Spacecraft Telemetry Simulator

The STS provides a means of verifying the functionality of the command generator and telemetry receiver before connection to the spacecraft. The STS can be configured to perform in a standalone mode or can communicate over a LAN connection to provide additional functionality.

Command Receiver.

- Has a dual channel (CTU1 and CTU2) Baseband Spacecraft Command Receiver that receives spacecraft Data, Clock, and Execute signals as RS422 differential levels and decodes spacecraft commands.

- Provides the commands in LAN packets to remote users.

- Places the decoded command opcodes into the simulated telemetry stream to facilitate verification of the command process in the standalone mode.

- Operates over a nominal data rate range of 80 to 1100 bits per second.

Telemetry Generator.

- Generates a single Interleaved stream or separate Normal and Auxiliary streams.

- Telemetry streams are BiPhase-L encoded.

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- The telemetry consists of configurable fixed minor frames with minor frame counter and command opcode inserted.

- Data rate can be configured in the range 1024 to 8192 bits per second

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