

ABSTRACT**WIRELESS SYSTEM, AND ELEVATOR CONTROL SYSTEM AND SUBSTATION
MONITORING SYSTEM INCLUDING SAME**

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A wireless system is provided that is capable of selectively using, and communicating through, wireless propagation paths formed between radio devices in an over-the-horizon communication environment, to contribute to maintaining and improving communication quality. Also an elevator control system and a substation monitoring system both having this wireless system are provided. The wireless system includes a transmitter 101 having: two spatially orthogonal antennas 21, 22; and a transmission circuit that transmits a signal having an information signal spread with one code and then superimposed on a circularly polarized wave, in which a polarized wave rotates with time, along with a signal having the same information signal as the information signal spread with two different codes and then superimposed on statically polarized waves which are orthogonal to each other, and a receiver 201 having: at least one antenna; and a reception circuit that takes a difference between the sum of two operation results obtained by despreading with two different codes a received signal transmitted through statically polarized waves, and an operation result obtained by despreading with one code a received signal transmitted through a circularly polarized wave, wherein the transmitter and the receiver communicate with each other to transmit and receive the information signal.

Fig. 1