



**Atacama
Large
Millimeter
Array**

H-MASER Installation Workmanship Inspection Report

ALMA-05.11.21.90-0001-A-REP

2014-08-14

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Change Record

Revision	Date	Affected Paragraphs(s)	Reason/Initiation/Remarks
A	2014-08-2014	All	Initial draft



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1 INTRODUCTION

1.1 Purpose

Workmanship inspection is a process to evaluate the quality level of manufacturing and assembly process used by supplier to obtain the finished product and that may interfere with the acceptability of the unit for next process.

1.2 Safety

Although some check points must be performed with energy, it is recommended that the inspection has to be performed without energy present (this is a must for the HV elements inspection).

1.3 Applicable Documents List (ADL)

The following documents of the exact issue shown are applicable. In the event of conflict between the documents referenced herein and the present document, the terms of this document shall be considered as superseding requirements.

No.	Document Title	ALMA Doc. Number
AD-1	ALMA Reviews Definitions, Guidelines and Procedures	ALMA-80.09.00.00-001-D-PLA
AD-2	Non Conformance Procedure	ALMA-19.00.00.02-001-A-PRO (TBD)

1.4 Abbreviations and Acronyms



A limited set of acronyms is given below.

AD	Applicable Document
ALMA	Atacama Large Millimeter Array
PA	Product Assurance

1.5 Type of defects

Defect Classification	Description	Abbreviation
Critical	A defect that judgment and experience indicate is likely to result in hazardous or unsafe conditions for individuals, units or products.	A
Major	A defect that is likely to result in failure or to reduce materially the usability of the unit of product for its intended purpose.	B
Minor	A defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.	C
Comment	Not a defect, but a weakness that may diverge in a defect.	D

1.6 Nomenclature

Defect ID	Description
DF01	Unit defect.
	Defected product/item.
	Accepted product/item.
✓	In conformance Inspected Item
✘	No conformance Inspected item

1.7 Status

Status	Description
Open	Defect will be fixed in the next planned release or defect has not yet been reviewed
Closed	A related item has been fixed or resolved



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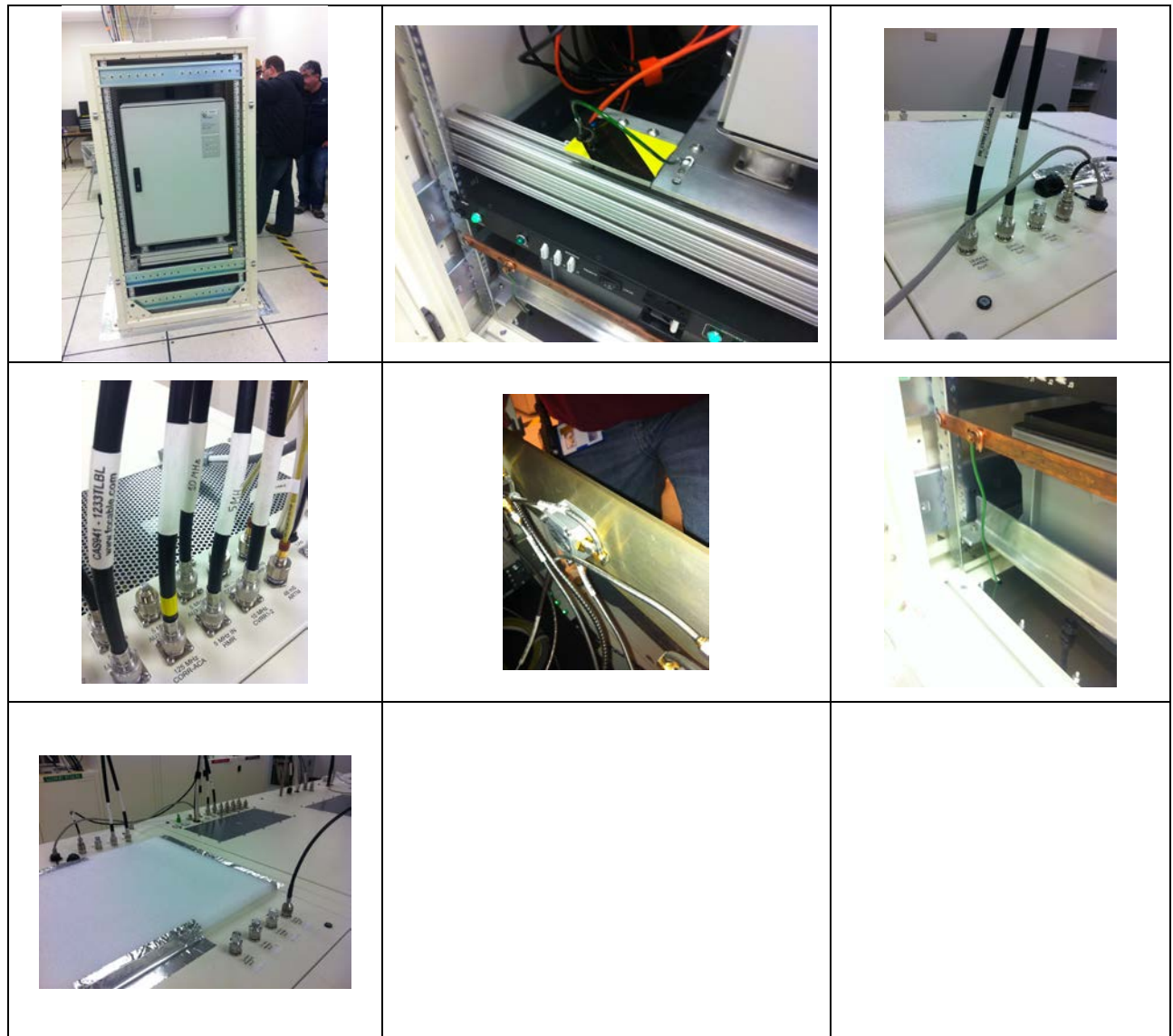
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2 INSPECTION

2.1 General Information

Vendor	T4 science
Inspection date	19/08/2014
Location	AOS TB
Participants	Chris Jacques
Quantity Inspection	1
Serial number	59

2.2 Inspection Pictures









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2.3 Action Item List

DF Number	Picture	DF Description	DF Classification	Status
1		No labels to indicate the correct operation of the MASER Support structure	D	open
2		Rack and Cable labeling needs to be corrected	D	open
3		Cable labeling needs to be corrected	D	open
4		Cable labeling needs to be corrected	D	open





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DF Number	Picture	DF Description	DF Classification	Status
5		Substandard grounding strap	C	open
6		Ethernet MASER connection needs to be rerouted	D	open

2.4 Consolidated Action Item List

DF Number	DF Description	DF Classification	Status
1	No labels to indicate the correct operation of the MASER Support structure	D	open
2	Rack and Cable labeling needs to be corrected	D	open
3	Cable labeling needs to be corrected	D	open
4	Cable labeling needs to be corrected	D	open
5	Substandard grounding strap	C	open
6	Ethernet MASER connection needs to be rerouted	D	open

3 CONCLUSION OF INSPECTION

The H-MASER installation is mainly ok there are some minor issues mainly on labeling and cable routing, and also a substandard grounding strap that should be replaced.