



EM Component Quality and Failure Data Requirements.

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Overview

This document provides the component quality data reporting requirements for Oracle External Manufacturers (EM) for Printed Circuit Board Assemblies. (Not applicable for system level builds)

Audience

Oracle Component Engineering (CE), Supplier Quality Engineering, Oracle EMs

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1-Introduction:

The EM is responsible for assigning resources to support quality management and reporting for electrical components purchased by the EM. These would be for use in builds of Oracle assemblies in the EM's manufacturing process. EM's are required to record and maintain component usage and failure data as necessary to provide Oracle the 4 component quality reports as defined within this document, as necessary to comply with contractual provisions regarding minimum retention period for quality records.

Components isolated via debug by the EM as the cause of a higher level assembly failure and physically removed from the affected assembly must be stored at the EM per the "Bag and Tag" process requirements defined in this document for later reference and possible return to the Component Supplier or Oracle Component Engineering (CE) for failure analysis.

Control limits for the failure rate of the components are set as defined in this document.

2-Monthly Usage and Fail Report (Content comes from EM's Quality Information System (QIS))

The EM will record and maintain data for monthly usage and failure report which will summarize test results by component and platform. "Confirmed Failure" (C_RPM) is defined as a component that was removed and after replacement, the affected board or system passes electrical test. All references to 'FAIL' means confirmed failures and not just removal.

2.1 "Monthly Usage and Fail Report" Details

The data is compiled by the EM and summarized on a Spreadsheet (Excel is preferred) and transferred to Oracle by the EM posting the completed report. This report must be uploaded to an Oracle external repository SecureSites (to be identified by Oracle Component Engineering (CE) and is due no later than 10 calendar days after the end of the latest month.)

2.2 "Monthly Usage and Fail Report" Template and Data Fields

Note: Refer to **Appendix A** (pages 11-12) for examples of each of the following six worksheets that compose the "Monthly SPC Quality Report".

Monthly Component Data Worksheet: This worksheet will show all part numbers by Platforms, Supplier, and Manufacture Part Number (MPN). Required fields are:

Field Title	Format	Field Definition
Month	YYYYMM	Year(Y) and Month(M): Production month of the collected data
EM	Text	Name and Location of EM
EM PN	Numeric	EM component part number
Description	Alpha Numeric	Component description (Fusion description)
Component Type Category	Text	Component general category

OPN	Alpha Numeric	Oracle Part Number
Platform(s)	Alpha Numeric	Oracle Platforms using the part
Component Supplier	Text	Component Supplier name
MPN	Alpha Numeric	Component Supplier Part Number
Usage	Numeric	Total number of parts consumed for the month
Fail	Numeric	Components removed and confirmed as failures after retest
Actual C_RPM	Numeric	C_RPM calculation = (Confirmed Fails/Usage)x10 ⁶
Not Component Issue	Numeric	These are the components which have been determined not to be component failures
Removed Failures But Still Pending Confirmation	Numeric	These are removed components which are still pending FA by the reporting date (10 th of the month)

3-Monthly SPC Analysis Worksheet:

This worksheet will be populated from the EM's Quality Information System and show all part numbers and whether they are in control or not for the reported month. Required fields are:

Field Title	Format	Field Definition
Oracle PN	Alpha Numeric	Oracle Part Number
Description	Alpha Numeric	Description of Oracle PN
Fail	Numeric	Components removed and confirmed as failures after retest
Usage	Numeric	Total number of parts consumed for the month
Actual C_RPM	Numeric	C_RPM calculation = (Confirmed Fails/Usage)x10 ⁶
CL	Numeric	24 Month Mean value calculation
Status / Condition	Text	In control or Not in Control

3.1 Product Analysis Worksheet:

Using the SPC analysis data, this worksheet will breakdown all Out of Control (OOC) p/n's and determine if there is a difference in C_RPM values between various product families. Required fields are:

Field Title	Format	Field Definition only to Product data

Target Oracle PN	Alpha Numeric	Oracle Part Number that was OOC
Product Family	Alpha Numeric	Different product families if any
Actual C_RPM	Numeric	Actual C_RPM value for OOC parts on specified products
CL	Numeric	Calculated mean value
UCL	Numeric	Calculated C_RPM value for the month
Fail	Numeric	Confirmed Fail quantity for each Product
Usage	Numeric	Usage for this product family

3.2 Supplier Analysis Worksheet:

Using the SPC analysis data, this worksheet will breakdown all OOC p/n's and determine if more than one supplier is used for a given p/n and see if there are any major differences in quality. The required fields are:

Field Title	Format	Field Definition only to Supplier data
Target Oracle PN	Alpha Numeric	Oracle Part Number that was OOC
Description	Alpha Numeric	Description of Oracle PN
Supplier Name	Text	Supplier Name
MFG PN	Alpha Numeric	Supplier's PN
Fail	Numeric	Confirmed Fail quantity for each supplier MPN
Usage	Numeric	Usage for this Oracle PN
C_RPM	Numeric	Actual C_RPM value for OOC parts on specified suppliers

3.3 Date Code Analysis Worksheet:

Using the SPC analysis data, this worksheet will breakdown all OOC p/n's to determine if different date codes contributed to the OOC event for the month. Required fields are:

Field Title	Format	Field Definition only Date Code Related data
Target Oracle PN	Alpha Numeric	Oracle Part Number that was OOC
Description	Alpha Numeric	Description of Oracle PN
Supplier Name	Text	Supplier Name
MFG PN	Alpha Numeric	Supplier's PN
Date Codes	Numeric	Different Date Codes accounting for all Fails this month
Parts	Numeric	Number of Fail parts by each Date Code

3.4 Monthly “Out of Control” (OOC) Worksheet:

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Using the SPC analysis data, this worksheet consolidates all of the OOCs for the reporting month and determines if any actions are required based upon this document's criteria.

Field Title	Format	Field Definition
Target Oracle PN	Alpha Numeric	Oracle Part Number that was OOC
Description	Alpha Numeric	Description of Oracle PN
Supplier Name	Text	Supplier Name
MFG PN	Alpha Numeric	Supplier's PN
Fail	Numeric	Components removed and confirmed as failures after retest
Usage	Numeric	Total usage for each Oracle PN
C_RPM	Numeric	C_RPM calculation = (Confirmed Fails/Usage)x10 ⁶
CL	Numeric	Calculated mean/average
UCL	Numeric	Calculated Upper Control Limit
Out of Control	Text	Declares control status
Criteria Action	Alpha Numeric	Declares if actions are required
Remarks	Alpha Numeric	Any additional comments

3.5 Monthly “In Control” but unacceptable C_RPM quality:

Using the SPC analysis data, this worksheet consolidates all “In Control” part numbers that have C_RPM values greater than 2000, usage more than 100 parts and 3 rejects or more.

Field Title	Format	Field Definition
Target Oracle PN	Alpha Numeric	Oracle Part Number that was In Control but C_RPM > 2000
Description	Alpha Numeric	Description of Oracle PN
Supplier Name	Text	Supplier Name
MFG PN	Alpha Numeric	Supplier's PN
Fail	Numeric	Components removed and confirmed as failures after retest , 3 rejects
Usage	Numeric	Total usage for each Oracle PN > 100 parts
C_RPM	Numeric	C_RPM calculation = (Confirmed Fails/Usage)x10 ⁶
CL	Numeric	Calculated mean/average
UCL	Numeric	Calculated Upper Control Limit
Out of Control	Text	Declares control status
Criteria Action	Alpha Numeric	Declares if actions are required
Remarks	Alpha Numeric	Any additional comments

4 -Weekly “Failure Report”

(Content for this report comes from TDMS and ICT reject data) A “Weekly Failure Report” is to be generated as a spreadsheet and sent to Oracle by the EM with details on all failures collected from assembly and test process for the week.

4.1 Weekly Failure Report details

The “Weekly Failure Report” is due by the first Tuesday following the end of the week (Sunday). This report must be uploaded to an Oracle external AQP wiki site (to be identified by the Oracle).

4.2 “Weekly Failure Report” Template and Data Fields

Note: Refer to **Appendix B** for an example of the following worksheets that composes the “Weekly Failure Report”.

Field Title	Format	Field Definition
Item	Alpha Numeric	Log line item of the record
Platform	Alpha Numeric	Oracle Platform, as identified by TDMS
Station	Alpha Numeric	Test station, e.g. BFT_MB
Failure Message	Alpha Numeric	Test fault causing failure, regardless of past yield

Field Title	Format	Field Definition
SN	Numeric	Serial number of assy. comp. was on
Comp. Supplier	Text	Name of failed Component Supplier
MPN	Alpha Numeric	Component Supplier Part Number
Location	Alpha Numeric	Reference Designators involved
EM PN	Alpha Numeric	EM part number of failed part
Description	Alpha Numeric	Component description of the failed part
Work Week	Alpha Numeric	Work week failure occurred
Root Cause	Text	Reason or cause of Failure
Work Week	Alpha Numeric	Production week failure detected/failure date
Action Tracker	Alpha Numeric	Actions taken to verify failure and rework board
Action Item Owner	Text	Owner to investigate/resolve failures
Commit Date	MM/DD/YY	Rework complete promise date
Close Date	MM/DD/YY	Actual rework completion date
Test Set	Alpha Numeric	Test LOG OP used to isolate failure
Test Case	Alpha Numeric	Actual Test
GUTI - Global Unique Test Identifier	Alpha Numeric	Test Record including a board serial number
Snap Log	Alpha Numeric	Error Message Snapshot
Component FA	Alpha Numeric	Details on parts returned to Component Supplier for FA (OOCs)

5-Bag and Tag Process Storage:

Once a component is identified as “confirmed bad”, the component is to be “Bag and Tagged” and stored in a secure MRB (Material Review Board) location. The MRB location should be secure with controlled access and ESD precautions followed regarding handling and storage.

5.1 Data Requirements for “Bag and Tag” Components:

Data must be collected and maintained in order to be able to analyze and group the failures for failure trends. Minimum data to be collected & maintained for “Bag and Tag” parts are: failed time and date, MPN, OPN, assembly serial number (from the board that the component failed on), component location on the board (reference designator), failure symptom details, and test logical operation (“Log Op”).

5.2 Retention Period:

Confirmed bad components shall be retained in ESD safe containers and will be maintained as part of a 13 weeks rolling retention.

6 -Component Supplier Failure Analysis for “OOC” (Out of Control) Failures

Component Quality SPC control limits are set in agreement with CE and the EM for all components based on the criteria as defined below. This is designated as the “OOC” (Out of Control) limit (see below in **Section 6.2** for method of determining “OOC” conditions).

6.1 C_RPM Calculation Formula (for all parts, NPI and sustaining)

The **numerator** in the C_RPM calculation will include all confirmed rejects that are describing a component as being ‘Bad’ functionally. Note: Damaged parts are not included.

The **denominator** is the total parts consumed and **not from receipts**. Numerator should be relative to the denominator, within a time period.

6.2 “OOC” Control Limit Calculation and Guidelines

6.2.1 For OPN’s that do not have a calculated UCL due to being a new part or never having a failure in 24 months, 1000 C_RPM will be used as default upper target limit.

6.2.2 The UCL control limits are recalculated every 6 months, using the previous 24 month’s data.

6.3 Return confirmed failed parts for Failure Analysis

6.3.1 New product introduction parts: All NPI failures require FA and RCCA.

6.3.2 Sustaining Components: EM’s are to return confirmed failed parts to Component Suppliers, for FA/RCCA that are OOC from the Monthly SPC Report that meet the following conditions:

6.3.2.1 Parts that “exceed” the UCL (Upper Control Limit) for the acceptable quality level for the part. The UCL is calculated as follows: $UCL = \text{Mean} + 3\sigma$

6.3.2.2 Component Supplier FA/RCCA is required when:

- More than 100 parts are used and exceeds UCL or
- There have been 3 or more rejects if the used quantity is less than 100 parts used for the given month.

6.3.2.3 Components that are “In Control” but have high C_RPM values need analysis work as well. Action is required when the following conditions exist:

6.3.2.3.1 More than 100 parts used in the month, 3 rejects or more and a C_RPM value exceeds 2000.

6.4 Monthly FA Report:

(Content will come from the EMs Supplier Quality Engineering function tracking system) The EM must publish, to the required wiki site a 3 Month Rolling FA Report. (Basically the last three months.) When the report is published, the EM shall inform OCE via email that the report has been uploaded. The report will be in a spreadsheet (Excel preferred) format, showing all the data as required in the table below:

Date Submitted	MM/DD/YY	Date that part was submitted for FA
Tracking #	Alpha Numeric	This number will be used to account for and keep track of all confirmed components
EM PN	Alpha Numeric	This is Oracle part number and may have a suffix added for EM controls.

MFG Part Number	Alpha Numeric	Sub-tier supplier's part number, known as MPN
Supplier Name	Text	Name of supplier manufacturing the component
Rejected Quantity	Numeric	Number of parts rejected and sent out for FA
No Defect Found	Numeric	This is the count of components that the supplier found to not be defective.
Supplier Issue	Numeric	This is the quantity of confirmed bad components by the component supplier.
Parts Sent to CE	Numeric	Number of parts sent to CE for FA processing
EOS/ESD	Numeric	Number of parts that supplier's FA results showed as being damaged due to EOS / ESD
Physical Damage	Numeric	Number of parts found to be damaged; physically or damaged in removal process
Remarks	Text	Any other supporting comments related to the FA process.

6.5 Analysis of all monthly OOC Failures by the EM

6.5.1 The EM needs to provide monthly regular analysis of the failure data that includes:

Analysis of the monthly data showing any common failure modes and trends among platform, suppliers, date codes, and lot codes, etc.

6.5.2 The EM must maintain a detailed “Action Tracker” log which documents all actions taken by the EM addressing the OOC Failures. This includes, but is not limited to, rework, testing verifications and equipment adjustments. Also, the EM will maintain a FA tracking log that lists and summarizes the return of all components to component suppliers for FA. The FA tracking log by the EM must be published to the wiki site at least monthly.

7 -EM Support Requirement

7.1 EM Key Point of Contact:

The EM is responsible for assigning resources to support quality management and reporting for non-core electrical components. The EM shall designate a Key Point of Contact as the primary interface with Oracle to support resolution of day-to-day issues and any negative quality performance relating to non-core components. A backup Point of Contact and escalation path contact information shall also be provided by the EM.

The EM's designated Key Point of Contact is the first point of contact if an issue concerning an electrical non-core component is escalated at the EM or by the EM to Oracle.

7.2 Responsibilities of the designated EM Key Point of Contact include:

- 1 - Ensuring timely reporting of quality data/metrics as required by this specification.
- 2 - Supporting with Oracle as required.
- 3 - Engaging other resources within the EM's organization as necessary to provide information in a timely manner to assist in characterizing quality issues and associated impact on EM's ability to meet Oracle quality.

8 -Quality Incidents

In the event of a significant quality incident the Key Point of Contact shall notify the Oracle Contact via email alias (to be determined by Oracle) and provide the detailed failure information for the part in question within 24 hours of detection of the incident. In addition to this information the EM shall supply the quantity of on-hand inventory, as well as the outstanding quantities on open purchase orders (PO's), and due dates required for quantities on open PO's.

To qualify as a significant quality incident the issue must meet all of the following requirements:

- C_RPM must be above UCL (or PAL Maximum Acceptable C_RPM Quality Threshold Value)
- The failure mode must have resulted in a reject quantity greater or equals to 3.
- The quality incident must have a notable impact on manufacturing and/or the EM's ability to meet required ship dates.

APPENDIX A: Example Worksheets for the Monthly SPC Reports

These are examples as described in Sections 2 - 4 of this document.

1- Example of worksheet “Monthly Usage/Fail Report”

MONTHS	EM	EM PN	DESCRIPTION	COMPONENT TYPE CATEGORY	ORACLE_P N	PLATFORM	COMPONENT SUPPLIER	MPN	USAGE	CONFIRMED COMPONENT FAILURE	C_RPM	C L	UCL	Condition Check	NOT COMP. ISSUE	REMOVED FAILURE BUT PENDING CONFIRMATION
201608	EM Name	T010306	FUSE,10A,24V,FAST,1206	FUSE	T010306	T7-2	COOPER BUSSMANN	TR3216FF10-R	2,500	0	0	0	0	Within Control	0	
201608	EM Name	T010306	FUSE,10A,24V,FAST,1206	FUSE	T010306	T5-1B	COOPER BUSSMANN	TR3216FF10-R	5,000	0	0	0	0	Within Control	0	
201608	EM Name	T014341	RES,866R,15,1/16W,MF,0402	RES	T014341	T7-2	YAGEO CORPORATION	RC0402FR-07866RUL	3,000	0	0	0	0	Within Control	0	
201608	EM Name	T014341	RES,866R,15,1/16W,MF,0402	RES	T014341	T5-1B	KOA SPEER	RK73HETTP6660F	4,000	0	0	0	0	Within Control	0	
201608	EM Name	T026143	IC,EEPROM,64K,12C,T1SO8	IC	T026143	T5-8	ATMEL	AT24C64B-10TU-2.7	15,000	1	67	0	500	Within Control	1	
201608	EM Name	T026143	IC,EEPROM,64K,12C,T1SO8	IC	T026143	M5	MICROCHIP TECHNOLOGY	24LC64FT-JST	2,500	0	0	0	0	Within Control	0	
201608	EM Name	T02T128	LED,1/2,GRN-S25,120DEG,JV180-54	LED	T02T128	M5	EVERLIGHT	19-215/GHC-X3TIN3T	5,000	6	1,200	\$ 1,000	Out of Control	1	2	

2- Example of worksheet “Monthly SPC Report”

OPN	PN description	Fail	Usage	C_RPM	CL	UCL	Condition check	Pending Confirm	Part Not bad
7010023	RES,49.9K,1%,1/10W,MF,0603	0	342	0	0	1000	within control	0	0
7010211	CAP,2.2UF,10%,10V,X5R,0603	0	1200	0	13	204	within control	0	0
7010280	RES,475R,1%,1/16W,MF,0402	0	1288	0	0	1000	within control	0	0
7010757	CAP,100UF,20%,6.3V,X5R,1210	0	3507	0	7	113	within control	0	0
7010759	PS,DCDC,SWMODE,PMBUS,12A,QFN21	0	0 No usage	837	3162	Dec16 no usage		0	0
7010764	CAP,47UF,20%,6.3V,X5R,1206	0	141	0	0	1000	within control	0	0
7010862	RES,88.7R,1%,1/16W,MF,0402	0	0 No usage	0	1000	Dec16 no usage		0	0

3- Example of worksheet “Product Analysis”

Target PN,	Product Family	C_RPM (for ea. Family)	CL	UCL	fail	Usage
7045366	T5-2	0	518	2311	0	329
	T5-48	696970			46	66
7073399	T7-4	8130	0	1000	2	246
	T8-4	0			0	194
7096087	T7-1	17182	3165	12274	5	291
	T7-2	311558			62	199
	T7-4	80645			20	248
7333459	S7-2	2315	0	1000	1	432
	S7-2L	8000			1	125

4- Example of worksheet “Supplier Report”

Target PN.	Desc.,	Vendor Name,	MFG PN,	Fail,	Usage,	CL	UCL	C_RPM
7300401	PROG IC ETHERNET SWITCH CONFIG EEPROM	ATMEL	AT24C64D-SHHM-T	0	16	1748	14584	0
160-2081-01	MOSFET,N,80A,100V,.0075R,T0263	ON SEMI	CAT24C64WI-GT3	2	63	1748	14584	31746
		FAIRCHILD SEMIC	FDB3632	0	330	522	2734	0
		NXP	BUK7610-100B	2	400	522	2734	5000

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5- Example of worksheet “Date Code Analysis”

Target PN	Description	Vendor	Mfg PN	Date Codes of failed,	Parts,
7070239	SKT,63X65,APP,P 1MM,1.22MM-THK	AMPHENOL	11228-001	1428 1443 1449	2 10 95
7096087	SKT,63X65,T7,1MM PITCH,1.22MM THK	AMPHENOL	11228-003	1449 1512 1513 1611	4 80 2 1
7333459	PS,AC,A266,F,12V,1200W	DELTA	ECD55020002	1644 1647	1 1

6- Example of worksheet “Out of Control”

OOC PN	Description	MFG PN	Fail	Usage	C_RPM	CL	UCL	In/Out of Control	Criteria action	Remark
7023514	IIC,DPOT,2-CH,100K,I2C,TSSOP14	TPL0102-100PWR	1	1538	651	38	433	out of control	Single failure, action not required	
7026703	CONN,XCD-HD,BP,4PRX6,CUST,RTGD,PF	9244205001	1	376	2660	0	1000	out of control	Single failure, action not required	
7045366	SKT, 51X51, APP,10UINCH AU, 2095P, 1.22MM	10449-002	46	395	116456	518	2311	out of control	Action required	T5 interposer old date code from RMA (SSP3
7047175	CONN,RJ45,VERT,REC,10POS,P=2.54MM,MAG 45,GIG,W/O-LED,TH.	RJMG2V1010030FR	5	360	13889	1740	6058	out of control	Action required	5 connectors from Keystone, date code 09/20/2016. - Still need to followup the FA of date code 05/10/2016 with Amphenol
7060863	PRGM,1DT SW2,CONFIG7,2WAY,T5-8,VXX	CAT24C64WI-GT3	1	14	71429	0	1000	out of control	Usage<100, action not required	

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APPENDIX B: Example Worksheet for Weekly Fail Report

Below is an example of the worksheet that content of the “Weekly Fail Report” described in section 4.2 of this document.

Item	PLATFORM	STN.	Failure message	SN	Category	Component Supplier Name	Component MPN	Location	Part number	Work week	Failure(%)	Root Cause	Action Tracker
2	T7-1	BFT_MB	Fault fault.asic.io-bridge.c2c-failover on FRU _SYS_MB at component _SYS_MB_I0H0_ILINK0	465769T+1 615NJ03EW	Component	Amphenol	11228-003	INTSKT0	7096087SIW	Q4'16wk09	8.70%	INTSKT0 bad	bridge.c2c-failover manual post failed. -swap MR/CMO to MR/CM1 manual post failed. Reseat
3	T7-1	BFT_YMR	Fault fault.fruid.replay on FRU _SYS_MB_CM1_CMP_MR2 at component _SYS_MB_CM1_CMP_MR2	69T+1615NK	Component	ISU Petasys	24LC64FT-I/ST	PCB	7089507SIW	Q4'16wk09	0.42%	Raw Card Int	465769T+1615NE 0L04 (PCBA 465769T+1615NE 0FHNI) report.cha ssis.temperature-uc r-uc ghi@/SYS/MB/CM1
1	T7-1	BFT_MB	ATO Check Fail: missing FRU	465769T+1 551NJ02K9	Component	Enter Supplier	Enter MPN	ASSYCPU0	7315604	Q3'16wk04	4.65%	Bad CPU	scsi-all missing CDROM.-check CDROM ok.-run command probe

Item	PLATFORM	STN.	Failure message	SN	Category	Component Supplier Name	Component MPN	Location	Part number	Work week	Failure(%)	Root Cause	Action Tracker
2	T7-1	BFT_MB	Fault fault.asic.io-bridge.c2c-failover on FRU _SYS_MB at component _SYS_MB_IIOH0_ILINK0	465769T+1 615NJ03EW	Component	Amphenol	11228-003	INTSKT0	7096087SIW	Q4'16wk09	8.70%	INTSKT0 bad	bridge.c2c-failover manual post failed. -swap MRC/M0 to MRC/M1 manual post failed. Reseat
3	T7-1	BFT_YMR	Fault fault.fruid.replay on FRU _SYS_MB_CM1_CMP_MR2 at component _SYS_MB_CM1_CMP_MR2	69T+1615NK	Component	ISU Petasys	24LC64FT-I/ST	PCB	7089507SIW	Q4'16wk09	0.42%	Raw Card In	465769T+1615NK 0L04 (PCBA 465769T+1615NE 0FHNI)ereport.chassis.temperature-uc- rghi@/SYS/MB/CM1
1	T7-1	BFT_MB	ATO Check Fail: missing FRU	465769T+1 551NJ02K9	Component	Enter Supplier	Enter MPN	ASSYCPU0	7315604	Q3'16wk04	4.65%	Bad CPU	scsi-all missing CDROM. -check CDROM ok -run command probe-
Action item Owner	Commit Date	Close Date	TEST_SET	TEST_CASE	Fail Symptom		GUTI		Snap log		Component FA		
CTH/Peerapun	Apr 27,16	Apr 27,16	UPDATE_OC	CAN_SP_FAUL	Fault C2C_LINK	571474530069000000000000	ereport.hc.dev_fault@/SYS/MB/CM0/CMP/CLX0/LINK1/LANE7 reason = Low signal magnitude h0 = 12 < 18	04-May-16: No defective part available 28-Apr-16: Request FA					
CTH/Peerapun	6-Jul-16	6-Jul-16	INITIALIZE_SPC	CAN_SP_FAUL	SP gen_log_check fail	571666D600C800000000000	2016-04-19/17:59:06 ereport.chassis.temperatu re-unc- rghi@/SYS/MB/CM1/CMP/MR2/BOB1 detector = SYS/MB/CM1/CMP/MR2/B	Send back supplier for FA					
CTH/Peerapun	13-Jan-16	13-Jan-16	POST_1	O_CHECK_P0	QBP probe-scs fail	5675889600D4000000000000	[ERROR]: USB Device pci@308/pci@1/usb@/st orage@6/disk not found!	Ship back via OCE comment					

Document History

Rev	Date	Description of Change
01	30 Mar 2017	Initial Release
02	04 Apr 2017	Made headings in tables consistent where appropriate. Changed Overview statement.
03	26 Oct 2021	Update organization names, remove reference to Agile & replace with Fusion. Remove reference to Beehive.
04	24 Jan 2022	Update ESO contact for questions from Beehive to eso business docs us grp@oracle.com. No content change.

Related Information

REASON FOR CHANGE:

Update ESO contact for questions from Beehive to eso_business_docs_us_grp@oracle.com. No content change.

- When Document Template is complete, email source file to eso_business_docs_us_grp@oracle.com
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