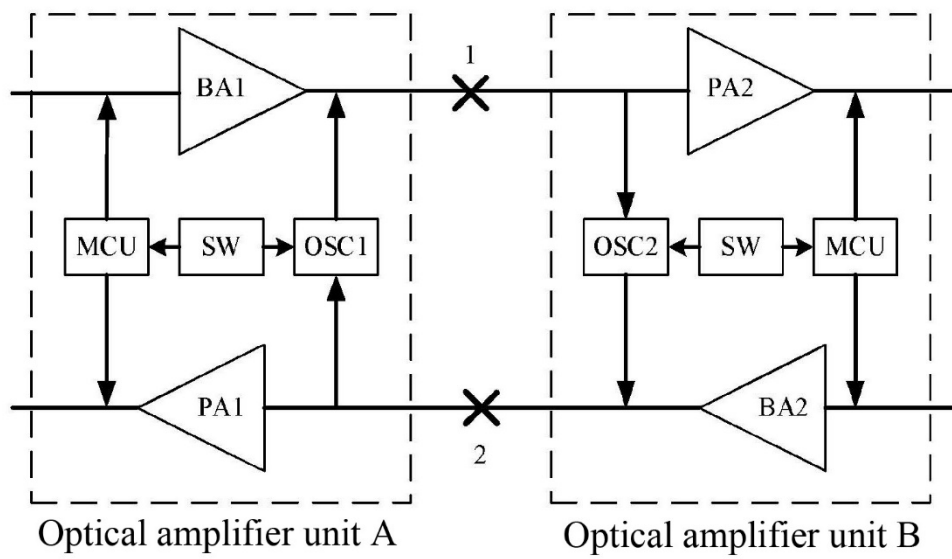


FIG. 3

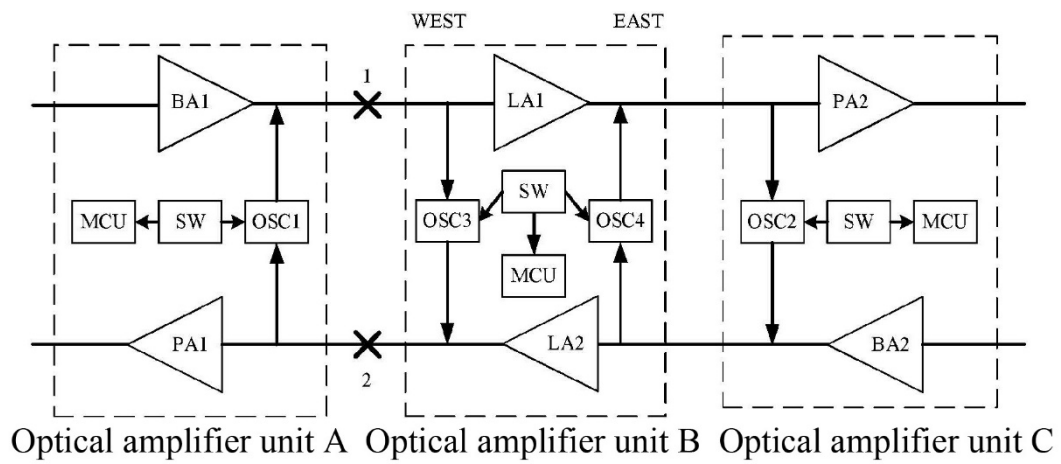


FIG. 4

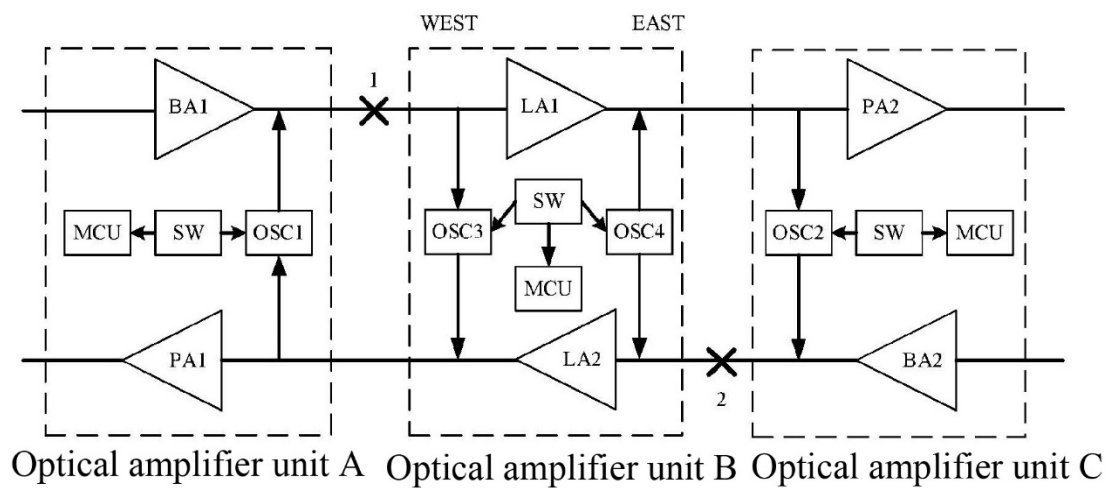


FIG. 5

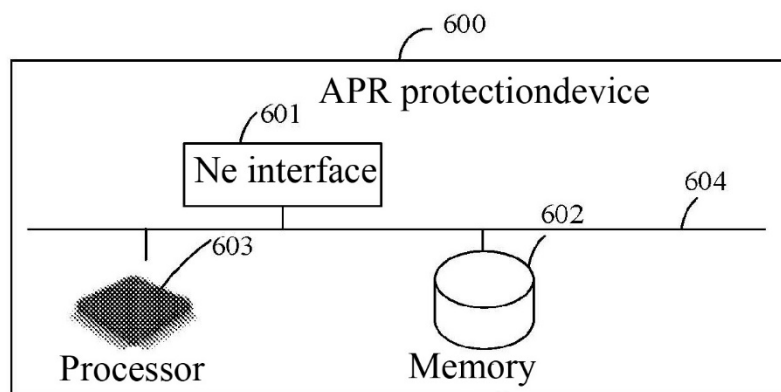


FIG. 6