

**HERSCHEL / PLANCK**  
**CDMU DFE TM/TC Services**  
**Product Code:**  
**3A2200**

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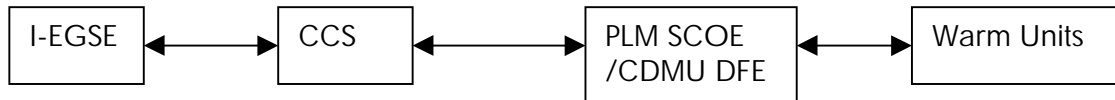
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## 1. INTRODUCTION

This document describes the TM/TC Services available for the warm units during the H/P PLM Tests.

The Test Set up is the following:



As the CDMU DFE does not completely simulate the CDMU Behaviour, the goal of this document is to summarize what TM/TC Services will be available during the tests.

## 2. APPLICABLE AND REFERENCE DOCUMENTS

### 2.1 Applicable Documents

- [AD1] H-P-1-ASPI-SP-0045 EGSE General Requirement Specification
- [AD2] H-P-1-ASPI-IS-0121 EGSE INTERFACE Requirements Specification

### 2.2 Reference Documents

- [RD1] SCI-PT-ICD-07527 Packet Structure Interface Control Document
- [RD2] H-P-ASP-MN-2708 Questions/Open Points for CDMU DFE
- [RD3] H-P-SAT-DD-1002 CDMU DFE System Design Description
- [RD3] H-P-MI-AI-225 SSBV Progress Meeting 2

### 3. TM/TC SERVICES AVAILABLE

#### 3.1 TM/TC Services Table

Here are the available Services available in the CDMU DFE:

Service Number	Description	Available for TC	Available for TM	Covered Sub Services or CCS
1	TC verification	N/A	OK	1-1, 1-2
2	Device Command Distribution Service	Not Supplied	N/A	
3	Housekeeping and Diagnostic Data Reporting	Not Supplied *	Not Supplied *	
4	Not Used	N/A	N/A	
5	Event Reporting	Not Supplied	Not Supplied	CCS Receives TM packet
6	Memory Management	Not Supplied	OK (like 1)	1-1, 1-2 CCS Receives TM packets and routes them to I-EGSE
7	Not Used	N/A	N/A	
8	Function Management	Not Supplied	Not Supplied	
9	Time Management Service	OK	Not Supplied	9-3, 9-4, 9-5
10	Not Used	N/A	N/A	
11	On-board Operations Scheduling Service	Not Supplied	Not Supplied	Covered by CCS TCL Test Sequences
12	On-board Monitoring Service	Not Supplied	Not Supplied	
13	Not Used	N/A	N/A	
14	Packet Transmission Control Service	Not Supplied	Not Supplied	
15	On-board Storage and Retrieval Service	Not Supplied	Not Supplied	
16	On-board Traffic Management	Not Supplied	Not Supplied	
17	Test Service	OK	OK	(17-1, 17-2) default
18	On-board Control Procedure Service	Not Supplied	Not Supplied	Covered by CCS TCL Test Sequences
19	Event/Action Service	Not Supplied	Not Supplied	Covered by CCS TCL Test Sequences
20	Information Distribution CDMS	Not Supplied	Not Supplied	CCS Receives TM packet and routes it to I-EGSE
21	Science Data Transfer Service	N/A	Not Supplied	CCS Receives TM packet and routes it to I-EGSE
22	Not Used	N/A	N/A	

\* Note: Service 3 can be sent to CDMU DFE for Instruments Packet update but not for CDMU DFE's packet update.

NB: "Not Supplied" means: not supplied by CDMU DFE but supplied by CCS (CDMU DFE acts like a mail box transferring messages)

### 3.2 TM/TC Services covered by the CDMU DFE

- Any TM message received by CDMU DFE (i.e. any TM service) is put into a PIPE message (PIPE trailer + PIPE Body Message). Then it is sent to CCS and to Instruments EGSE Connected onto the CCS LAN.
- The only TC service explicitly simulated by CDMU DFE are services:
  - 1,
  - 9 (supplied services are 9.3, 9.4, 9.5 ; Services 9.6, 9.7 and 9.9 are NOT supplied),
  - 17.
- Other services are NOT implemented in the CDMU DFE Software.
- TC Services that are not available on CDMU DFE might be covered by CCS Functions. (for instance time tagged TC are generated via a CCS dedicated test sequence)

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