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VERY LARGE TELESCOPE

Configuration Item Data List for the PRIMA Metrology System

Doc. No.: VLT-TRE-ESO-15730-2995

Issue: 3

Date: 30.11.2012

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Released:

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CHANGE RECORD

ISSUE	DATE	SECTION/PARA. AFFECTED	REASON/INITIATION DOCUMENTS/REMARKS
Draft	03/11/03	All	Submitted to PDR board
1	12/01/04	Section 3	First issue
2	02/04/08	All	Issue for PRIMA PAE
3	30.11.12	All	Issue for handover of PRIMET to Paranal Instrumentation



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1 Scope

This document contains the lists of documents related to the PRIMA Metrology Project.



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2 Specification documents

Table 1

Document number	Issue	Issue date	Title
VLT-SPE-ESO-15730-2211	1	Oct - 2000	Technical Specifications for the PRIMA Metrology System

3 List of documents

Table 2 contains all the documents produced and archived for the PRIMA Metrology System project (memoranda are excluded).

Color coding of Table 2:

- **Red:** Obsolete (due to change of design and or implementation for example) or superseded documents. These documents are unlikely to be updated and are only shown for completeness.
- **Orange:** out-dated documents, which are still relevant to the present status of the system but that need to be updated.
- **Green:** documents relevant to the present status of the system that are up to date or in their final version (test reports for example).

Table 2

Document number	Issue	Issue date	Title
15730 Metrology System			
VLT-TRE-IMT-15700-0001	1	02/2002	PRIMA Metrology Rider Study
VLT-PLA-ESO-15730-2715	1	01/2004	PRIMA Metrology Project Plan
VLT-TRE-ESO-15730-2827	1	04/07/2002	PRIMA Metrology Test Campaign 27/4/02 to 5/5/02
VLT-LIS-ESO-15730-2995	3	30/11/2012	Configuration Item Data List for the PRIMA Metrology System
VLT-ICD-ESO-15730-2999	1	12/09/2003	VLTI PRIMA – Interface Control Document between the Electro-mechanical Hardware and the Control Software of the Metrology System ¹

¹ : Superseded by VLT-TRE-ESO-15735-2963



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VLT-TRE-ESO-15730-3000	2	02/04/2008	Design Description of the PRIMA Metrology System ²
VLT-PLA-ESO-15730-3175	1	26/04/2008	Alignment Plan for the PRIMA Metrology System
VLT-ICD-ESO-15730-2922	3	08/12/2003	VLTI PRIMA Interface Control Document between the Metrology System and the AT Star Separator
VLT-TRE-ESO-15730-4546	1	02/04/2008	PRIMA Metrology safety and reliability analysis
VLT-TRE-ESO-15730-4042	1	02/04/2008	Metrology Test Report (AIV Garching)
VLT-TRE-ESO-15730-4637	1	22/08/2008	PRIMA Metrology AIV report Part II
VLT-TRE-ESO-15730-4653	1	14/11/2008	PRIMA Metrology AIV-COM1 16-26/10/2008
VLT-TRE-ESO-15730-4674	1	09/12/2008	PRIMA Metrology Com2 technical report 19-29/11/2008
VLT-TRE-ESO-15730-4747	1	18/02/2009	PRIMA Metrology COM3 Technical report 28/1 to 6/2 2009
VLT-TRE-ESO-15730-4781	1	24/4/2009	Prima Metrology Commissioning 4 (COM4) Technical Report 24-31 March 2009
VLT-TRE-ESO-15730-4974	2	04/06/2010	PRIMA Metrology COM6 19-28 July 2009
VLT-TRE-ESO-15730-XXXX	draft	Nov.2010	Prima Metrology 8th Technical Report 1-10 Nov.2010 (as part of PRIMA COM13)
VLT-TRE-ESO-15730-5387	1	21/3/2011	Prima Metrology 9th Technical Report 22/1 to 2/2/2011 (as part of PRIMA COM14)
VLT-TRE-ESO-15730-5381	1	27/7/2011	Prima Metrology 10th Technical Report 5/7 to 14/7/2011 (as part of PRIMA ACOM1)
15731 Light Source			
VLT-TRE-ESO-15731-2868	1	06/2002	Feasibility Study for the frequency stabilization of the PRIMA Metrology laser ³
VLT-SPE-ESO-15731-2852	1	01/2003	Technical Specifications and Statement of Work for the laser assembly of the PRIMA Metrology System
VLT-TRE-ESO-15731-3065	1	08/2003	Characterization of the performance of PPKTP for the second harmonic generation of a 1319 nm Nd-YAG laser

² : Contains design choices still relevant to present system but also outdated information

³ : For final implementation please refer to VLT-TRE-ESO-15731-3884



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VLT-TRE-ESO-15731-3064	2	14/10/2003	Characterization of iodine transitions around 659.5 nm
VLT-SPE-ESO-15731-3140	1	22/09/2003	Technical specifications for the Iodine Cell of the PRIMA Metrology laser assembly
VLT-TRE-IMT-15731-3154	1	08/10/2003	Design of the laser assembly of the PRIMA Metrology System ⁴
VLT-SPE-ESO-15731-2920	1	10/2002	Technical Specifications for the Fiber Couple Unit of the PRIMA Metrology
VLT-TRE-ESO-15731-3884	1	26/06/2006	Test of the laser frequency stabilization system of the PRIMA Metrology System
15732 Beam Launcher/ Combiner			
VLT-SPE-ESO-15732-3799	1	05/07/2007	Specifications for high sensitive 4-quadrant detectors for the PRIMA Metrology System
VLT-TRE-ESO-15732-4087	1	02/04/2008	Design of the Pupil Tracker for PRIMET
VLT-TRE-ESO-15732-4542	1	01/03/2007	Performance of the Metrology Pupil tracking measured on STS#AT1 in Garching
15733 End Points			
VLT-TRE-TNO-15710-0001	2.0	29/03/2004	Star Separator Design and Analysis Report
VLT-SPE-ESO-15733-2697	1	20/10/2007	Technical Specifications and Statement of work for the retro-reflector of the PRIMA Metrology. Part II: Refractive design for the UT
VLT-TRE-ESO-15733-4420		18/08/2008	VLT-TRE-ESO-15733-4420-iss1-Retro-reflector for the PRIMA Metrology. Part II Refractive Optical design for the UT
15734 Phase Meter			
VLT-SPE-ESO-15734-2921	1	12/2002	Technical Specifications and Statement of Work for the Design of the Phase Meter of the PRIMA Metrology System
VLT-TRE-IMT-15734-3002	3	28/08/2003	Design of the Phase Meter of the PRIMA Metrology System ⁵
VLT-SPE-ESO-15734-3049	1	05/2003	Technical Specification and Statement of work for the Manufacturing and Test of the

⁴ : Superseded by VLT-TRE-ESO-15731-3884

⁵ :originally Composed of two files, the document in a first file and the appendices in a second. Those documents are merged in the pdf version included in the data package.



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			Phase Meter of the PRIMA Metrology System
VLT-TRE-IMT-15734-3726	1	20/07/2005	As-built Phase Meter configuration for the PRIMA Metrology System ⁶
VLT-MAN-ESO-15734-4535	2	30/11/2012	Modifications of the phasemeter firmware since the delivery of the as-built documentation
15735 Control Hardware			
VLT-TRE-ESO-15735-2963	2	03/04/2008	PRIMA Metrology Control Electronics
VLT-TRE-ESO-15735-4544	Draft	01/04/2008	Design of the PRIMA Metrology Interlock System Technical Manual ⁷
VLT-PLA-ESO-15735-4557	1	21/04/2008	PRIMA Metrology Laser Interlock System Acceptance Test
15736 Control Software			
VLT-SPE-ESO-15736-3384	3	08/12/2010	VLT PRIMA Metrology Control software – Detailed Design Description
VLT-SPE-ESO-15736-3899	3	30/11/2012	Specification for the PRIMA Metrology data files, data logging and algorithms
VLT-TRE-ESO-15736-4544	1	02/04/2008	Operation scenario for PRIMET
VLT-MAN-ESO-15736-4547	2	08/12/2010	PRIMA Metrology Control Software User Manual

4 Drawing list

5 Product codes

The product codes of the PRIMA Metrology are defines in the Project plan (VLT-PLA-ESO-15730-2715) and are shown below for completeness.

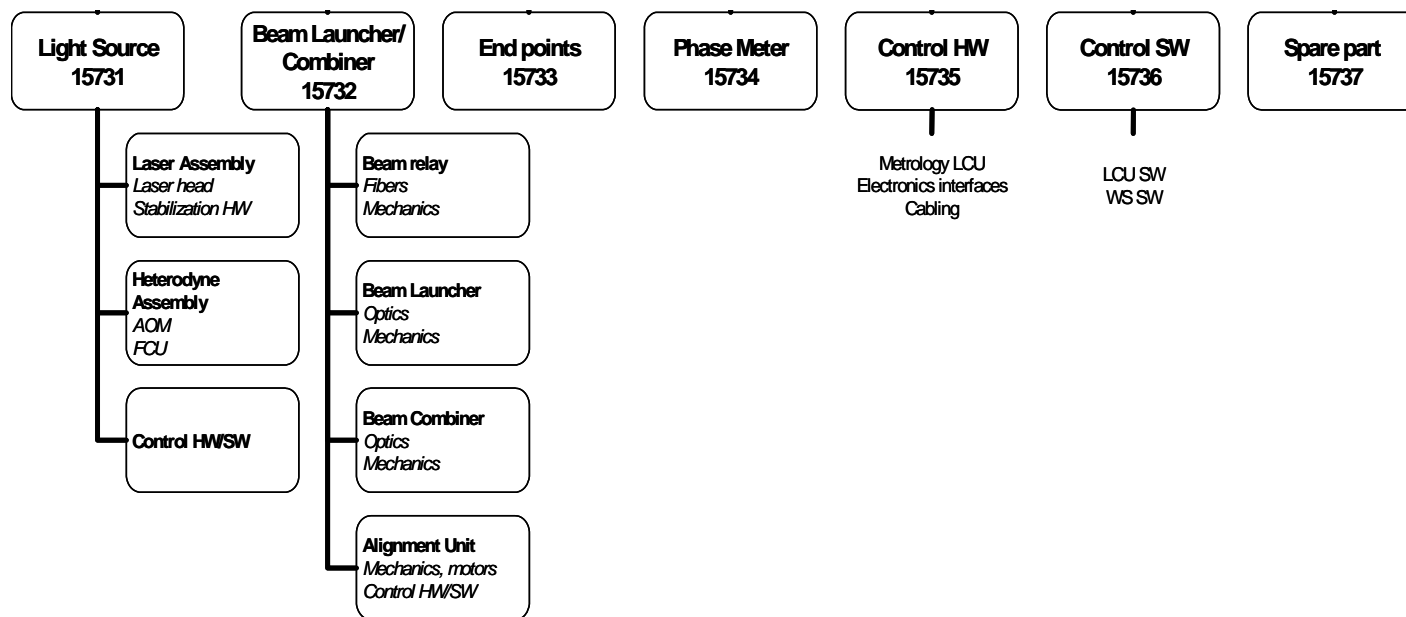
⁶ : Important modifications are described in VLT-MAN-ESO-15734-4535

⁷ : Composed of two files, the document in a first file and the appendices in a second . Those documents are merged in the pdf version included in the data package.



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6 Electronic versions of the documents

The documents of the PRIMA Metrology Project are available under: \\ads-fs1.ads.eso.org\shared\TSD\PRIMA Metrology\15730 Project docs-data package\data package\CIDL dec2012

Electronic Archive:

- under : “15732 beam launcher Project Doc” Quadcell electronic archive containing all wiring diagrams QUADDET71122.zip
- under “15734 Phase Meter” Firmware of the phase meter (see description in VLT-MAN-ESO-15734-4535, Modifications of the phasemeter firmware)
- under “15735 project docs control HW”: Mechanics and PCB layouts Archive for the Interlock system firmware and layout

The above mentioned CIDL dec2012 folder also contains the Matlab routines for processing the engineering files collected by the various PRIMET sub-systems.