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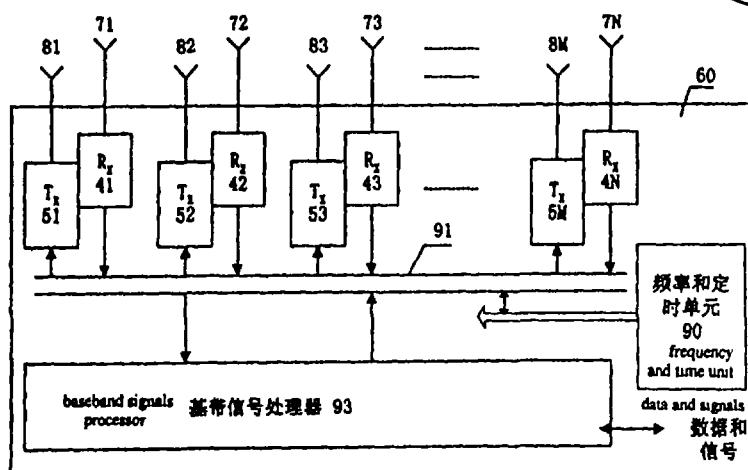
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(54) Title: APPARATUS AND METHOD USING SMART ANTENNA IN FDD WIRELESS COMMUNICATION SYSTEM

(54) 发明名称: 在频分双工无线通信系统中使用智能天线的方法与装置

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(57) Abstract: Present invention relates to an apparatus and a method using smart antenna in frequency division duplex code division multiple access communication system, for resolving a limitation of smart antenna use due to asymmetric propagation of uplink electric wave and downlink electric wave. Wireless base station has a smart antenna array for transmitting and receiving, a relevant RF transmitter and receiver, and a common baseband signals processor. The method of this invention is to determine main link direction by using a estimates of signal DOA (direction of arrival) obtained from a received signals; in downlink beamforming manner, synthesize a expectantly obtained transmitting beam shape based on the main direction. The system can obtain an advantage of smart antenna, thereby improving coverage of cell, increasing capacity and reducing cost

WO 02/01776 A1