

Abstract

A purpose of the invention is to obtain a train car-to-car communication network capable of continuous communication processing without disruption of communication processing when compositions in different composition directions are coupled.

A train car-to-car communication device includes: a terminal; an intra-composition transmission line connected to the terminal within the same composition for transmitting the information; a composition-to-composition communication relay unit connected to the intra-composition transmission line for receiving first information as the information from the terminal within the composition and transmitting the first information to the other adjacent composition, and receiving second information as the information from the other adjacent composition and transmitting the second information to the terminal within the composition of interest; and a composition-to-composition transmission line for connecting the composition-to-composition communication relay units of the adjacent compositions and transmitting the information, and the composition-to-composition communication relay unit has composition direction determining means for determining a difference between composition directions of the composition as a transmission source of the received information and the composition to which the composition-to-composition

communication relay unit of interest belongs, and direction-dependent information rewriting means for rewriting to invert direction-dependent information contained in the received information if the composition direction determining means determines that the composition directions are different.