Certificate of Compliance

Certificate: 2613175 **Master Contract:** 162874

Project: 2613175 **Date Issued:** April 18, 2013

Issued to: **Fujitsu Technology Solutions GmbH**

Product Compliance Center
Buergermeister-Ulrich-Str 100
Augsburg, 86199
Germany
Attention: Mr. Erfried Roesner

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C', 'US' and

Syed Rizvi

Issued by: Syed Rizvi

PRODUCTS

CLASS 3862 13 - INFORMATION TECHNOLOGY EQUIPMENT - (CSA 60950-1-07, Second Edition)

CLASS 3862 93 - INFORMATION TECHNOLOGY EQUIPMENT - (UL 60950-1, Second Edition-Certified to U.S.Stds

Component, System board (motherboard), Model D3222-B, Class III equipment.

The model designation may be followed by additional letters and numbers or blanks denoting differences in SELV secondary circuits or minor mechanical differences.

The EUT is a µATX board powered by ±12V, +5V, +3.3V and +5Vaux with PS2, Audio, USB, DVI, VGA, Display Port, COM and LAN ports.

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Source	Voltage	Min PS load	Max. Voltage tolerance	Max. Mainboard Current
Main power	+12V	0.1A	±5%	14A / 18A
Supply	-12V	0A	±10%	0.1A
	+5V	0.2A	±5%	5A
	+3.3V	0A	±5%	2A
Aux. Power Supply	+5Vaux	0A	+5% / -3%	2.5A

Notes:

- The subject system board is certified only as component of other Certified equipment where the suitability of each combination is to be determined by CSA.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 60950-1-07, Amendment 1: 2011 (MOD) - Information Technology Equipment – Safety – Part 1: General Requirements (Bi-national Standard, with UL 60950-1-2007, 2nd Ed.)

ANSI/UL Std No. 60950-1-2011 - Information Technology Equipment – Safety – Part 1: General Requirements.

Supplement to Certificate of Compliance

Certificate: 2613175 **Master Contract:** 162874

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
2613175	Apr 18, 2013	Original certification.

Descriptive Report and Test Results

MASTER CONTRACT: 162874
REPORT: 2613175
PROJECT: 2613175

Edition 1: April 18, 2013; Project 2613175 – Toronto
Issued by Syed Adeel Rizvi; Reviewed by Lino Menezes, Technologist

Contents:

PRODUCTS

CLASS 3862 13 – INFORMATION TECHNOLOGY EQUIPMENT – (CSA 60950-1-07, 2nd Ed)
CLASS 3862 93 – INFORMATION TECHNOLOGY EQUIPMENT – (UL 60950-1, 2nd Ed) – Certified to US Standards

Component, System board (motherboard), Model D3222-B, Class III equipment.

The model designation may be followed by additional letters and numbers or blanks denoting differences in SELV secondary circuits or minor mechanical differences.

The EUT is a µATX board powered by ±12V, +5V, +3.3V and +5Vaux with PS2, Audio, USB, DVI, VGA, Display Port, COM and LAN ports.

Source	Voltage	Min PS load	Max. Voltage tolerance	Max. Mainboard Current
Main power Supply	+12V	0.1A	±5%	14A / 18A
	-12V	0A	±10%	0.1A
	+5V	0.2A	±5%	5A
	+3.3V	0A	±5%	2A
Aux. Power Supply	$+5V_{aux}$	0A	+5% / -3%	2.5A

Notes:
1. The subject system board is certified only as component of other Certified equipment where the suitability of each combination is to be determined by CSA.

Conditions of Acceptability

1. Limitation of energy source to 240VA is subject to evaluation in the end product.
2. The input current and temperature tests are to be performed in the end system.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 60950-1-07, Amendment 1: 2011 (MOD)	Information Technology Equipment – Safety – Part 1: General Requirements (Bi-national Standard, with UL 60950-1-2007, 2nd Ed.)
ANSI/UL Std No. 60950-1-2011	Information Technology Equipment – Safety – Part 1: General Requirements.

MARKINGS

Product markings shall be in accordance with the related standards. In addition, it shall be the responsibility of the manufacturer to provide additional markings on the product to comply with the requirements of the local regulatory authorities. For example, in Canada, any caution and warning markings must be provided in French and English.

Minimum Markings:

Marking Method: (For Minimum Markings)

[X] Non-metallic Self-adhesive Nameplate, not CSA Accepted nor UL Recognized Type: (for components ONLY)

Required Information: (For Minimum Markings)

[X] The submittor´s name and/or CSA Contract Number “162874”
[X] Model or identifying designation
[Optional] The complete electrical ratings in input volts and amperes.
[X] Date of manufacture, serial number or date code traceable to month and year of manufacture;
[X] The component CSA Monogram and an appropriate indicator as applicable

[X] For Use in Canada and the USA: CSA Monogram, “NRTL/C” or “C-US” indicator and the optional indicators “CSA 60950-1-07” and “ANSI/UL 60950-1-2007”.

Note: Bilingual Markings for products with CSA Mark or CSA Mark and the NRTL/C indicator. Jurisdiction in Canada may require these markings to be also in French. It is the responsibility of the Customer to provide bilingual markings, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the Customer to determine this requirements and have bilingual wording added to the “Markings”,

Note. The nameplate may by be printed in the factory using 3M Scotchmark 3690-906E or CSA accepted printing system.

[X] Additional Markings and Documentation: (Due mainly to safety issues)

1. Battery (Replaceable Type, lithium and other types):

Battery, if placed in operator access area, have the following markings (or the equivalent), either provided next to the batteries or in both operator and service manual. If the batteries are placed elsewhere, then the markings are either provided next to the batteries or in service manual.

CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

ATTENTION
IL Y A RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UNE BATTERIE DE TYPE INCORRECT.
METTRE AU REBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS

ALTERATIONS

Same as markings above

FACTORY TESTS

Not Applicable. No Factory test required

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

1. Component descriptions marked with either the "(INT)" or "(INT*)" identifiers may be substituted with other components providing the requirements specified under the notes in the "Description" are complied with.

COMPONENT SPECIAL PICKUP

1. Component descriptions marked with the identifier "(CT)" are subject to annual pickup and Conformity Testing.

DESCRIPTION

Notes:

1. Component Substitution
   a) Critical components (those identified by mfr name, cat no), which are NOT identified with either "INT" or "INT*" are not eligible for substitution without evaluation and report updating.
   b) The term "INT" means a "Certified" and/or "Listed" (or a "Recognized" and/or "Accepted") component may be replaced by one "Certified" and/or "Listed" by an organization (accredited by OSHA/SCC), for the same application; providing the applicable country identifiers are included and requirements in item "d" below are complied with.
   c) The term "INT*" means a "Recognized" and/or "Accepted" component may be replaced by one "Recognized" and/or "Accepted" by an organization (accredited by OSHA/SCC), for the same application, providing the applicable country identifiers are included, the component is **also** CSA Certified, the requirements in item "d" below are complied with and any "conditions of suitability" for the component (as recorded in this descriptive report) are complied with.
   d) Components which have been substituted, must be of an equivalent rating, configuration (size, orientation, mounting) and the applicable minimum creepage and clearance distances are to be maintained from live parts to bonded metal parts and secondary parts.
   e) Substitution of a "Certified" and/or "Listed" component with a component that is "Recognized" or "Accepted" is not permitted without evaluation and report updating.

Model: D3222-B

The subject equipment is a system board intended to operate in normal office and home environments.

a) Type of Equipment: Component, system board

b) Class of Equipment: Class III

c) Operating conditions: Continuous

d) Connection to Supply: Nor directly connected to the mains.

e) Type of Power System: SELV

f) Mobility: for building in

g) Access Location: Operator accessible

h) Dimensions (mm) approx: 213mm x 243mm

i) Pollution Degree: 2

j) Maximum Rated Ambient Temperature: 50 Deg C

k) Accessory: Not applicable

l) Installation: May be installed by the user in accordance with the installation instructions provided with the equipment.

Approvals Codes

C	=	CSA Certified and suitable for the application
C*, Labelled*	=	CSA Certified with the CSA Monogram on the component and suitable for the application.
cUS (NRTL/C)	=	CSA Certified to CSA/US requirements and suitable for the application
US (NRTL)	=	CSA Certified to US requirements and suitable to the application
UL	=	UL Listed equipment/sub-system and suitable for the application
UR	=	UL Recognized component/sub-system and suitable for the application. (“R” in “UR” is printed in reverse on actual label).
cUL	=	UL Listed equipment/sub-system to CSA requirements and suitable for the application.
cUR	=	UL Recognized component/sub-system to CSA requirements and suitable for the application. (“R” in “UR” is printed in reverse on actual label).
B	=	BSI Certified and suitable for the application.
D	=	DEMKO Certified and suitable to the application
FI	=	Finland Certified and suitable for the application.
N	=	NEMKO Certified and suitable for the application.
S	=	SEMKO Certified and suitable for the application.
SEV	=	SEV Certified and suitable for the application.
T	=	TUV Certified and suitable for the application.
V	=	VDE Certified and suitable for the application.

List of Critical Components: (Components identical for all models covered in this report)

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity[1])
Printed Circuit Board (INT)	HANNSTAR BOARD CORP	MV-6	94V-0 Min 105°C	UL94	UR (E89382)
Lithium Battery	Hitachi Maxell	CR2032	220mAh / 10mA [2]	UL1642	UR (MH12568)
(Alternatives)	KTS (VIC – DAWN)	CR2032	210mAh / 10mA [2]	UL1642	UR (MH20550)
	FDK Energy	CR2032	220mAh / 10mA [2]	UL1642	UR (MH13421)
Battery Protection circuit (INT)	Various	Various Components on systemboard: 430V51 (diode) and 430R50 (resistor) or 470R70 (resistor) and 760R10 (resistor) and 500D00 (IC)	-One diode and resistor min 1kΩ or -2.2kΩ resistor and 0Ω resistor and SCH5627 integrated circuit	-	Tested in equipment
PTC	Raychem	miniSMDC200	2.0A/4.0A [3]	IEC60730-1, UL 1434	UR (E74889)
(Alternatives)	Bourns	MF-MSMF200-2	2.0A/4.0A [3]	IEC60730-1, UL 1434	UR (E174545)
(Alternatives)	Raychem	nanoSMDC075F	0.75A/1.5A [3]	IEC60730-1, UL 1434	UR (E74889)
(Alternatives)	Bourns	MF-NSMF075	0.75A/1.5A [3]	IEC60730-1, UL 1434	UR (E174545)
Internal Plastics	Various	Various	Min V-2, HF-2 or VTM-2, except small parts	UL94	UR

Supplementary Information:

1) an asterisk indicates are mark which assures the agreed level of surveillance
2) Nominal discharge current (from data sheet) / max. abnormal charging current (from UL database)
3) I_{hold}/I_{trip}

TESTS

Project 2613175

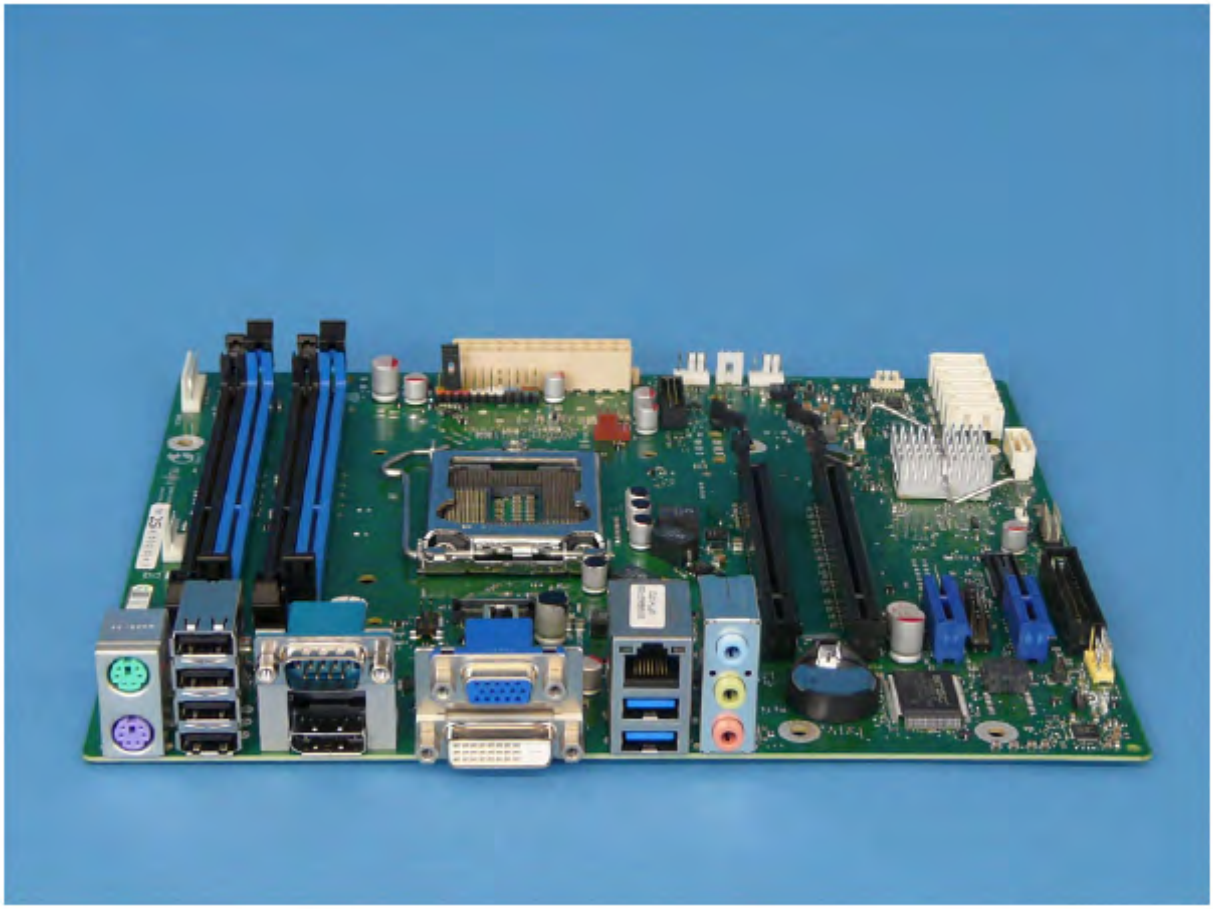
The following applicable tests were conducted with satisfactory results at Fujitsu Technology Solutions GmbH in Augsburg, Germany on March 2013 – April 2013.

Detailed test results are in Appendix A: Original Test Report – CER+1SB12-0012+S01stored at CSA under Master Contract 162874, Project 2613175 in documentum.

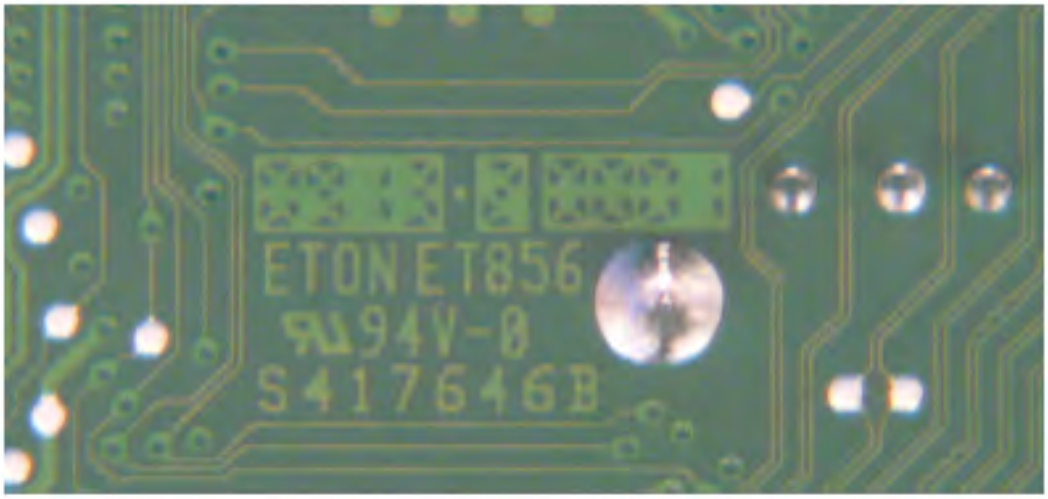
LIST OF TESTS CONDUCTED

Tests Conducted (marked with a "C")	Clause	Description
C	2.5	Limited Power Sources
C	4.3.8	Lithium Battery (Reverse/Charging Current Measurement)
C	4.5	Temperature

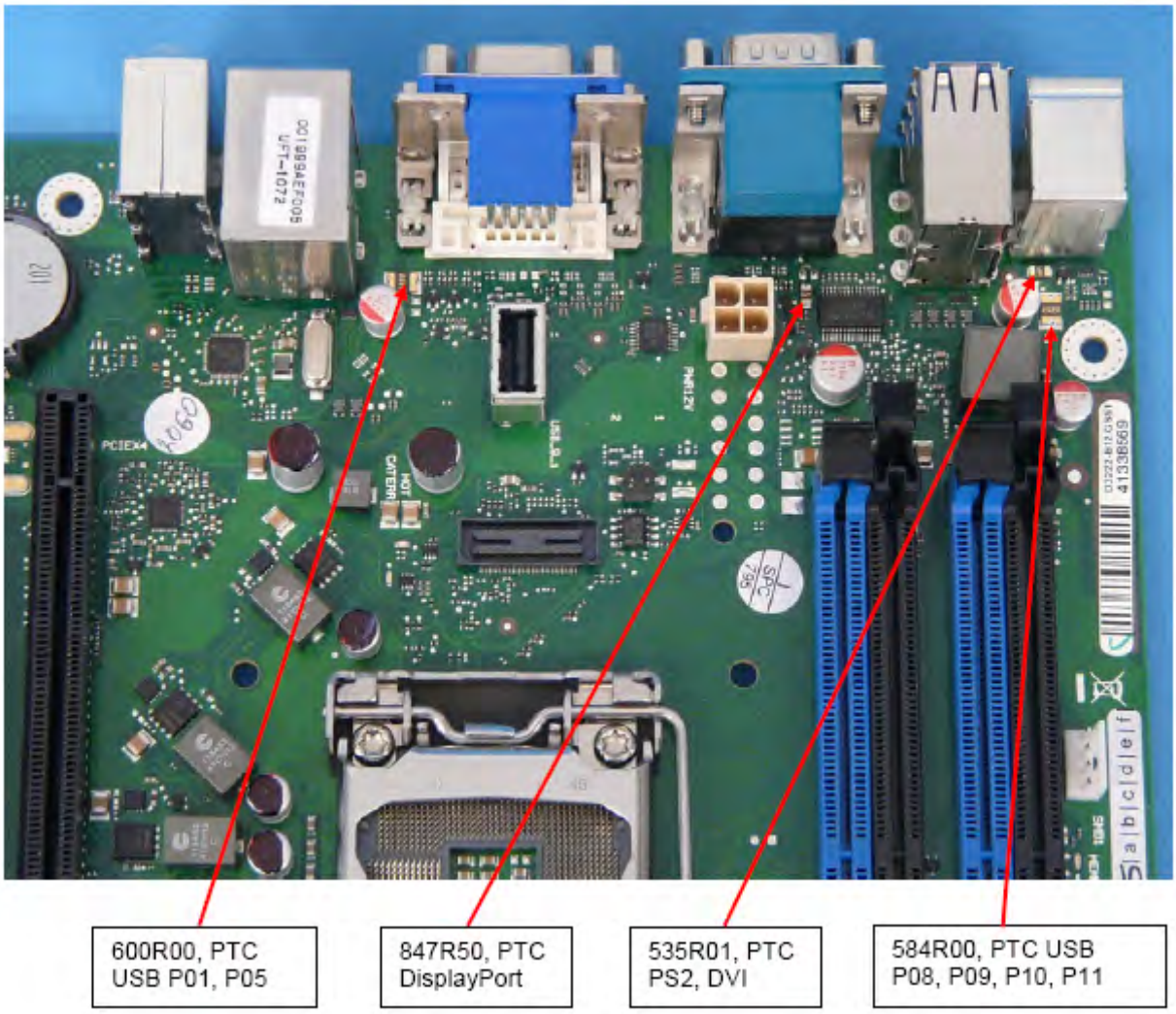
Front view



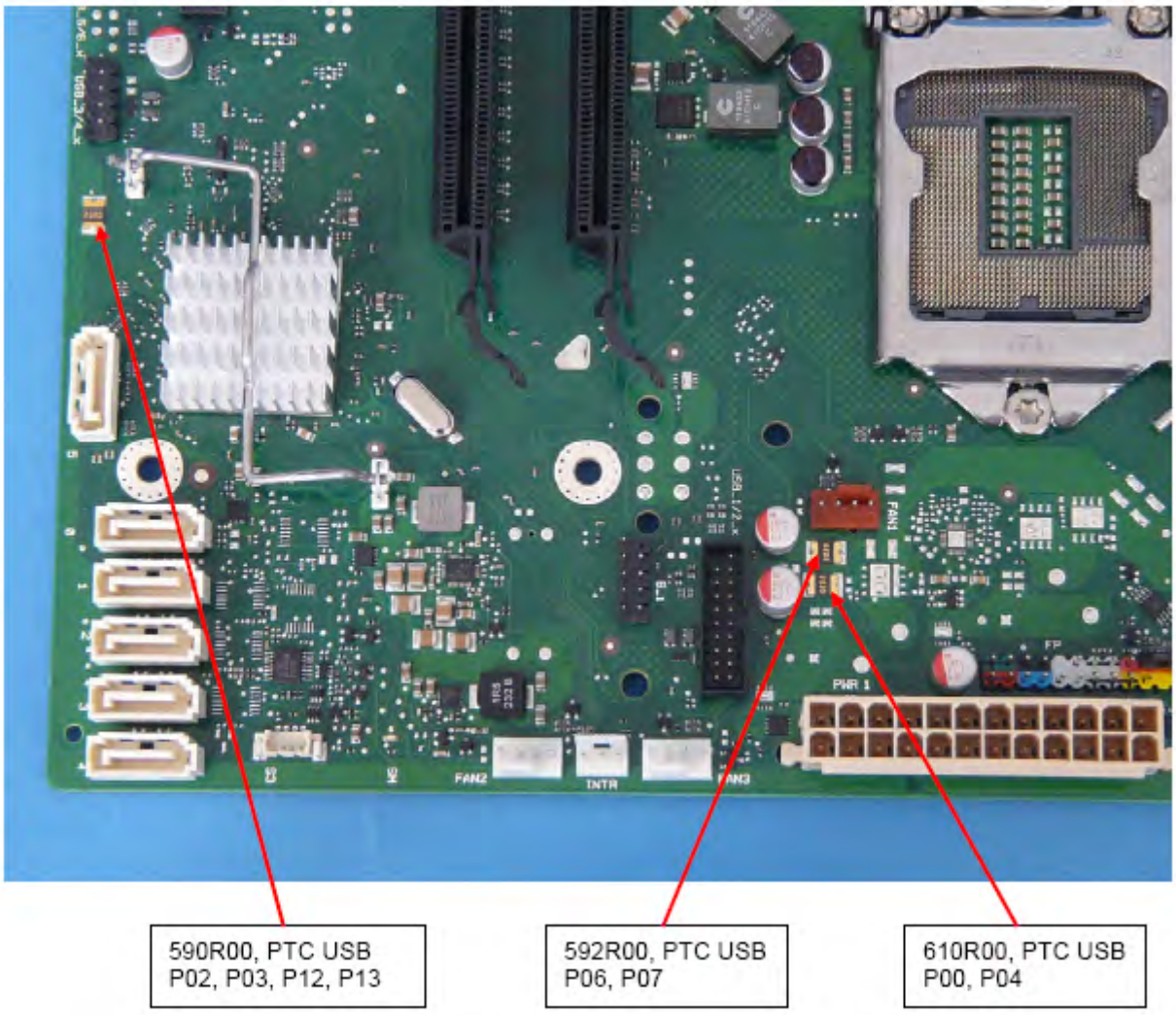
Detailed view to flammability classification / desgination (may be vary):



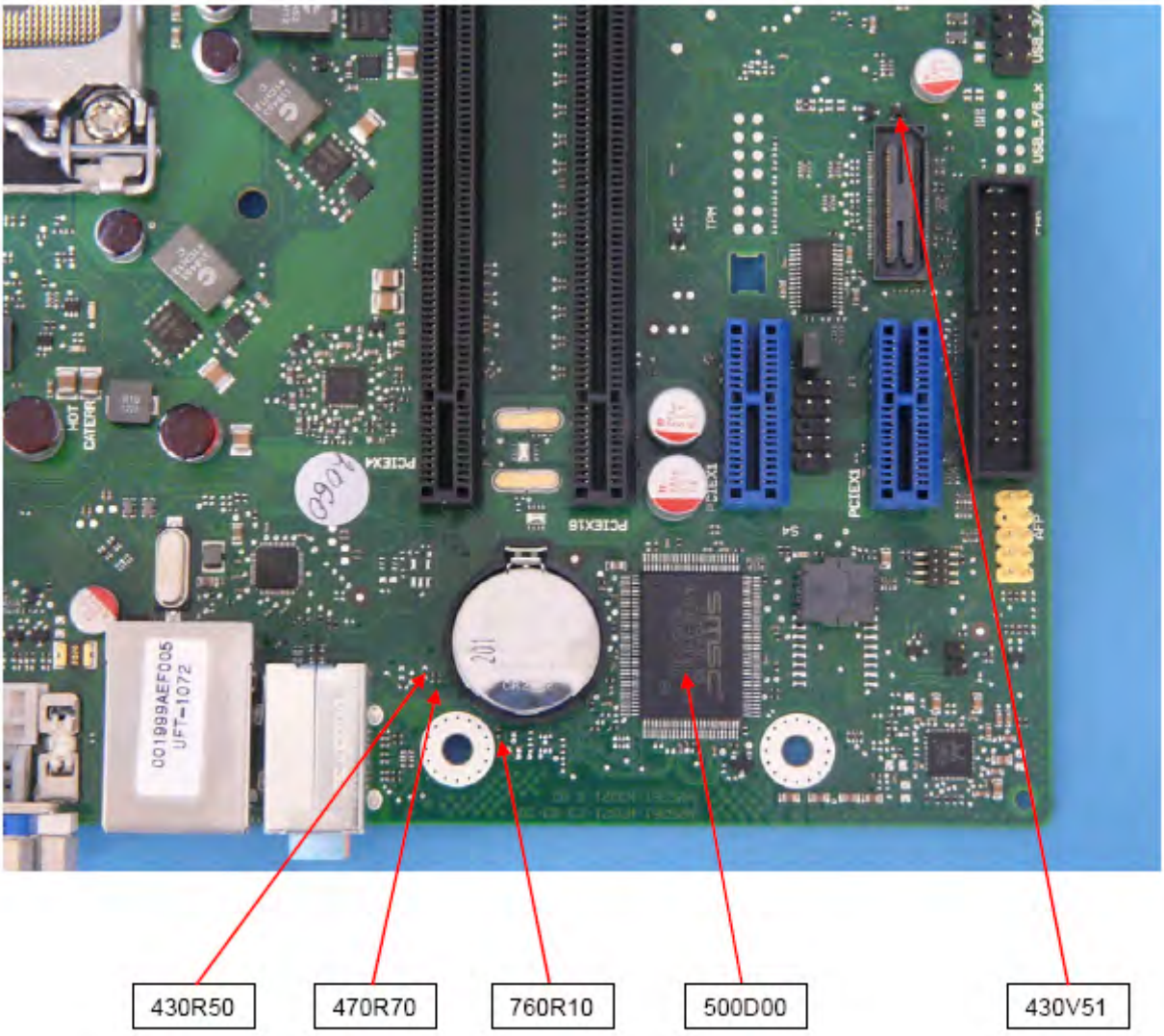
View to PTCs:


600R00, PTC
USB P01, P05
847R50, PTC
DisplayPort
535R01, PTC
PS2, DVI
584R00, PTC USB
P08, P09, P10, P11

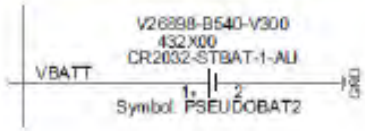
View to PTCs:


590R00, PTC USB
P02, P03, P12, P13
592R00, PTC USB
P06, P07
610R00, PTC USB
P00, P04

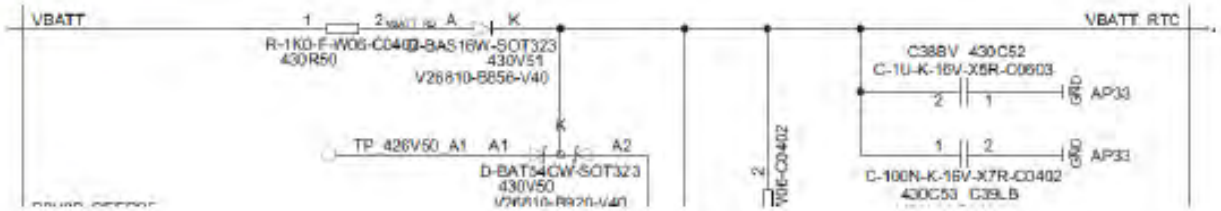
View to location of components for protection of Li battery:

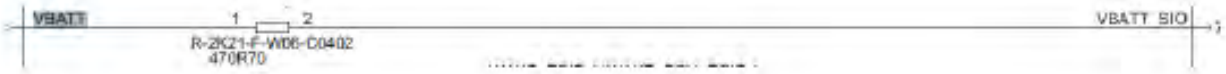


Lithium battery protection

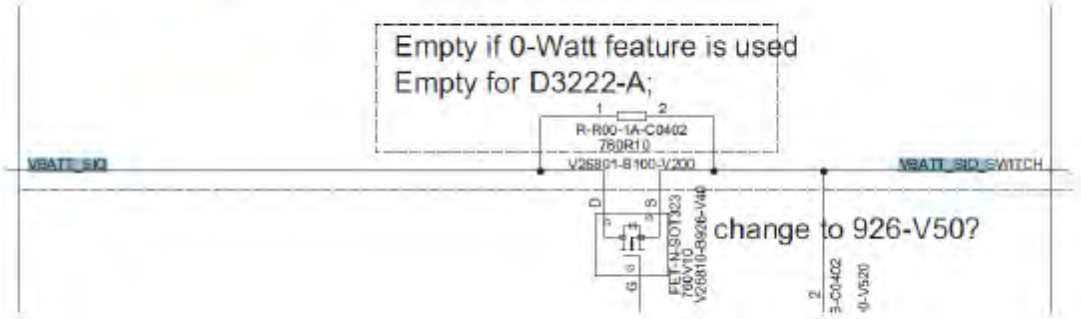


VBATT

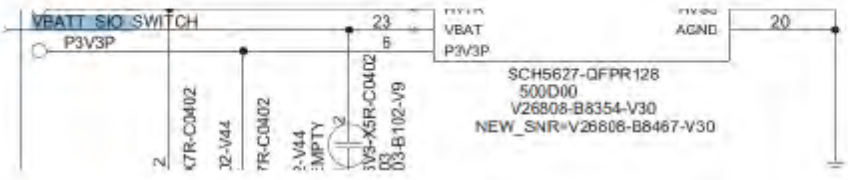




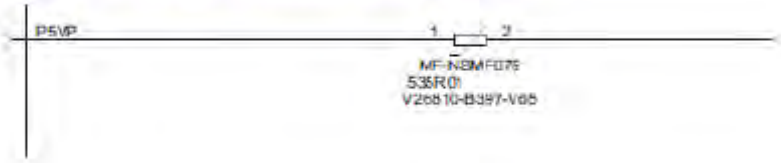
VBATT_SIO
(760V10 not assembled)



VBATT_SIO_SWITCH

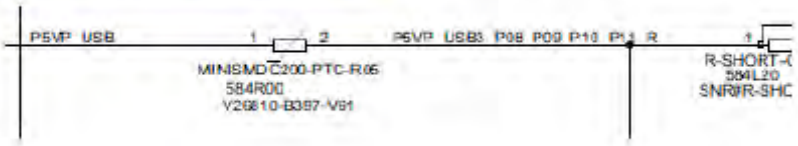


PTC for PS2 (Mouse, Keyboard) and DVI / VGA

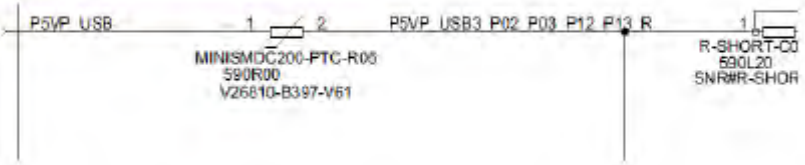


PTC for DisplayPort

PTC for USB P08, P09, P10, P11



PTC for USB P02, P03, P12, P13



PTC for USB P00, P04

PTC for USB P06, P07

PTC for USB P01, P05