Interface Control Document for LTU Ground Station Network

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This document details the interface control document for LTU satellite ground station for the QB50 mission. Downlink and uplink communication with individual ground stations is through UDP packets sent through OpenVPN.

# Downlink

  
 Figure 1: Downlink packet format

|  |  |  |
| --- | --- | --- |
| Field | Length | Value |
| SYNC WORD | 4 | 0x1acffc1d |
| LENGTH | 1 | Frame length without SYNC WORD and LENGTH fields |
| ERRORS CORRECTED | 1 | Number of RS bytes corrected |
| DATA | X | Reed-Solomom corrected AX.25 frame with stripped CRC |

# UPLINK

  
Figure 2: Uplink packet format

|  |  |  |
| --- | --- | --- |
| Field | Length | Value |
| SYNC WORD | 4 | 0x1acffc1d |
| LENGTH | 1 | Frame length without SYNC WORD and LENGTH fields |
| DATA | X | Unstuffed AX.25 frames without CRC |