HERSCHEL / PLANCK

# Generic Data Collection

# H-P-1-ASP-TN-0543

# Product Code : 460000

| **Rédigé par/*Written by*** | **Responsabilité-Service-Société** ***Responsibility-Office -Company*** | **Date** | **Signature** |
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| EXTERNAL DISTRIBUTION | | INTERNAL DISTRIBUTION | |
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| ESA | Yes | HP team | Yes |
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## ENREGISTREMENT DES EVOLUTIONS / *CHANGE RECORDS*

| ISSUE | DATE | § : DESCRIPTION DES EVOLUTIONS<br>*§ : CHANGE RECORD* | REDACTEUR<br>*AUTHOR* |
|---|---|---|---|
| 1.0 | 8/06/2004 | Generic Data Definition inside HPSDB | S. Dos Santos |
| 1.1 | 21/10/2004 | Add note for explanation of TC packet header GX0001000<br>Chapter 1 :<br>Addition of a note for PSICD template relevant to SID1 and SID2 position and length for each (type, subtype) couple<br>Addition of a paragraph relevant to S2K identifiers for curves, command verification stage and parameter range set.<br>Chapter 3.1.2<br>Modification of subtitle<br>Chapter 3.4<br>Note added to explain generic CVS S2K identifier<br>Chapter 3.7.6<br>Note added to explain generic command parameter range set S2K identifier<br>Chapter 3.8<br>Note added to explain generic curve S2K identifier<br>Note : the implementation of generic S2K identifier for curve, CVS and parameter range set have been decided during DMWG21 (20/10/04)<br>Chapter 3.1.2<br>Updated according to PSICD 5.0 and in order to have unique PIC table<br>All chapters<br>Minor corrections<br>Chapter 3.8.1<br>Addition of digital curves SET / RESET and RESET / SET according to SES request<br>Note : SES request for dummy TM parameters has not been included in this version. It will be in next one. | F. Chatte |
| 1.2 | 30/12/2004 | Add Spare acquisition parameters (1 to 16 bits)<br>GMS01000<br>GMS02000<br>GMS03000<br>GMS04000<br>GMS05000<br>GMS06000<br>GMS07000<br>GMS08000<br>GMS09000<br>GMS10000<br>GMS11000<br>GMS12000<br>GMS13000<br>GMS14000<br>GMS15000<br>GMS16000 | S. Dos Santos |

| | | | |
|---|---|---|---|
| | | Update the Command header parameter identifier from GBSCF000 to GBSCS000<br>Add the command parameters:<br>GPABS000 (Absolute Time-Tag needed for CCS)<br>GPSUB000 (Sub-Schecdule for TTs needed for CCS)<br>Add the command parameters:<br>GPACT000 (Mandatory but not used in AIT. Forced to 0)<br>GPRCD000 (RC Id identify the command to be executed on SCOE (identifies by APID)<br>GPSTR000 (Structure Id )<br><br>Add the TC packet<br>GC0TT000 (Insert MTL-Telecommands in Command Schedule needed for CCS ) | |
| 1.3 | 17/01/2005 | Add a TC packet Header GX001000 without header (ALS DBN 0036) (see chapter 3.2.1.2 TC Packet Header Without Header)<br><br>Add Identifier 1 position =18 and Identifier 1 width =2 to TM PSICD packet 000TMPS003010000 (see chapter 3.1.2.8TM HK Parameter Report Definitions Report (3, 10))<br><br>Add Identifier 1 position =18 and Identifier 1 width =2 to TM PSICD packet 000TMPS003012000 (see chapter 3.1.2.9TM Diagnostic Parameter Definition Report (3, 12)) | S. Dos Santos |
| 1.4 | 23/05/2005 | Acronyms Update (see chapter 2.2 Introduction)<br><br>Update the Pcf,Ptc attributes from the Acquisition Spare Parameters 9 bits to 16 bits (see chapter 3.7.1.9 Spare 9 – Bit)<br><br>Add the attribute Category flag, to all items<br><br>Add 16 Spare Acquisition parameters for software users (see 3.7.2 Aquisition Parameters ( for OBSW User).)<br><br>Update Generic curves id , to be compliant with the issue 2.2 of AD1<br><br>Correct error on digital point of curve G000018000 (see 3.8.1.19 STOP_RUN_PAUSE)<br><br>Add Comand verification stages<br>• CVS- Aceptance (see chapter 3.4.1Command verification stage-Acceptance)<br>• CVS – Start (see chapter 3.1.2.2TM TC Acceptance Report-Failure (1, 2))<br>• CVS – Progress number 0 (see chapter 3.4.3Command verification stage Progress number 0 )<br>• CVS – Progress number 1 (see chapter3.4.4Command verification stage Progress number 1)<br>• CVS – Progress number 2 (see chapter 3.4.5Command verification stage Progress number 2<br>• CVS – Progress number 3 (see chapter 3.4.6Command | S. Dos Santos |

| | | | |
|---|---|---|---|
| | | verification stage Progress number 3 )<br>• CVS – Progress number 4 (see chapter 3.4.7Command verification stage Progress number 4)<br>• CVS – Progress number 5 (see chapter 3.4.8Command verification stage Progress number 5)<br>• CVS – Progress number 6 (see chapter 3.4.9Command verification stage Progress number 6)<br>• CVS – Progress number 7 (see chapter 3.4.10Command verification stage Progress number 7)<br>• CVS – Progress number 8 (see chapter 3.4.11Command verification stage Progress number 8)<br>• CVS – Progress number 9 (see chapter 3.4.12Command verification stage Progress number 9)<br>• CVS – Completion (see chapter 3.4.13Command verification stage Completion)<br><br>Add Annex with Generic XML print | |

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# 1. INTRODUCTION

This technical note has the objective to identify the generic items that shall be input on HPSDB central site by the prime company before HPSDB being available to the Users.
Generic items are the items which are not attached to an element, subsystem or model but which can be referenced by any element, subsystem or model. Those items are not instantiated, they are defined in the generic box. HPSDB supports the definition of all items as generic.
All the HPSDB Users have read access to this type of data, but only the HPSDB central site manager has write access. It's not possible to create/modify/delete generic items on a mirror site.
It is expected that all HPSDB users make use of those generic items in order to avoid unsafe duplication of items ( for instance several ON / OFF curves with small differences in the way that they are implemented).
In particular, reference must be made to :

- TM PSICD items
  One TM PSICD item is present in generic box for each TM service type, and subtype defined on RD1 ( see 3.1.2 TM packet PSICD data). There is no need to create any other TM Packet PSICD or TM Packet Standard.
  Note that for TM (8,6),TM(8,7) and TM (8,9) the Function ID and the Activity ID defined on RD1 as two 8- bit parameters have been merged in an unique 16 bit parameter.
  Note : the generic PSICD items contains the structure identifier 1 (SID1) and the structure identifier 2 (SID2) position and length which shall be used by all the Herschel / Planck users (refer to AD1 issue 2.2).
- Acquisition parameter items
  16 Spare acquisition parameters are defined for all users except Flight Dynamic Data
  16 Spare acquisition parameters are defined only for Software Users.
- TC Packet Header items
  Three TC packet Header are defined ( see 3.2.1 TC packet header data)
  - GX000000 has to be refer to by all TC packets defined in RD1 except the standard TC (2,3)
  - GX001000 TC packet header without header (ie no entries on the pcpc.dat and tcpf.dat scos tables)
  - GX002000 has to be refer to by the standard TC (2,3)

  Consequently there is no need to create any other TC packet header nor Command Header parameters items.
  An exception to this rule can be envisaged for the testing of TC packet with TC Header rejection. Because a wrong TC packet will not be created on a generic box.
- TC Packet
  Load Command on the MTL
- Command Verification stages (this is a provision mainly the delay field CVS_INTERVAL) If the field is not approprated, the user should define their own CVS.
  One command verification stage per level (Acceptance, Start, Progression 0-9, Completion ) have been defined as Generic.
- Command parameter items
  16 Spare command parameters are defined with value 0
  5 command parameters
- Calibration Curves
  33 digital calibration curves are defined (see 3.8.1 Digital curve data )
  2 polynomial calibration curves are defined (see 3.8.4 Polynomial Curves )

For the following generic items :

- Calibration curve,
- Command verification stage,
- Parameter range set

This document provides also the S2K identifier which differs from the HPSDB one due to a different format.

In addition due to S2K Command Verification Stage identifier format (integer in the range [0..65535], the HPSDB generic CVS identifier shall be in the range [000-9999], this is not controlled by HPSDB it is the user responsibility to check it.

# 2. APPLICABLE AND REFERENCE DOCUMENTS

## 2.1 Applicable documents

| | | |
|---|---|---|
| AD1 | H-P-1-ASPI-ID-0141 | Naming convention specification |
| AD2 | H-P-1-ASPI-SP-0082 | System Database Specification |

### *2.1.1 Reference documents*

| | | |
|---|---|---|
| RD1 | SCI-PT-ICD-7527 | Packet Structure Interface Control Document |
| RD2 | H-P-1-ASPI-SP-0027 | General Design and Interface Requirements |
| RD3 | DSN 3408 02 AA | Thermistor Fenwal N 526-31-bs13-153 with ETFE wire Technical specification supply |
| RD4 | PDS2131 | Product Data Sheet Rev 6/97 |

## 2.2 Acronyms

| | |
|---|---|
| CVS | Command Verification Stage |
| FDD | Flight Dynamic Data |
| HP | Herschel-Planck |
| HPSDB | Herschel / Planck System Data Base |
| MMI | Man Machine Interface |
| OBSW | OnBoard SoftWare |
| TBW | To be write |
| XML | eXtensive Markup Language |

## 2.3 Definition

# 3. GENERIC ITEMS:

## 3.1 Telemetry:

### *3.1.1 TM packet standard*

| Field | Value |
|---|---|
| TM packet standard | 000TMSD0000000 |
| Short description | TM Packet Standard |
| Long description | TM Standard template Common to Herschel and Planck |

### *3.1.2 TM packet PSICD data*

#### 3.1.2.1 TM TC Acceptance Report- Success (1, 1)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS001001000 |
| Short description, | TM_TCAccepSuccess |
| Long description, | Telecommand Acceptance Report – Success (1,1) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 1 |
| Subtype, | 1 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

#### 3.1.2.2 TM TC Acceptance Report- Failure (1, 2)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS001002000 |
| Short description, | TM_TCAccepFailure |
| Long description, | Telecommand Acceptance Report – Failure (1,2) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 1 |
| Subtype, | 2 |
| Identifier 1 position, | 20 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

#### 3.1.2.3 TM TC Execution Report-Started (1, 3)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS001003000 |
| Short description, | TM_TCExeStarted |

| | |
|---|---|
| Long description, | Telecommand Execution Report – Started (1,3) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 1 |
| Subtype, | 3 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.4 TM TC Execution Report-Progress (1, 5)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS001005000 |
| Short description, | TM_TCExeProgress |
| Long description, | Telecommand Execution Report – Progress (1,5) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 1 |
| Subtype, | 5 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.5 TM Execution Report-Completed (1, 7)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS001007000 |
| Short description, | TM_TCExeCompleted |
| Long description, | Telecommand Execution Report – Completed (1,7) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 1 |
| Subtype, | 7 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.6 TM TC Execution Report-Failure (1, 8)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS001008000 |
| Short description, | TM_TCExeFailure |
| Long description, | Telecommand Execution Report – Failure (1,8) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 1 |
| Subtype, | 8 |
| Identifier 1 position, | 20 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

### 3.1.2.7 TM TC Contents Report (1, 9)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS001009000 |
| Short description, | TM_TCContentsReport |
| Long description, | Telecommand Contents Report (1,9) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 1 |
| Subtype, | 9 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.8 TM HK Parameter Report Definitions Report (3, 10)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS003010000 |
| Short description, | TM_ HKParameterDefReport |
| Long description, | HK Parameter Report Definitions Report (3,10) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 3 |
| Subtype, | 10 |
| Identifier 1 position, | 18 |

| | |
|---|---|
| Identifier 1 width, | 2 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

### 3.1.2.9 TM Diagnostic Parameter Definition Report (3, 12)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS003012000 |
| Short description, | TM_DiagnosticDefParameter |
| Long description, | Diagnostic Parameter Report Definition Report (3,12) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 3 |
| Subtype, | 12 |
| Identifier 1 position, | 18 |
| Identifier 1 width, | 2 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

### 3.1.2.10 TM HK Parameter Report (3, 25)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS003025000 |
| Short description, | TM_HKParameterReport |
| Long description, | HK Parameter Report (3,25) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 3 |
| Subtype, | 25 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

### 3.1.2.11 TM Diagnostic Parameter Report (3, 26)

| Field | Value |
|---|---|

| | |
|---|---|
| TM packet PSICD identifier, | 000TMPS003026000 |
| Short description, | TM_DiagnosticParameter |
| Long description, | Diagnostic Parameter Report (3,26) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 3 |
| Subtype, | 26 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

### 3.1.2.12 TM Event Report (5, 1)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS005001000 |
| Short description, | TM_EventReport |
| Long description, | Event Report (5,1) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 5 |
| Subtype, | 1 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | 18 |
| Identifier 2 width, | 16 |
| Category flag | All except FDD |

### 3.1.2.13 TM Exception Report (5, 2)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS005002000 |
| Short description, | TM_ExceptionReport |
| Long description, | Exception Report (5,2) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 5 |
| Subtype, | 2 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | 18 |
| Identifier 2 width, | 16 |
| Category flag | All except FDD |

### 3.1.2.14 TM Error/Alarm Report (5,4)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS005004000 |
| Short description, | TM_ErrorAlarmReport |
| Long description, | Error/Alarm Report (5,4) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 5 |
| Subtype, | 4 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | 18 |
| Identifier 2 width, | 16 |
| Category flag | All except FDD |

### 3.1.2.15 TM Memory Dump, Absolute Addresses (6, 6)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS006006000 |
| Short description, | TM_MemDumpAbsAd |
| Long description, | Memory Dump, Absolute Addresses (6,6) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 6 |
| Subtype, | 6 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.16 TM Memory Check Report , Absolute addresses (6, 10)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS006010000 |
| Short description, | TM_MemCheckAbsAd |
| Long description, | Memory Check Report, Absolute addresses (6,10) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 6 |
| Subtype, | 10 |

| | |
|---|---|
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.17 TM Function Status Report (8, 6)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS008006000 * |
| Short description, | TM_FunctionStatus |
| Long description, | Function Status Report (8,6) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 8 |
| Subtype, | 6 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | 18 |
| Identifier 2 width, | 16 |
| Category flag | All except FDD |

(*)This generic definition applies if the packet contains the optional field SID. If the filed SID is not defined inside of the packet a dedicated TM Packet PSICD has to be defined. (This is not compliant with SCOS – PSICD will be modified : TBC)

### 3.1.2.18 TM SREM Data Report (8, 7)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS008007000 |
| Short description, | TM_SREMDataReport |
| Long description, | SREM Data Report (8,7) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 8 |
| Subtype, | 7 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | 18 |
| Identifier 2 width, | 16 |
| Category flag | All except FDD |

### 3.1.2.19 TM VMC Data Report (8, 8)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS008008000 |
| Short description, | TM_VMCDataReport |

| | |
|---|---|
| Long description, | VMCData Report (8,8) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 8 |
| Subtype, | 8 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

### 3.1.2.20 TM Mass Memory Dump Report (8, 9)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS008009000 |
| Short description, | TM_MassMemDump |
| Long description, | Mass Memory Dump Report (8,9) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 8 |
| Subtype, | 9 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | 18 |
| Identifier 2 width, | 16 |
| Category flag | All except FDD |

### 3.1.2.21 TM Central Time Reference (9, 8)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS009008000 |
| Short description, | TM_CentralTimeReference |
| Long description, | Central Time Reference (9,8) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 9 |
| Subtype, | 8 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.22 TM Time Verification Report (9, 9)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS009009000 |
| Short description, | TM_TimeVerification |
| Long description, | Time Verification Report (9,9) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 9 |
| Subtype, | 9 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.23 TM Detailed Schedule Report (11, 10)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS011010000 |
| Short description, | TM_DetailedSchedule |
| Long description, | Detailed Schedule Report (11,10) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 11 |
| Subtype, | 10 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.24 TM Summary Schedule Report (11, 13)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS011013000 |
| Short description, | TM_SummarySchedule |
| Long description, | Summary Schedule Report (11,13) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 11 |
| Subtype, | 13 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |

| | |
|---|---|
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.25 TM Command Schedule Status Report (11, 19)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS011019000 |
| Short description, | TM_CmdScheduleStatus |
| Long description, | Command Schedule Status Report (11,19) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 11 |
| Subtype, | 19 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.26 TM Current Monitoring List Report (12, 9)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS012009000 |
| Short description, | TM_CurrentMonitorList |
| Long description, | Current Monitoring List Report (12,9) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 12 |
| Subtype, | 9 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.27 TM Enabled Telemetry Packets Report (14, 4)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS014004000 |
| Short description, | TM_EnabTMPacket |
| Long description, | Enabled Telemetry Packets Report (14,4) |

| | |
|---|---|
| TM packet standard , | 000TMSD0000000 |
| Type, | 14 |
| Subtype, | 4 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.28 TM TM Packets Down-linking / Storage Status Report (14, 7)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS014007000 |
| Short description, | TM_DownLink |
| Long description, | TM Packets Down-link. / Stor. Status Report |
| TM packet standard , | 000TMSD0000000 |
| Type, | 14 |
| Subtype, | 7 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.29 TM Storage Selection Definition Report (15, 6)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS015006000 |
| Short description, | TM_StorageSelecDef |
| Long description, | Storage Selection Definition Report (15,6) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 15 |
| Subtype, | 6 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 8 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

### 3.1.2.30 TM Packet Stores Catalogue Report (15, 13)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS015013000 |
| Short description, | TM_PacketStoresCatalogue |
| Long description, | Packet Stores Catalogue Report (15,13) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 15 |
| Subtype, | 13 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.31 TM Connection Test Report (17, 2)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS017002000 |
| Short description, | TM_ConnectionTest |
| Long description, | Connection Test Report (17,2) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 17 |
| Subtype, | 2 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.32 TM On-Board Control Procedures List Report (18, 9)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS018009000 |
| Short description, | TM_OnBoardCtProc |
| Long description, | On-Board Control Procedures List Report (18,9) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 18 |
| Subtype, | 9 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.33 TM Active OBCPs List Report (18, 11)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS018011000 |
| Short description, | TM_ActiveOBCPList |
| Long description, | Active OBCPs List Report (18,11) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 18 |
| Subtype, | 11 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.34 TM OBCP Status Report (18, 13)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS018013000 |
| Short description, | TM_OBCPStatus |
| Long description, | OBCP Status Report (18,13) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 18 |
| Subtype, | 13 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.35 TM OBCP Contents Report (18, 15)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS018015000 |
| Short description, | TM_OBCPContents |
| Long description, | OBCP Contents Report (18,15) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 18 |
| Subtype, | 15 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |

| | |
|---|---|
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.36 TM Event Detection List Report (19, 7)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS019007000 |
| Short description, | TM_EventDetecList |
| Long description, | Event Detection List Report (19,7) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 19 |
| Subtype, | 7 |
| Identifier 1 position, | -1 |
| Identifier 1 width, | 0 |
| Identifier 2 position, | |
| Identifier 2 width, | |
| Category flag | All except FDD |

### 3.1.2.37 TM Nominal Science Data Report (21, 1)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS021001000 |
| Short description, | TM_NominalScienceData |
| Long description, | Nominal Science Data Report (21,1) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 21 |
| Subtype, | 1 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

Note: no structure identifier extracted as far as it is science data.

### 3.1.2.38 TM Science Type B Data Report (21, 2)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS021002000 |
| Short description, | TM_ScienceTypeBData |

| | |
|---|---|
| Long description, | Science Type B Data Report (21,2) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 21 |
| Subtype, | 2 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

Note: no structure identifier extracted as far as it is science data.

### 3.1.2.39 TM Diagnostic Science Data Report (21, 3)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS021003000 |
| Short description, | TM_DiagScienceData |
| Long description, | Diagnostic Science Data Report (21,3) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 21 |
| Subtype, | 3 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

Note: no structure identifier extracted as far as it is science data.

### 3.1.2.40 TM Auxiliary Science Data Report (21, 4)

| Field | Value |
|---|---|
| TM packet PSICD identifier, | 000TMPS021004000 |
| Short description, | TM_AuxScienceData |
| Long description, | Auxiliary Science Data Report (21,4) |
| TM packet standard , | 000TMSD0000000 |
| Type, | 21 |
| Subtype, | 4 |
| Identifier 1 position, | 16 |
| Identifier 1 width, | 16 |
| Identifier 2 position, | -1 |
| Identifier 2 width, | 0 |
| Category flag | All except FDD |

Note: no structure identifier extracted as far as it is science data.

### 3.1.3 TM Packet Data

Not identified

### 3.1.4 TM Packet SCOS archiving

TBW. Waiting for clarification with ALS & Terma

### 3.1.5 TM structure data

Not identified

### 3.1.6 TM packet group data

Not identified

## 3.2 Telecommands

### 3.2.1 TC packet header data

Two TC packet headers are defined for the Herschel Planck project :

#### 3.2.1.1 TC Packet Header With Data Field Header

| Field | Value |
|---|---|
| TC packet header identifier | GX000000 |
| Short description | TC_PacketHeader_DFHis1 |
| Long description | TC Packet Header with Data field Header (DFH=1) |
| Category flag | All except FDD |
| List of parameter : | |
| TC packet parameter identifier, | Version Number |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 0 |
| Length | 3 |
| Value, | 0 |
| Radix. | Decimal |
| TC packet parameter identifier, | Type |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 3 |
| Length | 1 |
| Value, | 1 |
| Radix. | Decimal |
| TC packet parameter identifier, | DFH |
| TC packet parameter type, | Fixed Area |

| | |
|---|---|
| Bit offset, | 4 |
| Length | 1 |
| Value, | 1 |
| Radix. | Decimal |
| TC packet parameter identifier, | GBAPD000 |
| TC packet parameter type, | APID |
| Bit offset, | 5 |
| Length | 11 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | Seq Flag |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 16 |
| Length | 2 |
| Value, | 3 |
| Radix. | Decimal |
| TC packet parameter identifier, | GBSCT000 |
| TC packet parameter type, | Parameter |
| Bit offset, | 18 |
| Length | 3 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | GBSCS000 |
| TC packet parameter type, | Parameter |
| Bit offset, | 21 |
| Length | 11 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | GBLEN000 |
| TC packet parameter type, | Parameter |
| Bit offset, | 32 |
| Length | 16 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | Sec Header |
| TC packet parameter type, | Fixed Aread |
| Bit offset, | 48 |
| Length | 1 |
| Value, | 0 |
| Radix. | Decimal |
| TC packet parameter identifier, | PUS |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 49 |
| Length | 3 |
| Value, | 0 |
| Radix. | Decimal |
| TC packet parameter identifier, | GBACK000 |
| TC packet parameter type, | Acknowledgment |
| Bit offset, | 52 |

| | |
|---|---|
| Length | 4 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | GBTYP000 |
| TC packet parameter type, | Type |
| Bit offset, | 56 |
| Length | 8 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | GBSTY000 |
| TC packet parameter type, | Subtype |
| Bit offset, | 64 |
| Length | 8 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | Spare |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 72 |
| Length | 8 |
| Value, | 0 |
| Radix. | Decimal |

### 3.2.1.2 TC Packet Header Without Header

| Field | Value |
|---|---|
| TC packet header identifier | GX001000 |
| Short description | TC_Header_Without_Header |
| Long description | TC Packet Header without Header |
| Category flag | All except FDD |

### 3.2.1.3 TC Packet Header Without Data Field Header

| Field | Value |
|---|---|
| TC packet header identifier | GX002000 |
| Short description | TC_PacketHeader_DFHis0 |
| Long description | TC Packet Header without Data Field Header (DFH=0) |
| Category flag | All except FDD |

| List of parameter : | |
|---|---|
| TC packet parameter identifier, | Version Number |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 0 |
| Length | 3 |
| Value, | 0 |
| Radix. | Decimal |
| TC packet parameter identifier, | Type |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 3 |
| Length | 1 |
| Value, | 1 |
| Radix. | Decimal |
| TC packet parameter identifier, | NDF |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 4 |
| Length | 1 |
| Value, | 0 |
| Radix. | Decimal |
| TC packet parameter identifier, | GBAPD000 |
| TC packet parameter type, | APID |
| Bit offset, | 5 |
| Length | 11 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | Seq Flag |
| TC packet parameter type, | Fixed Area |
| Bit offset, | 16 |
| Length | 2 |
| Value, | 3 |
| Radix. | Decimal |
| TC packet parameter identifier, | GBSCT000 |
| TC packet parameter type, | Parameter |
| Bit offset, | 18 |
| Length | 3 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | GBSCS000 |
| TC packet parameter type, | Parameter |
| Bit offset, | 21 |
| Length | 11 |
| Value, | |
| Radix. | Decimal |
| TC packet parameter identifier, | GBLEN000 |
| TC packet parameter type, | Parameter |
| Bit offset, | 32 |
| Length | 16 |
| Value, | |
| Radix. | Decimal |

Note:
For TC packet type = 2, subtype = 3 and ,APID=0, and MAPID =0, the TC packet header to be used is GX0002000 (ie with data field header flag set to 0 : no data field header)
For TC packet type = 2, subtype = 3 and ,APID=16, and MAPID =1, the TC packet header to be used is GX0000000 (ie with data field header flag set to 1 : existing data field header)

### *3.2.2 TC packet data*

#### 3.2.2.1 Load Command on the MTL

| Field | Value |
|---|---|
| TC packet identifier | GC0TT000 |
| Short description | Load Command on the MTL |
| Long description | Insert MTL-Telecommands in Command Schedule |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| APID category | 16 |
| High priority flag, | - |
| MAP identifier (0,1,2,32), | 1 |
| Type, | 11 |
| Sub type, | 4 |
| Acknowledgement- Acceptance | No |
| Acknowledgement- Start | No |
| Acknowledgement- Progress | No |
| Acknowledgement- Completion | No |
| Command type (N/R/F/S/"Null") | N (Normal) |
| Authorization flag (Y/N) | - |
| Identifier of redundant generic or element telecommand | - |
| Identifier of complementary generic or element telecommand | - |
| TC packet header identifier | GX000000 |
| List of command verification stage | |
| Generic or element command verification stage identifier | - |
| List of element TC or command parameter structures / command parameters / fixed areas | |
| Selector- Generic or element Command parameter identifier | - |
| Selector- Value radix (H/D), | - |
| Selector- Raw value | - |
| Type (structure, parameter or fixed area) | - |
| Generic or Element TC or command parameter structure identifier / Generic or element command parameter identifier / fixed area description | GPABS000 |
| Offset byte of the structure / parameter / fixed area field within the packet data field, | 0 |

| | |
|---|---|
| Start bit of the parameter / fixed area field within offset byte (N/A for theoretical structure) | 0 |
| For structure only : | - |
| Number of times the element structure / parameter is repeated in the packet (0 for variable packet length), | - |
| Generic or element command parameter identifier as counter or dummy counter | - |
| Value of counter or dummy counter | - |
| For parameter only | - |
| Editable flag | E |
| Value representation | Raw |
| Value - Constant or value flag | Value |
| Value - Constant identifier | - |
| Value - Value | - |
| Generic or element monitoring parameter identifier | - |
| Number of occurrences (by default 1) | 1 |
| Number of bits between two occurrences | - |
| For fixed area only | - |
| Field length- Constant or value flag | - |
| Field length- Generic or element constant identifier | - |
| Field length- Value | - |
| Selector- Generic or element Command parameter identifier | - |
| Selector- Value radix (H/D), | - |
| Selector- Raw value | - |
| Type (structure, parameter or fixed area) | - |
| Generic or Element TC or command parameter structure identifier / Generic or element command parameter identifier / fixed area description | GPSUB000 |
| Offset byte of the structure / parameter / fixed area field within the packet data field, | 0 |
| Start bit of the parameter / fixed area field within offset byte (N/A for theoretical structure) | 0 |
| For structure only : | - |
| Number of times the element structure / parameter is repeated in the packet (0 for variable packet length), | - |
| Generic or element command parameter identifier as counter or dummy counter | - |
| Value of counter or dummy counter | - |
| For parameter only | - |
| Editable flag | E |
| Value representation | Raw |
| Value - Constant or value flag | Value |
| Value - Constant identifier | - |
| Value - Value | - |
| Generic or element monitoring parameter identifier | - |
| Number of occurrences (by default 1) | 1 |
| Number of bits between two occurrences | - |
| For fixed area only | - |
| Field length- Constant or value flag | - |
| Field length- Generic or element constant identifier | - |

| | |
|---|---|
| Field length- Value | - |
| List of associated generic or element parameters sets<br>- | |
| Generic or element parameter set identifier | - |
| default generic or element parameter value set identifier | - |
| Default sub schedule identifier | - |
| Sending pre-conditions- Generic or element monitoring Parameter identifier | - |
| Sending pre-conditions - Value representation (E/R), | - |
| Sending pre-conditions – Value- Constant or value flag | - |
| Sending pre-conditions – Value- Generic or element constant identifier | - |
| Sending pre-conditions – Value- Value | - |
| Planification type (A/F/S/N) | N (None) |
| Executable elementary command (N/Y), | - |
| Interlock scope (G/L/S/N), | No interlock |
| Interlock stage (R/U/O/A/C) | Completion |
| Forbidden flag, | - |
| CDMU software initialisation flag | - |
| ACC software initialisation flag | - |

### *3.2.3 TC structure data*

Not identified

### *3.2.4 TC packet group data*

Not identified

## 3.3 Command Sequences

### *3.3.1 Command Sequences*

Not identified

## 3.4 Command verification stage

Note : in case generic command verification are defined, the SCOS 2000 identifiers shall be equal to the element command verification stagte identifier plus 10000. (For instance the generic CVS 071000000, on SCOS 200 files shall be 11000)

### 3.4.1 Command verification stage- Acceptance

| Field | Value |
|---|---|
| CVS identifier | 071000000 |
| Short description | Acceptance |
| Long description | Acceptance Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 10 |
| Stage Type | A |
| Source | R |

### 3.4.2 Command verification stage Start

| Field | Value |
|---|---|
| CVS identifier | 07010000 |
| Short description | Start |
| Long description | Start Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 20 |
| Stage Type | S |
| Source | R |

### 3.4.3 Command verification stage Progress number 0

| Field | Value |
|---|---|
| CVS identifier | 070000000 |
| Short description | Progress Number 0 |
| Long description | Progress Number 0 Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 30 |
| Stage Type | 0 |
| Source | R |

### 3.4.4 Command verification stage Progress number 1

| Field | Value |
|---|---|
| CVS identifier | 070010000 |
| Short description | Progress Number 1 |
| Long description | Progress Number 1 Command Verification Stage |
| Category flag | All except FDD |

| | |
|---|---|
| Delta time | 0 |
| Interval | 30 |
| Stage Type | 1 |
| Source | R |

### 3.4.5 Command verification stage Progress number 2

| Field | Value |
|---|---|
| CVS identifier | 070020000 |
| Short description | Progress Number 2 |
| Long description | Progress Number 2 Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 35 |
| Stage Type | 2 |
| Source | R |

### 3.4.6 Command verification stage Progress number 3

| Field | Value |
|---|---|
| CVS identifier | 070030000 |
| Short description | Progress Number 3 |
| Long description | Progress Number 3 Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 35 |
| Stage Type | 3 |
| Source | R |

### 3.4.7 Command verification stage Progress number 4

| Field | Value |
|---|---|
| CVS identifier | 070040000 |
| Short description | Progress Number 4 |
| Long description | Progress Number 4 Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 40 |
| Stage Type | 4 |
| Source | R |

### 3.4.8 Command verification stage Progress number 5

| Field | Value |
|---|---|
| CVS identifier | 070050000 |
| Short description | Progress Number 5 |
| Long description | Progress Number 5 Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 40 |
| Stage Type | 5 |
| Source | R |

### 3.4.9 Command verification stage Progress number 6

| Field | Value |
|---|---|
| CVS identifier | 070060000 |
| Short description | Progress Number 6 |
| Long description | Progress Number 6 Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 45 |
| Stage Type | 6 |
| Source | R |

### 3.4.10 Command verification stage Progress number 7

| Field | Value |
|---|---|
| CVS identifier | 070070000 |
| Short description | Progress Number 7 |
| Long description | Progress Number 7 Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 45 |
| Stage Type | 7 |
| Source | R |

### 3.4.11 Command verification stage Progress number 8

| Field | Value |
|---|---|
| CVS identifier | 070080000 |
| Short description | Progress Number 8 |
| Long description | Progress Number 8 Command Verification Stage |

| | |
|---|---|
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 50 |
| Stage Type | 8 |
| Source | R |

### 3.4.12 Command verification stage Progress number 9

| Field | Value |
|---|---|
| CVS identifier | 070090000 |
| Short description | Progress Number 9 |
| Long description | Progress Number 9 Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 50 |
| Stage Type | 9 |
| Source | R |

### 3.4.13 Command verification stage Completion

| Field | Value |
|---|---|
| CVS identifier | 070001000 |
| Short description | Completion |
| Long description | Completion Command Verification Stage |
| Category flag | All except FDD |
| Delta time | 0 |
| Interval | 60 |
| Stage Type | C |
| Source | R |

## 3.5 1553 Messages

### 3.5.1 Command word

Not identified

### 3.5.2 1553 Status word data

Not identified

### 3.5.3 1553 Message data

Not identified

### *3.5.4 1553 Acquisition command link*

Not identified

### *3.5.5 1553 Structure*

Not identified

### *3.5.6 1553 Message group data*

Not identified

## 3.6 OBDH

### *3.6.1 OBDH interrogation*

Not identified

### *3.6.2 OBDH acquisition command link*

Not identified

### *3.6.3 OBDH interrogation group data*

Not identified

## 3.7 Parameters

### *3.7.1 Acquisition Parameters (All except and FDD)*

#### 3.7.1.1 Spare 1 – Bit

| Field | Value |
|---|---|
| Item name | GMS01000 |
| Short description | SPARE_1_BIT |
| Long Description | Spare 1 bits |
| Category flag | All except FDD |

| Field | Value |
|---|---|
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 1 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |

| Field | Value |
|---|---|
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.2 Spare 2 – Bit

| Field | Value |
|---|---|
| Item name | GMS02000 |
| Short description | SPARE_2_BIT |
| Long Description | Spare 2 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 2 |
| Calibration Category | - |
| Units | - |

| Field | Value |
|---|---|
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

#### 3.7.1.3 Spare 3 – Bit

| Field | Value |
|---|---|
| Item name | GMS03000 |
| Short description | SPARE_3_BIT |
| Long Description | Spare 3 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |

| Field | Value |
|---|---|
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 3 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |

| Field | Value |
|---|---|
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.4 Spare 4 – Bit

| Field | Value |
|---|---|
| Item name | GMS04000 |
| Short description | SPARE_4_BIT |
| Long Description | Spare 4 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 4 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |

| Field | Value |
|---|---|
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.5 Spare 5 – Bit

| Field | Value |
|---|---|
| Item name | GMS05000 |
| Short description | SPARE_5_BIT |
| Long Description | Spare 5 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |

| Field | Value |
|---|---|
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 5 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.6 Spare 6 – Bit

| Field | Value |
|---|---|
| Item name | GMS06000 |
| Short description | SPARE_6_BIT |
| Long Description | Spare 6 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 6 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |

| Field | Value |
|---|---|
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.7 Spare 7 – Bit

| Field | Value |
|---|---|
| Item name | GMS07000 |
| Short description | SPARE_7_BIT |
| Long Description | Spare 7 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |

| Field | Value |
|---|---|
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 7 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.8 Spare 8 – Bit

| Field | Value |
|---|---|
| Item name | GMS08000 |
| Short description | SPARE_8_BIT |
| Long Description | Spare 8 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 8 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |

| Field | Value |
|---|---|
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.9 Spare 9 – Bit

| Field | Value |
|---|---|
| Item name | GMS09000 |
| Short description | SPARE_9_BIT |
| Long Description | Spare 9 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |

| Field | Value |
|---|---|
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 5 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.10 Spare 10 – Bit

| Field | Value |
|---|---|
| Item name | GMS10000 |

| Field | Value |
|---|---|
| Short description | SPARE_10_BIT |
| Long Description | Spare 10 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 6 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |

| Field | Value |
|---|---|
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.11 Spare 11 – Bit

| Field | Value |
|---|---|
| Item name | GMS11000 |
| Short description | SPARE_11_BIT |
| Long Description | Spare 11 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |

| Field | Value |
|---|---|
| PFC | 7 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.12 Spare 12 – Bit

| Field | Value |
|---|---|
| Item name | GMS12000 |
| Short description | SPARE_12_BIT |
| Long Description | Spare 12 bits |
| Category flag | All except FDD |

| Field | Value |
|---|---|
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 8 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |

| Field | Value |
|---|---|
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.13 Spare 13 – Bit

| Field | Value |
|---|---|
| Item name | GMS13000 |
| Short description | SPARE_13_BIT |
| Long Description | Spare 13 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 9 |
| Calibration Category | - |
| Units | - |

| Field | Value |
|---|---|
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.14 Spare 14 – Bit

| Field | Value |
|---|---|
| Item name | GMS14000 |
| Short description | SPARE_14_BIT |
| Long Description | Spare 14 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |

| Field | Value |
|---|---|
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 10 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |

| Field | Value |
|---|---|
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.15 Spare 15 – Bit

| Field | Value |
|---|---|
| Item name | GMS15000 |
| Short description | SPARE_15_BIT |
| Long Description | Spare 15 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 11 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |

| Field | Value |
|---|---|
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.1.16 Spare 16 – Bit

| Field | Value |
|---|---|
| Item name | GMS16000 |
| Short description | SPARE_16_BIT |
| Long Description | Spare 16 bits |
| Category flag | All except FDD |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |

| Field | Value |
|---|---|
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 12 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### *3.7.2 Aquisition Parameters ( for OBSW User)*

16 Spare parameters have been created for OBSW users, because of their need of having more then once the same spare parameter (not supper commutated ) inside of the same SCOS TM packet . As SCOS 2000 does not allows this, those 16 spare parameters are not generated by HPSDB on the SCOS /CCS bridge files (but the user can see them on the XML print, and on the HPSDB MMI)

#### 3.7.2.1 OBSW Spare 1 – Bit

| Field | Value |
|---|---|
| Item name | GES01000 |
| Short description | OBSWSPAR_1_BIT |
| Long Description | OBSW Spare 1 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 1 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |

| Field | Value |
|---|---|
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.2 OBSW Spare 2 – Bit

| Field | Value |
|---|---|
| Item name | GES02000 |
| Short description | OBSWSPAR_2_BIT |
| Long Description | OBSW Spare 2 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |

| Field | Value |
|---|---|
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 2 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.3 OBSW Spare 3 – Bit

| Field | Value |
|---|---|
| Item name | GES03000 |
| Short description | OBSWSPAR_3_BIT |
| Long Description | OBSW Spare 3 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 3 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |

| Field | Value |
|---|---|
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.4 OBSW Spare 4 – Bit

| Field | Value |
|---|---|
| Item name | GES04000 |
| Short description | OBSWSPAR_4_BIT |
| Long Description | OBSW Spare 4 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |

| Field | Value |
|---|---|
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 4 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.5 OBSW Spare 5 – Bit

| Field | Value |
|---|---|
| Item name | GES05000 |
| Short description | OBSWSPAR_5_BIT |
| Long Description | OBSW Spare 5 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 5 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |

| Field | Value |
|---|---|
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.6 OBSW Spare 6 – Bit

| Field | Value |
|---|---|
| Item name | GES06000 |
| Short description | OBSWSPAR_6_BIT |
| Long Description | OBSW Spare 6 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |

| Field | Value |
|---|---|
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 6 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.7 OBSW Spare 7 – Bit

| Field | Value |
|---|---|
| Item name | GES07000 |
| Short description | OBSWSPAR_7_BIT |
| Long Description | OBSW Spare 7 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 7 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |

| Field | Value |
|---|---|
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.8 OBSW Spare 8 – Bit

| Field | Value |
|---|---|
| Item name | GES08000 |
| Short description | OBSWSPAR_8_BIT |
| Long Description | OBSW Spare 8 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |

| Field | Value |
|---|---|
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 8 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.9 OBSW Spare 9 – Bit

| Field | Value |
|---|---|
| Item name | GES09000 |
| Short description | OBSWSPAR_9_BIT |
| Long Description | OBSW Spare 9 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 5 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |

| Field | Value |
|---|---|
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.10 OBSW Spare 10 – Bit

| Field | Value |
|---|---|
| Item name | GES10000 |
| Short description | OBSWSPAR_10_BIT |
| Long Description | OBSW Spare 10 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |

| Field | Value |
|---|---|
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 6 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.11 OBSW Spare 11 – Bit

| Field | Value |
|---|---|
| Item name | GES11000 |
| Short description | OBSWSPAR_11_BIT |
| Long Description | OBSW Spare 11 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 7 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |

| Field | Value |
|---|---|
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.12 OBSW Spare 12 – Bit

| Field | Value |
|---|---|
| Item name | GES12000 |
| Short description | OBSWSPAR_12_BIT |
| Long Description | OBSW Spare 12 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |

| Field | Value |
|---|---|
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 8 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.13 OBSW Spare 13 – Bit

| Field | Value |
|---|---|
| Item name | GES13000 |
| Short description | OBSWSPAR_13_BIT |
| Long Description | OBSW Spare 13 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 9 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |

| Field | Value |
|---|---|
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.14 OBSW Spare 14 – Bit

| Field | Value |
|---|---|
| Item name | GES14000 |
| Short description | OBSWSPAR_14_BIT |
| Long Description | OBSW Spare 1 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |

| Field | Value |
|---|---|
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 10 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.15 OBSW Spare 15 – Bit

| Field | Value |
|---|---|
| Item name | GES15000 |
| Short description | OBSWSPAR_15_BIT |
| Long Description | OBSW Spare 15 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 11 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |

| Field | Value |
|---|---|
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### 3.7.2.16 OBSW Spare 16 – Bit

| Field | Value |
|---|---|
| Item name | GES16000 |
| Short description | OBSWSPAR_16_BIT |
| Long Description | OBSW Spare 16 bit |
| Category flag | OBSW |
| Reason of change | Generic Data |
| Parameter Type | Acquisition Parameter |
| On-board Parameter identifier | - |
| Padded width | - |
| Daughter Parameter id | - |
| Daughter Parameter Location | - |
| Related Parameter | - |
| Validity Condition-Parameter identifier | - |

| Field | Value |
|---|---|
| Validity Condition-Raw or engineering value flag | - |
| Validity Condition-Radix | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 12 |
| Calibration Category | - |
| Units | - |
| Calibration curve-Type | - |
| Calibration curve identifier | - |
| Has Limit Calibration | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

### *3.7.3 Command Header Parameters*

#### 3.7.3.1 APID

| Field | Value |
|---|---|
| Item name | GBAPD000 |
| Short description | APID |
| Long Description | Packet APID |
| Reason of change | Generic Data |
| Parameter Type | Command Header Parameter |
| Parameter Type -Type | A |
| Parameter Type -Value | |
| Parameter Type –Raw Radix | D |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 7 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |

| Field | Value |
|---|---|
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.3.2 Sequence Count Source Part

| Field | Value |
|---|---|
| Item name | GBSCT000 |
| Short description | Seq Count - Source |
| Long Description | Sequence Count - Source Part |
| Reason of change | Generic Data |
| Parameter Type | Command Header Parameter |
| Parameter Type -Type | P |
| Parameter Type -Value | |
| Parameter Type –Raw Radix | D |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 3 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |

| Field | Value |
|---|---|
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.3.3 Sequence Count Sequence Part

| Field | Value |
|---|---|
| Item name | GBSCS000 |
| Short description | Seq Count - Seq |
| Long Description | Sequence Count – Sequence Part |
| Reason of change | Generic Data |
| Parameter Type | Command Header Parameter |
| Parameter Type -Type | P |
| Parameter Type -Value | |
| Parameter Type –Raw Radix | D |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 7 |

| Field | Value |
|---|---|
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.3.4 Packet Length

| Field | Value |
|---|---|
| Item name | GBLEN000 |
| Short description | Packet Length |
| Long Description | Packet Length |
| Reason of change | Generic Data |
| Parameter Type | Command Header Parameter |

| Field | Value |
|---|---|
| Parameter Type -Type | P |
| Parameter Type -Value | |
| Parameter Type –Raw Radix | D |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 12 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

| Field | Value |
|---|---|
| Category flag | All except FDD |

### 3.7.3.5 Acknowledgement flags

| Field | Value |
|---|---|
| Item name | GBACK000 |
| Short description | Ack |
| Long Description | Acknowledgement |
| Reason of change | Generic Data |
| Parameter Type | Command Header Parameter |
| Parameter Type -Type | K |
| Parameter Type -Value | |
| Parameter Type –Raw Radix | D |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 4 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |

| Field | Value |
|---|---|
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.3.6 Packet Type

| Field | Value |
|---|---|
| Item name | GBTYP000 |
| Short description | Packet Type |
| Long Description | Packet Type |
| Reason of change | Generic Data |
| Parameter Type | Command Header Parameter |
| Parameter Type -Type | T |
| Parameter Type -Value | |
| Parameter Type –Raw Radix | D |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 8 |
| Calibration Category | - |

| Field | Value |
|---|---|
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.3.7 Packet Subtype

| Field | Value |
|---|---|
| Item name | GBSTY000 |
| Short description | Packet Subtype |
| Long Description | Packet Subtype |
| Reason of change | Generic Data |
| Parameter Type | Command Header Parameter |
| Parameter Type -Type | S |
| Parameter Type -Value | |

| Field | Value |
|---|---|
| Parameter Type –Raw Radix | D |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 8 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### *3.7.4 Command Parameters*

Note please that on HPSDB is possible to include fixed areas on the TC packets, so a spare can be defined as a fixed area, or can be a reference to the following generic command parameters:

#### 3.7.4.1 Spare 1 - Bit

| Field | Value |
|---|---|
| Item name | GPS01000 |
| Short description | SPARE_1_BIT |
| Long Description | Spare 1 bit |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 1 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |

| Field | Value |
|---|---|
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.2 Spare 2 - Bit

| Field | Value |
|---|---|
| Item name | GPS02000 |
| Short description | SPARE_2_BIT |
| Long Description | Spare 2 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |

| Field | Value |
|---|---|
| Binary Conversion | - |
| PTC | 2 |
| PFC | 2 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

#### 3.7.4.3 Spare 3 - Bit

| Field | Value |
|---|---|
| Item name | GPS03000 |
| Short description | SPARE_3_BIT |

| Field | Value |
|---|---|
| Long Description | Spare 3 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 3 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |

| Field | Value |
|---|---|
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

#### 3.7.4.4 Spare 4 - Bit

| Field | Value |
|---|---|
| Item name | GPS04000 |
| Short description | SPARE_4_BIT |
| Long Description | Spare 4 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 4 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |

| Field | Value |
|---|---|
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.5 Spare 5 - Bit

| Field | Value |
|---|---|
| Item name | GPS05000 |
| Short description | SPARE_5_BIT |
| Long Description | Spare 5 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |

| Field | Value |
|---|---|
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 5 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |

| Field | Value |
|---|---|
| Category flag | All except FDD |

### 3.7.4.6 Spare 6 - Bit

| Field | Value |
|---|---|
| Item name | GPS06000 |
| Short description | SPARE_6_BIT |
| Long Description | Spare 6 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 6 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |

| Field | Value |
|---|---|
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

#### 3.7.4.7 Spare 7 - Bit

| Field | Value |
|---|---|
| Item name | GPST0700 |
| Short description | SPARE_7_BIT |
| Long Description | Spare 7 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |

| Field | Value |
|---|---|
| PTC | 2 |
| PFC | 7 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.8 Spare 8 - Bit

| Field | Value |
|---|---|
| Item name | GPS08000 |
| Short description | SPARE_8_BIT |
| Long Description | Spare 8 bits |

| Field | Value |
|---|---|
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 8 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |

| Field | Value |
|---|---|
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.9 Spare 9- Bit

| Field | Value |
|---|---|
| Item name | GPS09000 |
| Short description | SPARE_9_BIT |
| Long Description | Spare 9 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 5 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |

| Field | Value |
|---|---|
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.10 Spare 10 - Bit

| Field | Value |
|---|---|
| Item name | GPS10000 |
| Short description | SPARE_10_BIT |
| Long Description | Spare 10 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |

| Field | Value |
|---|---|
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 6 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.11 Spare 11- Bit

| Field | Value |
|---|---|
| Item name | GPS11000 |
| Short description | SPARE_11_BIT |
| Long Description | Spare 11 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 7 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |

| Field | Value |
|---|---|
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.12 Spare 12- Bit

| Field | Value |
|---|---|
| Item name | GPS12000 |
| Short description | SPARE_12_BIT |
| Long Description | Spare 12 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 8 |
| Calibration Category | - |

| Field | Value |
|---|---|
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.13 Spare 13 - Bit

| Field | Value |
|---|---|
| Item name | GPS13000 |
| Short description | SPARE_13_BIT |
| Long Description | Spare 13 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |

| Field | Value |
|---|---|
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 9 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |

| Field | Value |
|---|---|
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.14 Spare 14 - Bit

| Field | Value |
|---|---|
| Item name | GPS14000 |
| Short description | SPARE_14_BIT |
| Long Description | Spare 14 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 10 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |

| Field | Value |
|---|---|
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.15 Spare 15 - Bit

| Field | Value |
|---|---|
| Item name | GPS15000 |
| Short description | SPARE_15_BIT |
| Long Description | Spare 15 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |

| Field | Value |
|---|---|
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 11 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.16 Spare 16- Bit

| Field | Value |
|---|---|
| Item name | GPS16000 |

| Field | Value |
|---|---|
| Short description | SPARE_16_BIT |
| Long Description | Spare 16 bits |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | D |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 12 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |

| Field | Value |
|---|---|
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.17 Absolute Time-Tag

| Field | Value |
|---|---|
| Item name | GPABS000 |
| Short description | Absolute Time-Tag |
| Long Description | Absolute Time-Tag |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Decimal |
| Parameter Type – Default Value representation | - |
| Parameter Type –Constant or value flag | Value |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 9 |
| PFC | 17 |
| Calibration Category | - |
| Units | - |

| Field | Value |
|---|---|
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.18 Sub-Schedule for TTs

| Field | Value |
|---|---|
| Item name | GPSUB000 |
| Short description | Sub-Schedule for TTs |
| Long Description | Sub-Schedule for TTs |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |

| Field | Value |
|---|---|
| Parameter Type –Raw Radix | Decimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | Value |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 3 |
| PFC | 12 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |

| Field | Value |
|---|---|
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.19 Activity Id

| Field | Value |
|---|---|
| Item name | GPS16000 |
| Short description | Activity Id |
| Long Description | Mandatory but not used in AIT. Forced to 0. |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | Value |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 8 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |

| Field | Value |
|---|---|
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.20 RC Ident

| Field | Value |
|---|---|
| Item name | GPS16000 |
| Short description | RC Ident |
| Long Description | RC Id identify the command to be executed on SCOE (identifies by APID) |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | Value |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |

| Field | Value |
|---|---|
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 8 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### 3.7.4.21 Structure Id Field

| Field | Value |
|---|---|

| Field | Value |
|---|---|
| Item name | GPSTR000 |
| Short description | Structure Id |
| Long Description | Structure Ident Field |
| Reason of change | Generic Data |
| Parameter Type | Command Parameter |
| Parameter Type –Raw Radix | Hexadecimal |
| Parameter Type – Default Value representation | 0 |
| Parameter Type –Constant or value flag | Value |
| Parameter Type –Generic or contant identifier | |
| Validity Condition | - |
| Validity Condition -Parameter identifier | - |
| Validity Condition -Raw or engineering value flag | - |
| Validity Condition -Parameter Value | - |
| Binary Conversion | - |
| PTC | 2 |
| PFC | 16 |
| Calibration Category | - |
| Units | - |
| Default Calibration curve-Type | - |
| Calibration curve identifier | - |
| Ordered list of condition for calibration curve selection | - |
| Order | - |
| Condition parameter | - |
| Condition Raw or engineering flag | - |
| Condition Radix | - |
| Condition value | - |
| Curve Subtype | - |
| Calibration curve identifier | - |
| Limit calibration | - |
| Maximum number of over-limit occurrences acceptable | - |

| Field | Value |
|---|---|
| List of limits | - |
| Order | - |
| Condition Parameter | - |
| Condition Raw or engineering flag | - |
| Condition Parameter value | - |
| Type | - |
| Low Limit | - |
| Hight limit | - |
| Category flag | All except FDD |

### *3.7.5 Parameter group data*

Not identified

### *3.7.6 Parameter set data*

Not identified

### *3.7.7 Parameter value set*

Not identified

### *3.7.8 Parameter range set data*

Not identified

Note : in case generic parameter range set are defined, the S2K identifier shall be provided and shall be equal to the element parameter range set identifier plus 1000.

## 3.8 Calibration Curves

Wainting for thermostors calibration curves inputs.
Note The S2K identifier is equal to element curve identifier inside the element (from fourth to sixth characters) plus 1000.

### *3.8.1 Digital curve data*

In case of one bit digital raw value, the short description of the curve is the label associated to the raw value 1.

The identified generic digital curves are:

#### 3.8.1.1 OFF/ON

0 is ON
1 is is OFF

| Field | Value |
|---|---|
| Curve identifier | G000001000 |
| S2K identifier | 1001 |
| Short description | OFF |
| Long description | 1 is OFF 0 is ON |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | ON |
| Low raw value | 1 |
| High raw value | 1 |
| Status | OFF |

#### 3.8.1.2 ON / OFF

0 is OFF
1 is is ON

| Field | Value |
|---|---|
| Curve identifier | G000002000 |
| S2K identifier | 1002 |
| Short description | ON |

| | |
|---|---|
| Long description | 1 is ON 0 is OFF |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | OFF |
| Low raw value | 1 |
| High raw value | 1 |
| Status | ON |

### 3.8.1.3 NOMINAL / REDUNDANT

0 is REDUNDANT
1 is is NOMINAL

| Field | Value |
|---|---|
| Curve identifier | G000003000 |
| S2K identifier | 1003 |
| Short description | NOMINAL |
| Long description | 1 is NOMINAL 0 is REDUNDANT |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |

| | |
|---|---|
| Status | REDUNDANT |
| Low raw value | 1 |
| High raw value | 1 |
| Status | NOMINAL |

### 3.8.1.4 REDUNDANT / NOMINAL

0 is NOMINAL
1 is is REDUNDANT

| Field | Value |
|---|---|
| Curve identifier | G000004000 |
| S2K identifier | 1004 |
| Short description | REDUNDANT |
| Long description | 1 is REDUNDANT 0 is NOMINAL |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | NOMINAL |
| Low raw value | 1 |
| High raw value | 1 |
| Status | REDUNDANT |

### 3.8.1.5 OK / FAULT

0 is FAULT
1 is is OK

| Field | Value |
|---|---|
| Curve identifier | G000005000 |
| S2K identifier | 1005 |
| Short description | OK |
| Long description | 1 is OK 0 is FAULT |
| Type (analogue or digital) | Digital |

| | |
|---|---|
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | FAULT |
| Low raw value | 1 |
| High raw value | 1 |
| Status | OK |

### 3.8.1.6 FAULT / OK

0 is OK
1 is is FAULT

| Field | Value |
|---|---|
| Curve identifier | G000006000 |
| S2K identifier | 1006 |
| Short description | FAULT |
| Long description | 1 is FAULT 0 is OK |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | OK |
| Low raw value | 1 |
| High raw value | 1 |

| | |
|---|---|
| Status | FAULT |

### 3.8.1.7 ACTIVE /NOTACTIVE

0 is NOTACTIVE
1 is is ACTIVE

| Field | Value |
|---|---|
| Curve identifier | G000007000 |
| S2K | 1007 |
| Short description | ACTIVE |
| Long description | 1 is ACTIVE 0 is NOTACTIVE |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | NOTACTIVE |
| Low raw value | 1 |
| High raw value | 1 |
| Status | ACTIVE |

### 3.8.1.8 NOTACTIVE/ACTIVE

0 is ACTIVE
1 is is NOTACTIVE

| Field | Value |
|---|---|
| Curve identifier | G000008000 |
| S2K identifier | 1008 |
| Short description | NOTACTIVE |
| Long description | 1 is NOTACTIVE 0 is ACTIVE |
| Type (analogue or digital) | Digital |

| | |
|---|---|
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | ACTIVE |
| Low raw value | 1 |
| High raw value | 1 |
| Status | NOTACTIVE |

### 3.8.1.9 CLOSE/OPEN

0 is OPEN
1 is is CLOSE

| Field | Value |
|---|---|
| Curve identifier | G000009000 |
| S2K identifier | 1009 |
| Short description | CLOSE |
| Long description | 1 is CLOSE 0 is OPEN |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | OPEN |
| Low raw value | 1 |

| | |
|---|---|
| High raw value | 1 |
| Status | CLOSE |

### 3.8.1.10 OPEN/CLOSE

0 is CLOSE
1 is is OPEN

| Field | Value |
|---|---|
| Curve identifier | G000010000 |
| S2K identifier | 1010 |
| Short description | OPEN |
| Long description | 1 is OPEN 0 is CLOSE |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | CLOSE |
| Low raw value | 1 |
| High raw value | 1 |
| Status | OPEN |

### 3.8.1.11 TRUE/FALSE

0 is FALSE
1 is TRUE

| Field | Value |
|---|---|
| Curve identifier | G000013000 |
| S2K identifier | 1013 |
| Short description | TRUE |
| Long description | 1 is TRUE 0 is FALSE |
| Type (analogue or digital) | Digital |

| | |
|---|---|
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | FALSE |
| Low raw value | 1 |
| High raw value | 1 |
| Status | TRUE |

### 3.8.1.12 FALSE/TRUE

0 is TRUE
1 is FALSE

| Field | Value |
|---|---|
| Curve identifier | G000024000 |
| S2K identifier | 1024 |
| Short description | FALSE |
| Long description | 1 is FALSE 0 is TRUE |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | TRUE |
| Low raw value | 1 |
| High raw value | 1 |

| | |
|---|---|
| Status | FALSE |

### 3.8.1.13 BUS_B/BUS_A

0 is BUS_A
1 is BUS_B

| Field | Value |
|---|---|
| Curve identifier | G000015000 |
| S2K identifier | 1015 |
| Short description | BUS_B |
| Long description | 1 is BUS_B 0 is BUS_A |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | BUS_A |
| Low raw value | 1 |
| High raw value | 1 |
| Status | BUS_B |

### 3.8.1.14 BUS_A/BUS_B

0 is BUS_B
1 is BUS_A

| Field | Value |
|---|---|
| Curve identifier | G000025000 |
| S2K identifier | 1025 |
| Short description | BUS_A |
| Long description | 1 is BUS_A 0 is BUS_B |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |

| | |
|---|---|
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | BUS_B |
| Low raw value | 1 |
| High raw value | 1 |
| Status | BUS_A |

### 3.8.1.15 REMOTE/LOCAL

0 is REMOTE
1 is LOCAL

| Field | Value |
|---|---|
| Curve identifier | G000016000 |
| S2K identifier | 1016 |
| Short description | REMOTE |
| Long description | 1 is REMOTE 0 is LOCAL |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | LOCAL |
| Low raw value | 1 |
| High raw value | 1 |
| Status | REMOTE |

### 3.8.1.16 LOCAL/REMOTE

0 is REMOTE
1 is LOCAL

| Field | Value |
|---|---|
| Curve identifier | G000026000 |
| S2K identifier | 1026 |
| Short description | LOCAL |
| Long description | 1 is LOCAL 0 is REMOTE |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | REMOTE |
| Low raw value | 1 |
| High raw value | 1 |
| Status | LOCAL |

### 3.8.1.17 ENABLED/DISABLED

0 is DISABLED
1 is ENABLED

| Field | Value |
|---|---|
| Curve identifier | G000017000 |
| S2K identifier | 1017 |
| Short description | ENABLED |
| Long description | 1 is ENABLED 0 is DISABLED |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |

| | |
|---|---|
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | DISABLED |
| Low raw value | 1 |
| High raw value | 1 |
| Status | ENABLED |

### 3.8.1.18 DISABLED/ ENABLED

0 is ENABLED
1 is DISABLED

| Field | Value |
|---|---|
| Curve identifier | G000027000 |
| S2K identifier | 1027 |
| Short description | DISABLED |
| Long description | 1 is DISABLED 0 is ENABLED |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | ENABLED |
| Low raw value | 1 |
| High raw value | 1 |
| Status | DISABLED |

### 3.8.1.19 STOP_RUN_PAUSE

0 is STOP
1 is RUN

2 IS PAUSE

| Field | Value |
|---|---|
| Curve identifier | G000018000 |
| S2K identifier | 1018 |
| Short description | STOP_RUN_PAUSE |
| Long description | 0 is STOP<br>1 is RUN<br>2 IS PAUSE |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | STOP |
| Low raw value | 1 |
| High raw value | 1 |
| Status | RUN |
| Low raw value | 2 |
| High raw value | 2 |
| Status | PAUSE |

### 3.8.1.20 STATUS

0 is CONFIG
1 is IDLE
2 is OPERATIONAL
3 is ERROR

| Field | Value |
|---|---|
| Curve identifier | G000019000 |
| S2K identifier | 1019 |
| Short description | STATUS |
| Long description | 0 is CONFIG<br>1 is IDLE<br>2 is OPERATIONAL<br>3 is ERROR |

| | |
|---|---|
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | CONFIG |
| Low raw value | 1 |
| High raw value | 1 |
| Status | IDLE |
| Low raw value | 2 |
| High raw value | 2 |
| Status | OPERATIONAL |
| Low raw value | 3 |
| High raw value | 3 |
| Status | ERROR |

### 3.8.1.21 PASSED/FAILED

0 is PASSED
1 is FAILED

| Field | Value |
|---|---|
| Curve identifier | G000020000 |
| S2K identifier | 1020 |
| Short description | PASSED |
| Long description | 1 is PASSED 0 is FAILED |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | FAILED |
| Low raw value | 1 |
| High raw value | 1 |
| Status | PASSED |

### 3.8.1.22 FAILED/ PASSED

0 is FAILED
1 is PASSED

| Field | Value |
|---|---|
| Curve identifier | G000028000 |
| S2K identifier | 1028 |
| Short description | FAILED |
| Long description | 1 is FAILED 0 is PASSED |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | PASSED |
| Low raw value | 1 |
| High raw value | 1 |
| Status | FAILED |

### 3.8.1.23 ONLINE/OFFLINE

0 is OFFLINE
1 is ONLINE

| Field | Value |
|---|---|
| Curve identifier | G000021000 |

| | |
|---|---|
| S2K identifier | 1021 |
| Short description | ONLINE |
| Long description | 1 is ONLINE 0 is OFFLINE |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | OFFLINE |
| Low raw value | 1 |
| High raw value | 1 |
| Status | ONLINE |

### 3.8.1.24 OFFLINE/ONLINE

0 is ONLINE
1 is OFFLINE

| Field | Value |
|---|---|
| Curve identifier | G000029000 |
| S2K identifier | 1029 |
| Short description | OFFLINE |
| Long description | 1 is OFFLINE 0 is ONLINE |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |

| | |
|---|---|
| High raw value | 0 |
| Status | ONLINE |
| Low raw value | 1 |
| High raw value | 1 |
| Status | OFFLINE |

### 3.8.1.25 RUNNING/NOT_RUNNING

0 is NOT_RUNNING
1 is RUNNING

| Field | Value |
|---|---|
| Curve identifier | G000022000 |
| S2K identifier | 1022 |
| Short description | RUNNING |
| Long description | 1 is RUNNING 0 is NOT_RUNNING |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | NOT_RUNNING |
| Low raw value | 1 |
| High raw value | 1 |
| Status | RUNNING |

### 3.8.1.26 NOT_RUNNING/RUNNING

0 is RUNNING
1 is NOT RUNNING

| Field | Value |
|---|---|
| Curve identifier | G000030000 |
| S2K identifier | 1030 |

| | |
|---|---|
| Short description | NOT_RUNNING |
| Long description | 1 is NOT_RUNNING 0 is RUNNING |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | RUNNING |
| Low raw value | 1 |
| High raw value | 1 |
| Status | NOT_RUNNING |

### 3.8.1.27 B/A

0 is A
1 is B

| Field | Value |
|---|---|
| Curve identifier | G000023000 |
| S2K identifier | 1023 |
| Short description | B |
| Long description | 1 is B 0 is A |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |

| | |
|---|---|
| High raw value | 0 |
| Status | A |
| Low raw value | 1 |
| High raw value | 1 |
| Status | B |

### 3.8.1.28 A/B

0 is B
1 is A

| Field | Value |
|---|---|
| Curve identifier | G000031000 |
| S2K identifier | 1031 |
| Short description | A |
| Long description | 1 is A 0 is B |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | B |
| Low raw value | 1 |
| High raw value | 1 |
| Status | A |

### 3.8.1.29 Tripped/OK

0 is OK
1 is Tripped

| Field | Value |
|---|---|
| Curve identifier | G000014000 |
| S2K identifier | 1014 |

| | |
|---|---|
| Short description | Tripped |
| Long description | 1 is tripped 0 is OK |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | OK |
| Low raw value | 1 |
| High raw value | 1 |
| Status | Tripped |

### 3.8.1.30 GO/NOGO

0 is NOGO
1 is GO

| Field | Value |
|---|---|
| Curve identifier | G000032000 |
| S2K identifier | 1032 |
| Short description | GO |
| Long description | 1 is GO 0 is NOGO |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |

| | |
|---|---|
| Status | NOGO |
| Low raw value | 1 |
| High raw value | 1 |
| Status | GO |

### 3.8.1.31 NOGO/GO

0 is GO
1 is NOGO

| Field | Value |
|---|---|
| Curve identifier | G000033000 |
| S2K identifier | 1033 |
| Short description | NOGO |
| Long description | 1 is NOGO 0 is GO |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | GO |
| Low raw value | 1 |
| High raw value | 1 |
| Status | NOGO |

### 3.8.1.32 SET/RESET

0 is RESET
1 is SET

| Field | Value |
|---|---|
| Curve identifier | G000034000 |
| S2K identifier | 1034 |
| Short description | SET |

| | |
|---|---|
| Long description | 1 is SET 0 is RESET |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |
| Status | RESET |
| Low raw value | 1 |
| High raw value | 1 |
| Status | SET |

### 3.8.1.33 RESET/SET

0 is SET
1 is RESET

| Field | Value |
|---|---|
| Curve identifier | G000035000 |
| S2K identifier | 1035 |
| Short description | RESET |
| Long description | 1 is RESET 0 is SET |
| Type (analogue or digital) | Digital |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | NULL |
| Unit | NULL |
| TM or TC or both flag | Both flag |
| Raw format | Unsigned integer |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| Low raw value | 0 |
| High raw value | 0 |

| Status | SET |
|---|---|
| Low raw value | 1 |
| High raw value | 1 |
| Status | RESET |

### *3.8.2 Discrete Analogue curve*

Not identified

### *3.8.3 Logarithm curve equation data*

Not identified

### *3.8.4 Polynomial Curves*

3.8.4.1 Thermistor Type GB42

This curve was been calculated using the Resistance Temperature Relationship Table for Thermistor type GB42 on Annex 1.

| Field | Value |
|---|---|
| Curve identifier | G000011000 |
| S2K identifier | 1011 |
| Short description | Curve_GB42 |
| Long description | This curve was been calculated using the Resistance Temperature Relationship Table for Thermistor type GB42 see annex, the range [-40,+85ºC] is specify on the GDIR (version 4.1) H-P-1-ASPI-SP-0027 RD2 |
| Type (analogue or digital) | Analogue |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | Polynomial |
| Unit | Celsius degree |
| TM or TC or both flag | Both flag |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| a0 | 39591.1 |
| a1 | -2075.9885 |
| a2 | 76.196331 |
| a3 | -1.3738253 |
| a4 | 0.0084341711 |

#### 3.8.4.2 Thermistor for Platinum Probe 2k 118MF

This curve was been calculated using the Resistance Temperature Relationship Table for Platinum Probe 2k 118MF on Annex 2.

| Field | Value |
|---|---|
| Curve identifier | G000012000 |
| S2K identifier | 1012 |
| Short description | Curve_118MF |
| Long description | This curve was been calculated using the Resistance Temperature Relationship Table for Platinum Probe 2k 118MF see annex. |
| Type (analogue or digital) | Analogue |
| Sub-type for analogue type (Discrete or polynomial or logarithm) | Polynomial |
| Unit | Celsius degree |
| TM or TC or both flag | Both flag |
| Category Flag | All except FDD |

| Field | Value |
|---|---|
| a0 | 2006.6819 |
| a1 | 7.6518368 |
| a2 | -0.0038691002 |
| a3 | 2.5054358e-005 |
| a4 | 1.4419967e-007 |

## 3.9 Displays

### *3.9.1 Alphanumeric display data*

Not identified

### *3.9.2 Graphic display data*

Not identified

### *3.9.3 Scrolling Display*

Not identified

### *3.9.4 Variable SCOS packet display data*

Not identified

## 3.10 Constants

### *3.10.1 Constants*

Not identified

# 4. UPDATING GENERIC BOX CONTENTS PROCESS

The contents of a generic box has been defined taking into accound the present knowledge of spacecraf development.
It is foreseen to keep the contents of generic box in line with the HPSDB users needs. For this purpose, HPSDB users are invited to submit to HPSDB manager approval updates of generic box contents with general purpose scope.

# 5. ANNEX 1

| | |
|---|---|
| -40 | 371300 |
| -39 | 349700 |
| -38 | 329400 |
| -37 | 310500 |
| -36 | 292800 |
| -35 | 276200 |
| -34 | 260700 |
| -33 | 246000 |
| -32 | 232400 |
| -31 | 219500 |
| -30 | 207500 |
| -29 | 196100 |
| -28 | 185400 |
| -27 | 175500 |
| -26 | 166100 |
| -25 | 157200 |
| -24 | 148800 |
| -23 | 141000 |
| -22 | 133600 |
| -21 | 126700 |
| -20 | 120100 |
| -19 | 114000 |
| -18 | 108200 |
| -17 | 102700 |
| -16 | 97490 |
| -15 | 92600 |
| -14 | 87980 |
| -13 | 83630 |
| -12 | 79520 |
| -11 | 75620 |
| -10 | 71940 |
| -9 | 68640 |
| -8 | 65160 |
| -7 | 62060 |
| -6 | 59100 |
| -5 | 56310 |
| -4 | 53670 |
| -3 | 51170 |
| -2 | 48800 |
| -1 | 46550 |
| 0 | 44420 |
| 1 | 42390 |

| | |
|---|---|
| 2 | 40490 |
| 3 | 38660 |
| 4 | 36930 |
| 5 | 35300 |
| 6 | 33740 |
| 7 | 32250 |
| 8 | 30840 |
| 9 | 29510 |
| 10 | 28230 |
| 11 | 27020 |
| 12 | 25860 |
| 13 | 24770 |
| 14 | 23720 |
| 15 | 22730 |
| 16 | 21780 |
| 17 | 20870 |
| 18 | 20010 |
| 19 | 19190 |
| 20 | 18410 |
| 21 | 17660 |
| 22 | 16950 |
| 23 | 16280 |
| 24 | 15620 |
| 25 | 15000 |
| 26 | 14410 |
| 27 | 13840 |
| 28 | 13310 |
| 29 | 12790 |
| 30 | 12300 |
| 31 | 11820 |
| 32 | 11370 |
| 33 | 10940 |
| 34 | 10530 |
| 35 | 10130 |
| 36 | 9756 |
| 37 | 9393 |
| 38 | 9047 |
| 39 | 8715 |
| 40 | 8397 |
| 41 | 8093 |
| 42 | 7800 |
| 43 | 7521 |
| 44 | 7253 |

| | |
|---|---|
| 45 | 6995 |
| 46 | 6747 |
| 47 | 6510 |
| 48 | 6282 |
| 49 | 6065 |
| 50 | 5855 |
| 51 | 5654 |
| 52 | 5460 |
| 53 | 5274 |
| 54 | 5096 |
| 55 | 4923 |
| 56 | 4758 |
| 57 | 4599 |
| 58 | 4448 |
| 59 | 4301 |
| 60 | 4160 |
| 61 | 4025 |
| 62 | 3894 |
| 63 | 3768 |
| 64 | 3647 |
| 65 | 3531 |
| 66 | 3419 |
| 67 | 3311 |
| 68 | 3206 |
| 69 | 3105 |
| 70 | 3009 |
| 71 | 2916 |
| 72 | 2826 |
| 73 | 2739 |
| 74 | 2657 |
| 75 | 2576 |
| 76 | 2498 |
| 77 | 2423 |
| 78 | 2351 |
| 79 | 2280 |
| 80 | 2213 |
| 81 | 2148 |
| 82 | 2085 |
| 83 | 2024 |
| 84 | 1965 |
| 85 | 1908 |

**Annex Table 1 - Resistance Temperature Relationship Table for Thermistor type GB42**

**(See RD2 and RD3)**

# 6. ANNEX 2

| Temp (ºC) | P.P. Resistance (2000 OHMS) |
|---|---|
| -260 | 5,41 |
| -240 | 50,43 |
| -220 | 179,5 |
| -200 | 345,62 |
| -180 | 519,4 |
| -160 | 692,06 |
| -140 | 862,06 |
| -120 | 1029,62 |
| -100 | 1195,12 |
| -80 | 1358,89 |
| -60 | 1521,16 |
| -40 | 1682,04 |
| -20 | 1841,64 |
| 0 | 2000 |
| 20 | 2157,23 |
| 40 | 2313,56 |
| 60 | 2468,99 |
| 80 | 2623,54 |
| 100 | 2777,2 |
| 120 | 2929,98 |

**Annex Table 2 - Resistance Temperature Relationship Table for Platinum Probe 2k 118MF**

**(see RD4)**

# 7. ANNEX 3

**END OF THE DOCUMENT**