**File Header**

188 bytes

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of block** | **Field** | **Format** | **Note** |
| **File Format**  16 bytes | FileName | *String* com 16 caracteres (um byte por caractere)  “RFlookBin v.1/01”  Format: RF Look Bin  Version: 1  DataType: 01 |  |
| **Task**  88 bytes | TaskName | *String* com 32 caracteres (um byte por caractere) |  |
| EstimatedSamples | Uint32 |  |
| WritedSamples | Uint32 |  |
| BitsPerPoint | Uint8  8 | 16 | 32 | 64 |  |
| ThreadID | Uint16 |  |
| Antenna | int8 | Valores entre -128 e 127. “-1” |
| AntennaHeight | int8 | Ground level reference.  Valores entre 0 e 127 metros. “-1” |
| AntennaAzimuth | int16 | Valores entre 0 e 360 graus. “-1” |
| AntennaElevation | int8 | Valores entre 0 e 90 graus. “-1” |
| RevisitTime | single (float32) |  |
| IntegrationTime | single (float32) |  |
| Threshold | int16 (+1000) |  |
| Alignment | 2 bytes |  |
| Description | *String* com 32 caracteres (um byte por caractere) |  |
| **Spectrum analyzer MetaData**  58 bytes | Node | *String* com 32 caracteres (um byte por caractere) |  |
| F0 | single (float32) |  |
| F1 | single (float32) |  |
| Resolution | single (float32) |  |
| DataPoints | uint16 |  |
| TraceMode | int8 |  |
| Detector | int8 |  |
| LevelUnit | int8 |  |
| Preamp | int8 |  |
| AttenuationMode | int8 |  |
| AttenuationFactor | int8 |  |
| SampleTime | single (float32) |  |
| Alignment | 2 bytes |  |
| **GPS Data**  18 bytes | gpsType | uint8 | 0 (manual) | 1 (auto) |
| gpsStatus | uint8 | -1 (manual) | 0 (manual) | 1 (valid) | 2 (valid) |
| Latitude | single (float32) | IF gpsStatus <= 0: Latitude = -1 |
| Longitude | single (float32) | IF gpsStatus <= 0: Longitude = -1 |
| utcTimeStamp\_YY | int8 (-2020) | IF gpsType = 0 || gpsStatus == 0:  utcTimeStamp\_YY = -1  utcTimeStamp\_MM = -1  utcTimeStamp\_DD = -1  utcTimeStamp\_HH = -1  utcTimeStamp\_mm = -1  utcTimeStamp\_ss = -1  utcTimeStamp\_SSS = -1 |
| utcTimeStamp\_MM | int8 |
| utcTimeStamp\_DD | int8 |
| utcTimeStamp\_HH | int8 |
| utcTimeStamp\_mm | int8 |
| utcTimeStamp\_ss | int8 |
| utcTimeStamp\_SSS | int16 (\*1000) |
| **Offset Info**  8 bytes | Offset1 | Uint32 | Start byte of GPS/localTimeStamp Block |
| Offset2 | Uint32 | Start byte of Spectral Block |

**Gps/TimeStamp Data**

(20\*EstimatedSamples) bytes

|  |  |
| --- | --- |
| **Field** | **Format** |
| localTimeStamp\_YY | int8 (-2020) |
| localTimeStamp\_MM | int8 |
| localTimeStamp\_DD | int8 |
| localTimeStamp\_HH | int8 |
| localTimeStamp\_mm | int8 |
| localTimeStamp\_ss | int8 |
| localTimeStamp\_SSS | int16 (\*1000) |
| RefLevel | Int16 |
| AttenuationFactor | uint8 |
| gpsStatus | uint8 |
| Latitude | single (float32) |
| Longitude | single (float32) |

**Spectral Block**

(BitsPerPoint/8 \* DataPoints \* EstimatedSamples) bytes

|  |  |
| --- | --- |
| **Field** | **Format** |
| Array of Levels | Vetor com comprimento igual a DataPoints, sendo cada número representado como single (float32) |