GBT Spectrometer: Modified guppi_daq SoftwareFormat of the Buffer Block at Input to Disk Thread

| FITS Header (23 040 bytes) Stores telescope position, frequency, bandwidth, etc | |
|---|---|
| Number of datasets (1 to N) (4 bytes) | Size of single data array (4 bytes) |
| Offset of 1 st structure (4 bytes) | Offset of 1 st data array (4 bytes) |
| Offset of 2 nd structure (4 bytes) | Offset of 2 nd data array (4 bytes) |
| | |
| Offset of 4096 th structure (4 bytes) | Offset of 4096 th data array (4 bytes) |
| First dataset (sdfits_data_columns structure + data array) | |
| Second dataset (sdfits_data_columns structure + data array) | |
| | |
| N th dataset (sdfits_data_columns structure + data array) | |
| Unused space (< 1 dataset) | |

8 bytes

Notes:

- Size of the block is variable. Typically 32MB.
- Unless specified, all fields are 64 bits
- A *dataset* is defined as an instance of the *sdfits_data_columns* structure, followed by the associated spectral data (the *data array*).
- The *offset* field indicates the relative position (within the data buffer block) of the start of the specified *structure* or *data array*.