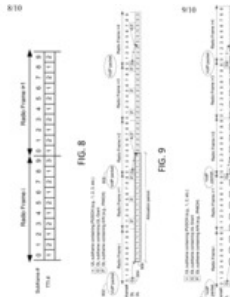
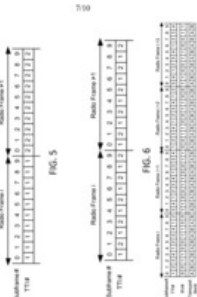
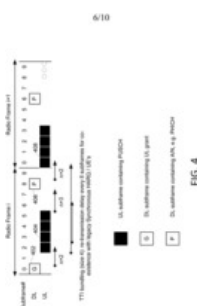
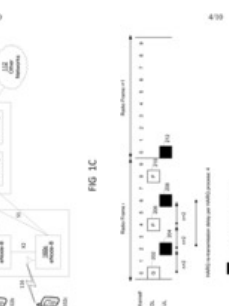
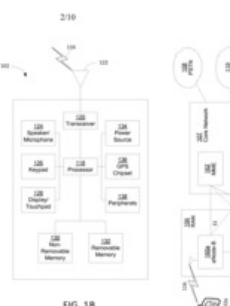
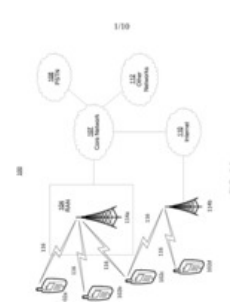
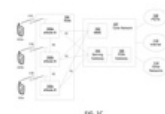
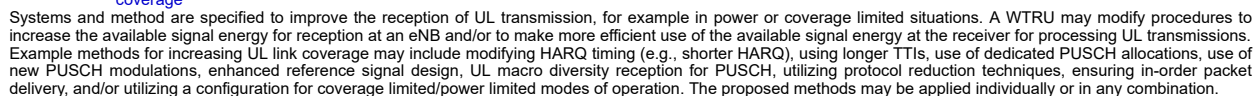
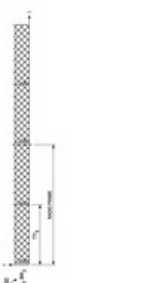
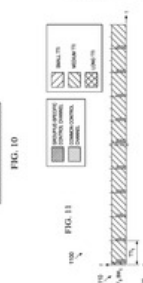
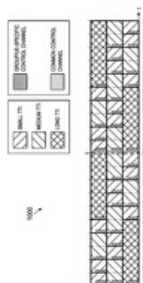
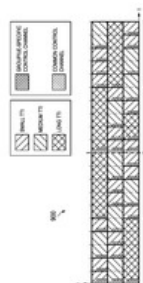
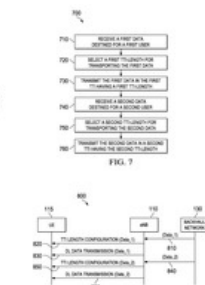
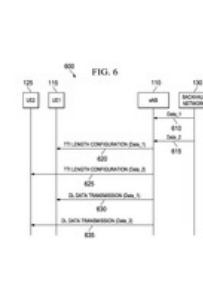
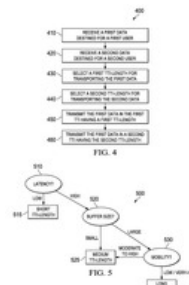
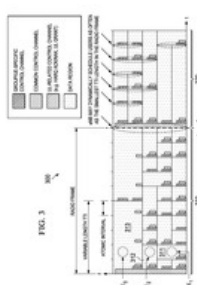
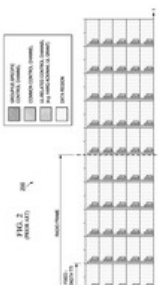
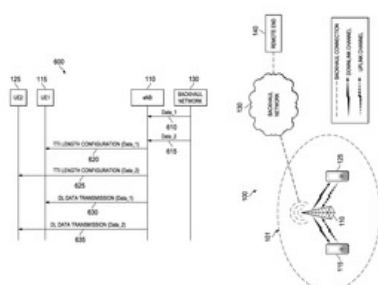


Methods and devices are provided for communicating data in a wireless channel. In one example, a method includes adapting the transmission time interval (TTI) length of transport container for transmitting data in accordance with a criteria. The criteria may include (but is not limited to) a latency requirement of the data, a buffer size associated with the data, a mobility characteristic of a device that will receive the data. The TTI lengths may be manipulated for a variety of reasons, such as for reducing overhead, satisfy quality of service (QoS) requirements, maximize network throughput, etc. In some embodiments, TTIs having different TTI lengths may be carried in a common radio frame. In other embodiments, the wireless channel may be partitioned into multiple bands each of which carrying (exclusively or otherwise) TTIs having a certain TTI length.



A controlling method and a radio base station apparatus capable of variably determining a Transmission Time Interval (TTI) length in accordance with a communication environment of a mobile terminal is disclosed. The radio base station apparatus includes a receiving section receiving information via an uplink channel; and a scheduler variably determining a Transmission Time Interval (TTI) length for any one of an uplink shared channel and a downlink shared channel or both based on at least any of a moving speed of a mobile terminal, location of the mobile terminal in a cell, a provided throughput value, and a number of retransmissions obtained from the received information. Preferably, the scheduler includes a TTI length allocation table describing relationships between parameter values and the corresponding TTI length, the parameters being used for estimating the location and/or the moving speed of the mobile terminal.

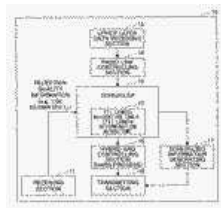
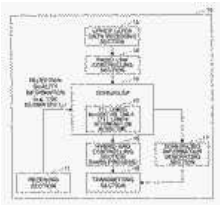


FIG. 2A

EXAMPLE WHERE MOVING SPEED AND LOCATION OF UE ARE USED AS PARAMETERS

AVERAGE CQI	ESTIMATED CQI (dB)	α	β	γ	δ	ϵ	ζ
CQI = CQI ₁	S_1	S_2	S_3	S_4	S_5	S_6	S_7
CQI = CQI ₂	S_1	S_2	S_3	S_4	S_5	S_6	S_7
CQI = CQI ₃	S_1	S_2	S_3	S_4	S_5	S_6	S_7

S_1 : POSITIVE REAL NUMBER, $S_2 \leq S_1 \leq S_3$
 S_4 : POSITIVE REAL NUMBER, $S_5 \leq S_4 \leq S_6$

FIG. 2B

EXAMPLE WHERE AVERAGE THROUGHPUT IS USED AS PARAMETER

AVERAGE THROUGHPUT (bit/s)	TTI LENGTH
$T_1 \sim T_2$	L_1
$T_3 \sim T_4$	L_2
$T_5 \sim T_6$	L_3

T_1 : POSITIVE REAL NUMBER, $T_2 \leq T_1 \leq T_3$