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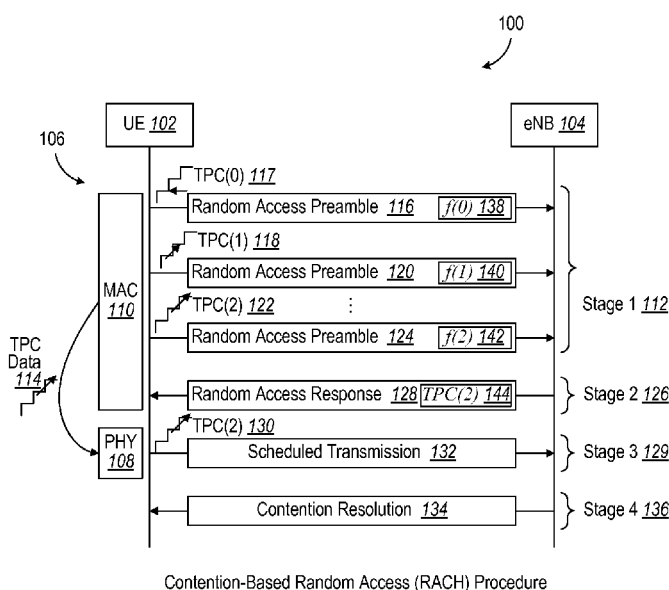
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR POWER CONTROL OF FIRST DATA TRANSMISSION IN RANDOM ACCESS PROCEDURE OF FDMA COMMUNICATION SYSTEM



Contention-Based Random Access (RACH) Procedure

FIG. 1

(57) Abstract: Transmit power is controlled for a first uplink data transmission on Physical Uplink Shared Channel (PUSCH) during random access channel (RACH) procedure. Power control adjustment for the first PUSCH transmission is performed relative to the power spectral density used for successful PRACH transmission as adjusted for bandwidth difference, etc. The uplink Physical random access channel (PRACH) information that is transmitted by the user equipment (UE) during registrations or base station originated calls. A PRACH is composed of a number of preambles and a message portion. The preambles are a series of radio frequency power "steps" that increase in power according to the power step setting until the maximum number of preambles is reached or the base station acknowledges. Once the UE receives a positive indication, it transmits the message portion of the PRACH which consists of message data and control data with independent power gain control.



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