FUJITSU

Product Compliance Center

Thermography Test Report

Equipment under Test (EUT):	**System Board D3313-S30 GS51**
Applicant:	FUJITSU TECHNOLOGY SOLUTIONS GmbH FTS PDG WPS R&D OEM Mr. Mertes, Wilbert Bürgermeister-Ulrich-Strasse 100 86199 Augsburg
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Test date:	September 24, 2012
Issue date:	September 24, 2013

Prepared by:	Kevin Degle Technician	 Signature
Reviewed by:	Matthias Härle Technician	 Signature

2. Table of contents

3. Summary of standards and results

The system was tested according to the test specification listed below.

3.1. Test specifications:

Thermography	A26099-Y0023-V261	FTS work specification

3.2. Summary of results

3.2.1. Evaluation of test results

see detected temperature peaks on page 6

Note: The results are only applicable for the tested configuration.

3.3. Table of used instruments

Thermography

Test- / Measure device	Equipment name			Check / Calibration	
	Manufacturer	Type	Serial-No.	last*	next*
Thermography system	FLIR	SC620	404003720	---	12.13C
Lens	FLIR	Clos-up IR lens 0.5X, f=75mm	---	---	12.13C
Lens	FLIR	IR lans, f=19mm, 45°	---	---	12.13C
Software	FLIR	ThermaCAM Researcher	---	---	---
	FLIR	Reporter pro	---	---	---
Temperature reference	AGEMA	1010	12013	11.12C	11.13C

* C = Calibration CH = Check

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4. Equipment under test

4.1. System description

Product type:	System board
Manufacturer:	Fujitsu Technology Solutions GmbH
Model:	D3313-S30 GS51 SN: 42203620

EUT with IR-scanner

BIOS:V4.6.5.4 R0.50.1 for D3313-S3x 09/19/2013, **CPU:** AMD GX-420CA SOC with Radeon Graphics 2.0GHz with Cooler Master heat sink with fan, **RAM:**2xHMT325S6CFR8A 2GB 1Rx8 PC3L-12800S-11-12-B2 dc:1317, **SSD**: Toshiba THSNX032GMCT 32GB, USB **keyboard and mouse**

Heat up time: >2h

Receipt date:	September 23, 2013
Condition when received:	Ready for test

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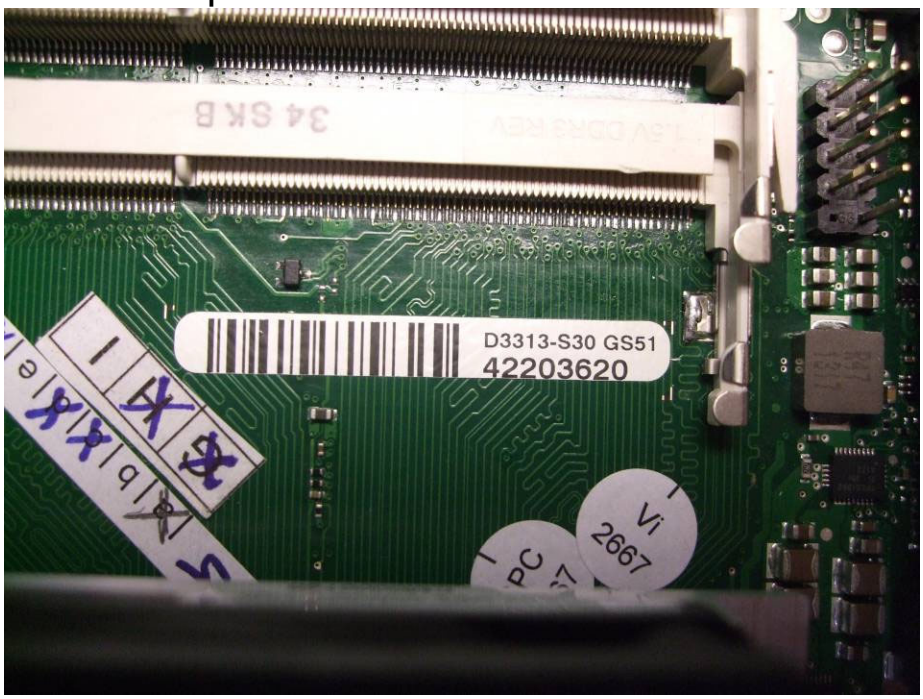
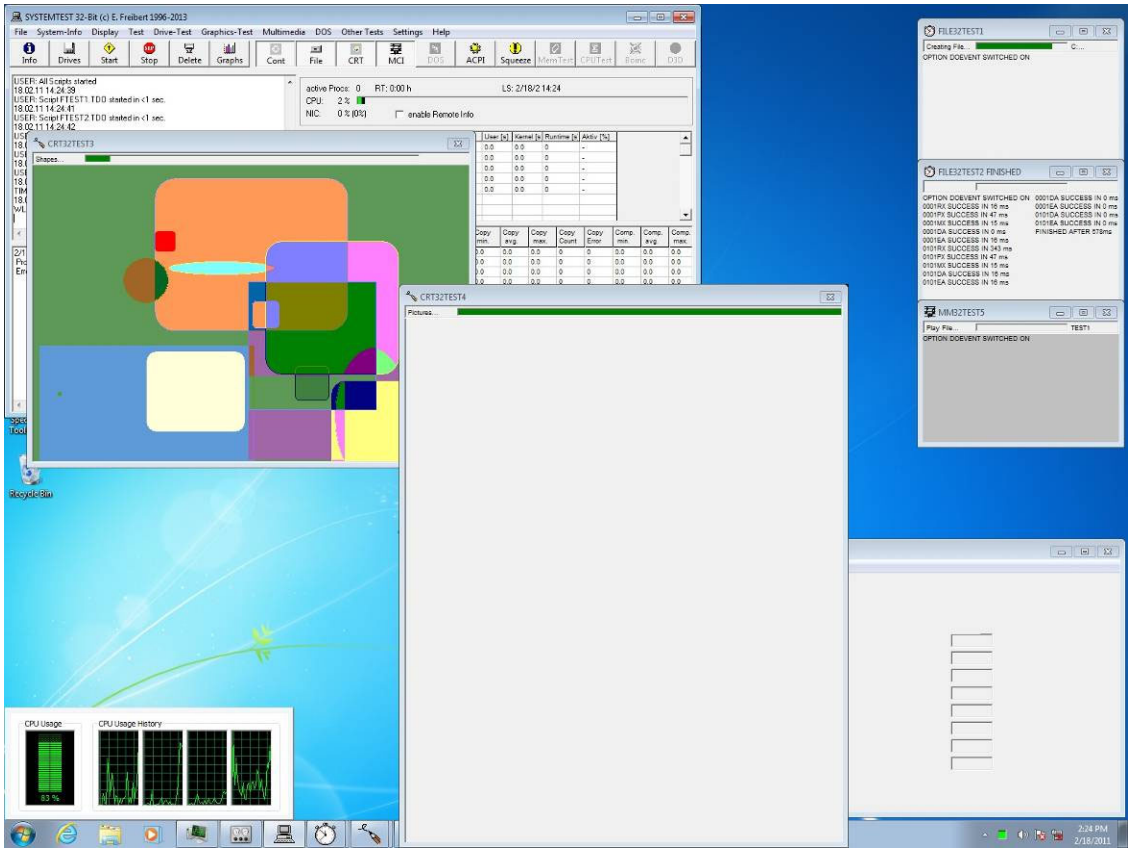
4.2. EUT photos



System board type label



Screenshot of testing software

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5. Test results

5.1. Detected temperature peaks

Component topside temperature at an ambient temperature of 23 °C

Through film ☐ **Reference black body: debit 95°C (24° lens) is** **95,5** **°C**

no#	Location	Component	Temperature with film	Temperature without film	IR-images no:	Spot	Comment:	Sens point
01	D3313-S30	924N50	---°C	---°C	5.2.1	SP1	Overview to see hot spots	
02	-"-	923L50	---°C	---°C	-"-	SP2	-"-	
03	-"-	mSATA-module	---°C	---°C	-"-	SP3	-"-	
04	-"-	924N50	---°C	71,3°C	5.2.2	SP1		
05	-"-	923L50	---°C	77,3°C	5.2.3	SP1		
06	-"-	mSATA-module	---°C	54,7°C	5.2.4	SP1		
07	-"- back side	923N00	---°C	---°C	5.2.5	SP1	Overview to see hot spots	
08	-"-	923N00	---°C	62,5°C	5.2.6	SP1		

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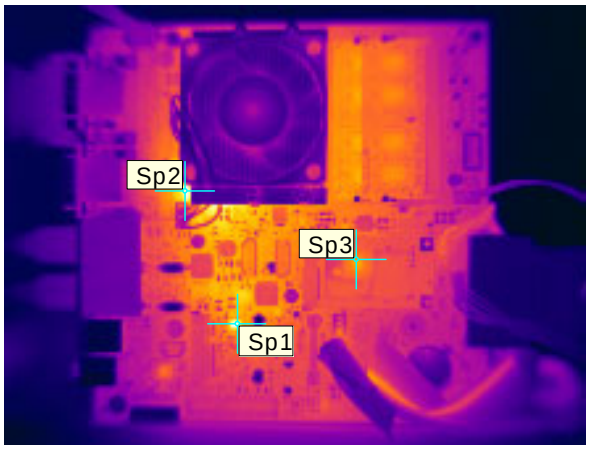
5.2. IR-Images

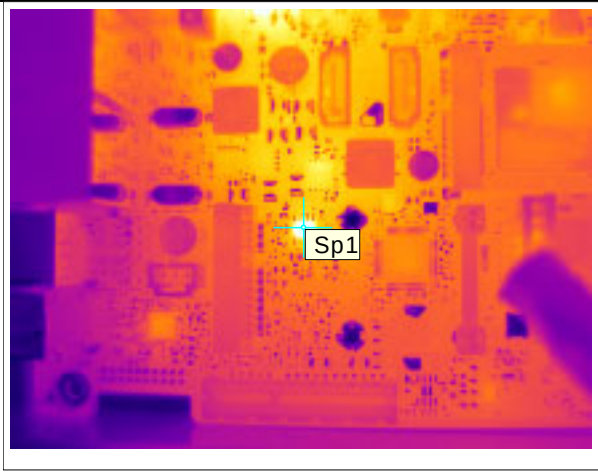
5.2.1. IR-Image



Date	24.09.2013
Filename	1SB13-0007_001.fff
Max Temperature	69.7 °C
Min Temperature	22.7 °C
Emissionsgrad	0.95
Objektabstand	0.5 m
Atmosphärentemperatur	23.0 °C
Relative Luftfeuchtigkeit	35.0 %
Bild Kameratyp	FLIR SC620
Bild Kameraobjektiv	FOL38
Bild Kamerafilter	

Sp1 Temperatur	63.6 °C
Sp2 Temperatur	65.2 °C
Sp3 Temperatur	52.3 °C

5.2.2. IR-Image



Date	24.09.2013
Filename	1SB13-0007_002.fff
Max Temperature	72.0 °C
Min Temperature	25.8 °C
Emissionsgrad	0.95
Objektabstand	0.1 m
Atmosphärentemperatur	23.0 °C
Relative Luftfeuchtigkeit	35.0 %
Bild Kameratyp	FLIR SC620
Bild Kameraobjektiv	FOL19
Bild Kamerafilter	

Sp1 Temperatur	71.3 °C

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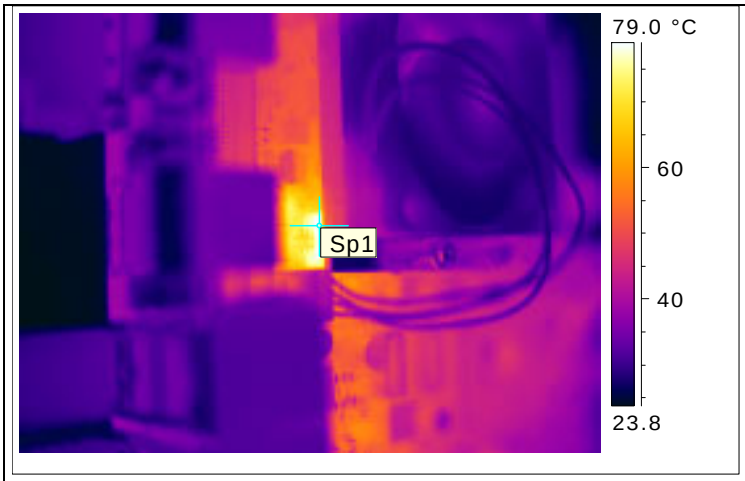
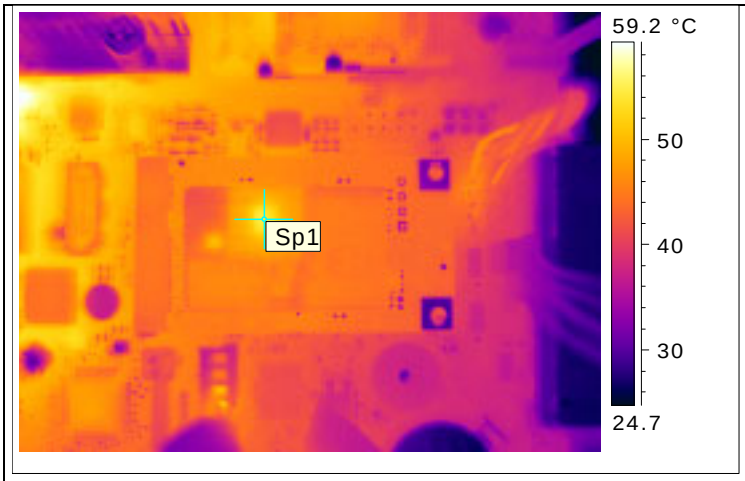
5.2.3. IR-Image



Date	24.09.2013
Filename	1SB13-0007_003.fff
Max Temperature	80.5 °C
Min Temperature	23.6 °C
Emissionsgrad	0.95
Objektabstand	0.1 m
Atmosphärentemperatur	23.0 °C
Relative Luftfeuchtigkeit	35.0 %
Bild Kameratyp	FLIR SC620
Bild Kameraobjektiv	FOL19
Bild Kamerafilter	

Sp1 Temperatur	77.3 °C

5.2.4. IR-Image



Date	24.09.2013
Filename	1SB13-0007_004.fff
Max Temperature	60.1 °C
Min Temperature	24.5 °C
Emissionsgrad	0.95
Objektabstand	0.1 m
Atmosphärentemperatur	23.0 °C
Relative Luftfeuchtigkeit	35.0 %
Bild Kameratyp	FLIR SC620
Bild Kameraobjektiv	FOL19
Bild Kamerafilter	

Sp1 Temperatur	54.7 °C

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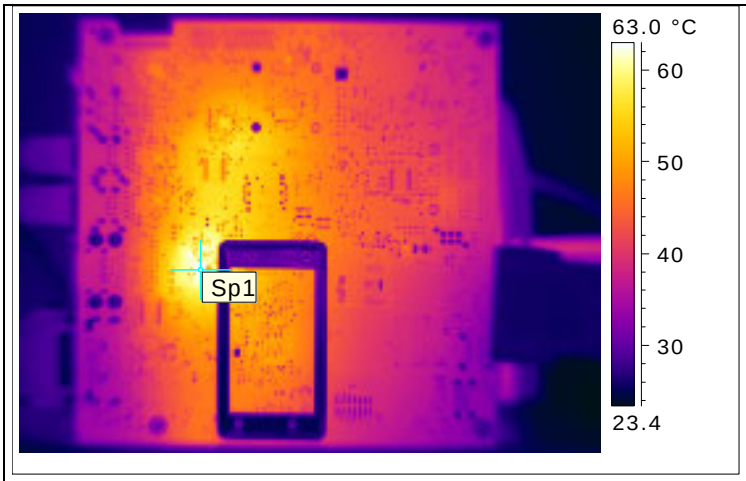
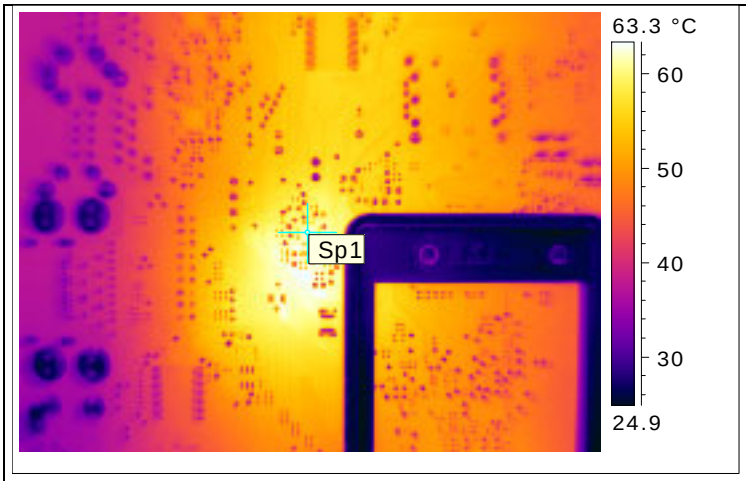
5.2.5. IR-Image



Date	24.09.2013
Filename	1SB13-0007_005.fff
Max Temperature	64.0 °C
Min Temperature	23.3 °C
Emissionsgrad	0.95
Objektabstand	0.5 m
Atmosphärentemperatur	23.0 °C
Relative Luftfeuchtigkeit	35.0 %
Bild Kameratyp	FLIR SC620
Bild Kameraobjektiv	FOL38
Bild Kamerafilter	

Sp1 Temperatur	62.5 °C

5.2.6. IR-Image



Date	24.09.2013
Filename	1SB13-0007_006.fff
Max Temperature	64.2 °C
Min Temperature	24.7 °C
Emissionsgrad	0.95
Objektabstand	0.1 m
Atmosphärentemperatur	23.0 °C
Relative Luftfeuchtigkeit	35.0 %
Bild Kameratyp	FLIR SC620
Bild Kameraobjektiv	FOL19
Bild Kamerafilter	

Sp1 Temperatur	62.5 °C