

RADIO COMMUNICATIONS APPARATUS WITH A COMBINING DIVERSITY

ABSTRACT OF THE DISCLOSURE

The present invention is directed to a radio communications apparatus with combining diversity in which received radio signals are weighted appropriately to reduce an error in demodulation and improve in communication quality. In the signal combining diversity radio communications apparatus, the digital reception signals of an intermediate frequency, output from the reception circuit, are demodulated by demodulation circuits into digital demodulation signals of the baseband. The digital demodulation signals are input to the multiplication circuits. The multiplication circuits multiply the digital demodulation signals by the weight coefficients, which are generated by weight coefficient generation circuits and corresponding to the digital demodulation signals, based on C/N ratio detection signals, in order to weight the digital demodulation signals. The weighted demodulation signals are added together by a digital addition circuit. Consequently, the received signals can be weighted appropriately to thereby improve in communication quality.

Fig. 2