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(54) **INDICATION OF RETRANSMISSION FOR UPLINK IN NTN SYSTEMS**

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(57) **ABSTRACT**

This disclosure presents solutions for a communication system of a non-terrestrial network (NTN) node and a user equipment (UE) to determine, where the NTN node can determine one or more HARQ retransmission schemes for one or more LCHs used by the UE. The HARQ retransmission scheme can be mapped into one, two, or five bits of the DCI signal, depending on the mapping algorithm selected. In some example embodiments. LCHs can be grouped by using similar LCH prioritization or similar HARQ retransmission schemes. HARQ retransmission schemes can be mapped to the LCG. If there remains sufficient data space in the TBS/UL, other LCH can be included into the transmission even though the other LCH utilize different HARQ retransmission schemes. The UE can encode its HARQ transmission using the HARQ retransmission scheme indicated for the LCH the UE is utilizing.