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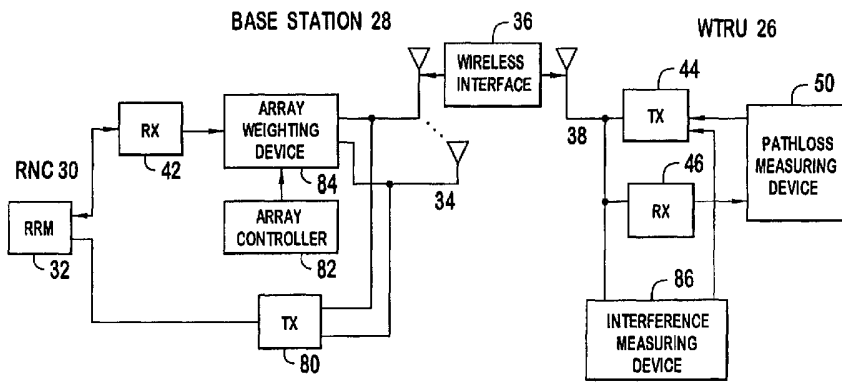
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(54) Title: RESOURCE ALLOCATION TO USERS IN SLOTTED CODE DIVISION MULTIPLE ACCESS SYSTEMS USING BEAMS



(57) Abstract: The invention includes several embodiments for slot assignment in CDM communication systems. Some of the embodiments relate to fixed beams (1-M) includes : assigning slots (TS1-TSN) by first detecting a beam having the best received quality and selecting the best slot from that beam; determining the best slot or slots in a number of beams (1-M) and determines the overall best beam/slot combination; and using a modified interference factor. One embodiment for the uplink using adaptive arrays (34) using a spatial analysis stage followed by a transmission power level estimation stage. An overall interference level associated with each slot (TS1-TSN) is determined and a slot having best overall quality is determined. Another embodiment for the downlink uses the spatial analysis and slot assignment of the uplink for the downlink. Another embodiment for the downlink uses a spatial and transmission power level estimation stages. For adaptive arrays (34), the slot assignment can be determined whether the path loss for each user is estimated or not and whether signals from each user are received or not.

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INTERNATIONAL SEARCH REPORT

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	US 6,453,176 B1 (LOPES et al) 17 September 2002 (17.09.2002), col.9	1-9
P, A	US 6,408,169 B1 (PALLONEN) 18 June 2002 (18.06.2002)	1-26
A	US 2001/0004604 A1 (TOSHIMITSU et al) 21 June 2001 (21.06.2001)	1-26
P, A	US 2002/0115474 A1 (YOSHINO et al) 22 August 2002 (22.08.2002)	15-26
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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