

ABSTRACT OF THE DISCLOSURE

A frame phase synchronous system, which is accurate with a simple configuration for adjusting phase synchronization in a digital mobile communications system, is provided. A relay node measures a frame phase difference with respect to other relay nodes and obtains an optimum shift value as a first shift value, which is used for adjusting the phase synchronous in the relay node and for notifying to a switching node connected as a slave. The switching node measures a frame phase difference with respect to said host relay node and a frame phase difference with respect to a base station node as the slave, and obtains a second shift value by adding the first shift value to a shift value derived from the measured frame phase difference with respect to the host relay node for adjusting the phase synchronous in the switching node, and also obtains a third shift value by adding the second shift value to a shift value derived from the measured frame phase difference with respect to the base station node for notifying the third shift value to the base station node. The base station node adjusts the phase synchronous by the third shift value notified by the host switching node.

