signals, from mobile stations **15** as compared with traditional sector antennas or antennas that use beam selection techniques only after a call has been established.

[0185] FIG. **13** illustrates a method of fast decision beam selection in accordance with an embodiment of the present invention. The method starts at step **700**. In one embodiment, the method starts before a particular time slot. In a particular embodiment, the method starts before a random access channel (RACH) time slot. At step **702**, processing module **62** determines that fast decision beam selection module **408** will be used to determine receiving beam selections **126** during the particular time slot. At step **704**, central processing unit **118** determines a gain setting **490** for each beam receiver **112** based on one or more input parameters, as discussed in greater detail below with reference to FIGS. **14** and **15**. At step **706**, gain settings **490** and an AGC lock command **496** are communicated to receiver unit **108** from central processing unit **118** and processing module **62**, respectively. At step **708**, the gain of each beam receiver **112** is set according to gain settings **490** received from processing module **62** and AGC device **482** is turned off, locking the gain of each beam receiver **112**.

[0186] At step **710**, the particular time slot begins. At step **712**, uplink beams **130** are received from antenna unit **18** by beam receivers **112**. At step **714**, the relevant power **439** of each uplink beam **130** is determined by relevant power module **403** and communicated to buffer **480**. At step **716**, buffer **480** calculates the average power **484** of each uplink beam **130** based on a particular number of samples of the relevant power **439** of each uplink beam **130**, including the sample determined at step **714** (in other words, the current sample). Step **716** may be repeated after every one or more samples of relevant power **439** are determined at step **714**.

[0187] At step **718**, the strongest uplink beam **130** is determined by comparing the average power **439** of each uplink beam **130**. At step **720**, it is determined whether the fast decision method has timed out. In particular, the fast decision method may time out after a particular point in the time slot is reached. In one embodiment in a GSM environment, the fast decision method times out after the 61st bit from the beginning of the time slot is reached. If it is determined at step **720** that the fast decision method has timed out, the method proceeds to step **722**. At step **722**, processing module **62** communicates an AGC unlock command **497** to receiving unit **108** which turns AGC device **482** back on. At step **724**, AGC device **482** controls or adjusts, if necessary, the gain of each beam receiver **112** based on the input power of uplink beams **130** received by each beam receiver **112**. At step **726**, the magnitude of the gain of each beam receiver **112** at the end of the time slot, as adjusted by AGC device **482**, is communicated to central processing unit **118** for use in determining gain settings **90** for subsequent time slots, as discussed below with reference to FIGS. **14** and **15**. At step **727**, the method ends.

[0188] If it is determined at step **720** that the fast decision method has not timed out, the method proceeds to step **728**. At step **728**, it is determined whether the average power **439** of the strongest uplink beam **130** is greater than a defined signal power threshold, such as minimum threshold **432**. In one embodiment, this determination is made by fast decision algorithm **430**. If it is determined that the average power **439** of the strongest uplink beam **130** is greater than minimum threshold **432**, that uplink beam **130** is set as the fast decision beam selection **440** at step **730**. If not, the method returns to step **716** to continue calculating and sampling the average power **439** of each uplink beam **130**.

[0189] At step **732**, fast decision algorithm **430** continues to update the average power **484** of each uplink beam **130** based on samples received from relevant power module **403**. At step **736**, the current strongest uplink beam **130** is determined based on the updated average power **484** of each uplink beam **130**. At step **738**, it is determined whether the average power **484** of the current strongest uplink beam **130** exceeds that of the uplink beam **130** currently selected as fast decision beam selection **440** by more than the improvement threshold **434**. In one embodiment, improvement threshold **434** is the same as minimum threshold **432**. In another embodiment, improvement threshold **434** is greater than minimum threshold **432**. In yet another embodiment, improvement threshold **434** is less than minimum threshold **432**. If it is determined at step **738** that the current strongest uplink beam **130** does exceed the currently selected fast decision beam selection **440** by more than the improvement threshold **434**, fast decision beam selection **440** is switched to the current strongest uplink beam **130** at step **740**, and the method proceeds to step **744**. If not, the current fast decision beam selection **440** is maintained at step **742**.

[0190] At step **744**, it is determined whether the fast decision method has timed out. Step **744** may be similar or identical to step **720**. If it is determined at step **742** that fast decision method has timed out, steps **722** through **727** may be performed. If it is determined at step **742** that fast decision method has not timed out, the method may return to step **732**.

[0191] FIGS. **14** and **15** illustrate a system and method for determining gain settings **490** for use in determining fast decision beam selections **440** in accordance with an embodiment of the present invention. As shown in FIG. **14**, host processor **118** includes gain control module **488** that may include gain storage unit **494**. Gain control module **488** is generally operable to determine gain settings **490** for use in receiving unit **108** based on one or more inputs. In one embodiment, these inputs include relevant signaling information **754** received from signaling information monitoring module **106**, AGC gain values **750** determined by AGC device **482**, whether or not fast decision beam selection module **408** selected a fast decision beam selection **440**, and the current fast decision beam selection **440**. Gain storage unit **494** is operable to receive and store AGC gain values **750**. Gain control module **488** may be operable to execute a gain control algorithm **752** to determine gain settings **490**. Gain control algorithm **752** is described in greater detail below with reference to FIG. **15**.

[0192] Generally, gain control module **488** is operable to determine gain settings **490** for each beam receiver **112** for the beginning of the next time slot (or for a particular time slot in the future) by selecting a baseline value for the gain of each beam receiver **112** and adjusting none, one, several or all of the baseline values. In one embodiment, the AGC gain values **750** determined during the past time slot (in other words, during the portion of the past time slot in which AGC device **482** was operating) are used as the baseline values for the gain of each beam receiver **112**. In another embodiment, the gain settings **490** determined by gain