ASS ST104A Chassis Thermal Evaluation Report ---S2400SC

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Agenda:

Executive Summary

Objectives

System Layout Overview

Mechanical Check list

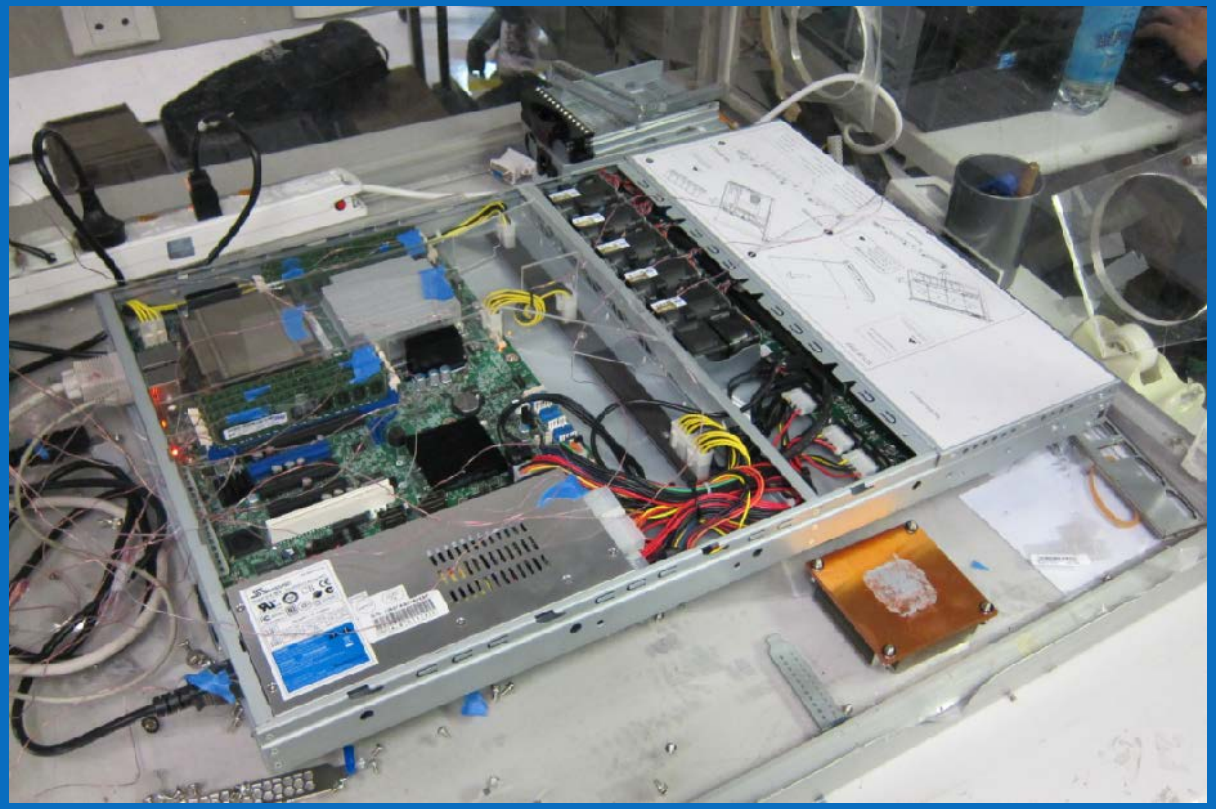
Thermal Test Results

Recommendation

Backup

Executive Summary:

- ✓ Some mounting holes must be changed
- ✓ Chassis with Intel S2400SC passed test

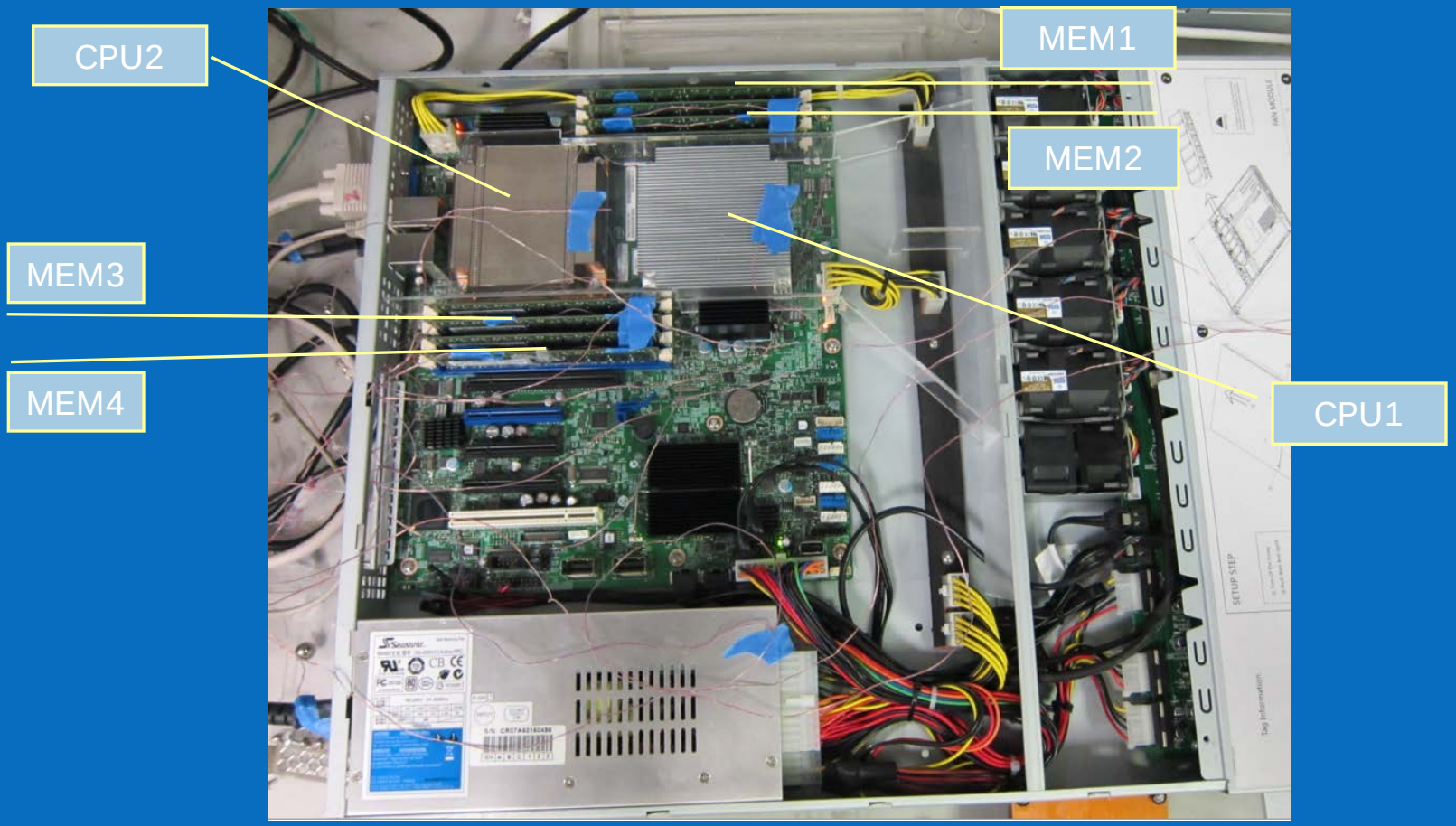


Chassis overview

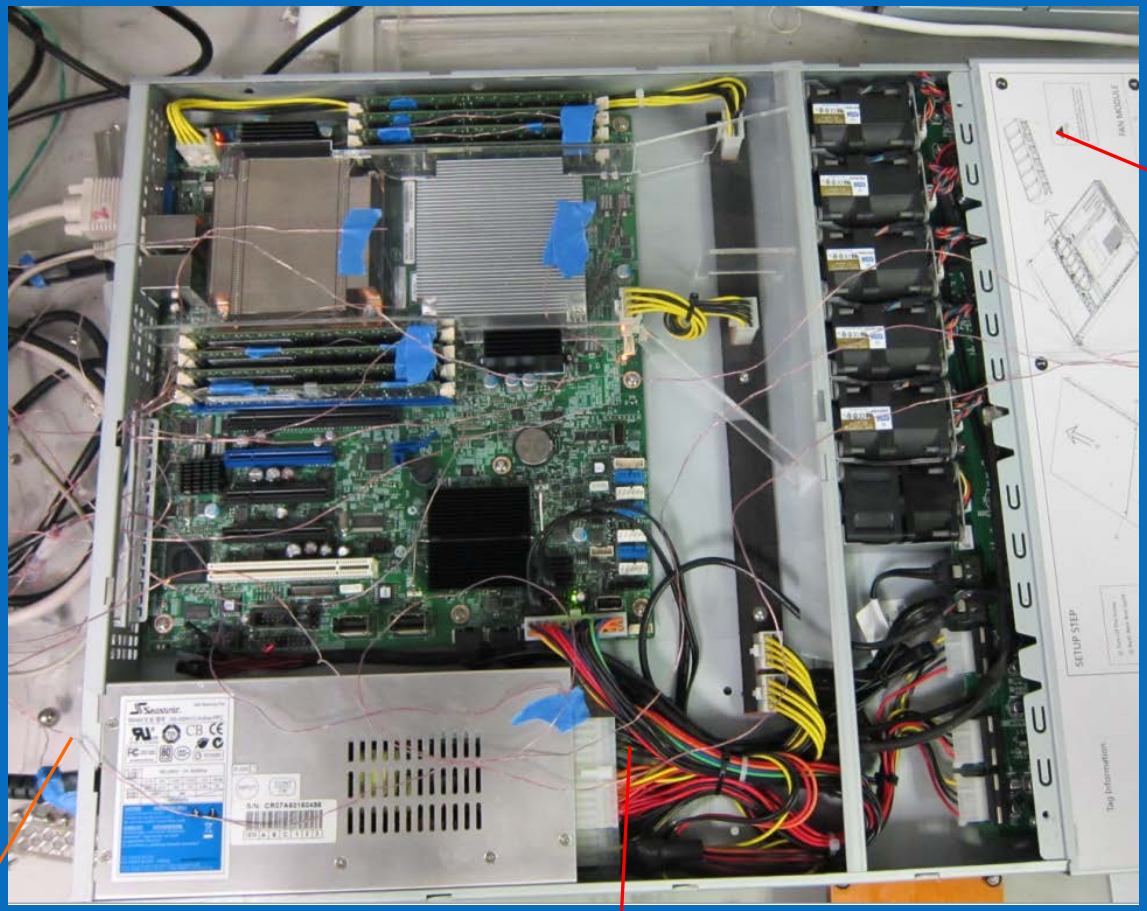
Objective

Evaluate system Mechanical & Thermal capability of the ST104A Rack server chassis to support Romley EN platform by using Mechanical/Thermal test vehicles.

System Layout Overview 1 (S2400SC)



System Layout Overview 3 (S1200BTL)



Mechanical Check Result

Item	Result	Remark
Board mounting check	Pass	
Screw hole alignment check	Pass	
Heat sink mounting check	Pass	
Power supply check	Pass	.
IO shield/gasket fitness check	Pass	
Interference check	Pass	
Cabling check	Pass	
Front panel board function check	Pass	
Riser card/add on card	Pass	
Fan duct/airflow check	Pass	

Thermal Result (S2400SC)

CPU stress test(at 30 ambient temperature)

Thermal result (°C)	Spec (°C)	Measure (°C)	Margin (°C)
CPU1	78	64.78	13.22
CPU2	78	74.75	3.25

Memory Stress test

Component	Target	Read_100%	Margin
DIMM_A1	85	45.46	39.54
DIMM_ABC_inlet	NA	33.8	
DIMM_C2	85	61.5	23.5
DIMM_F1	85	71.66	13.34
DIMM_DEF_inlet	NA	64.2	
DIMM_F2	85	65.3	19.7

Summary and Recommendation

Summary

✓ ASS ST104A meets Intel **S2400SC** thermal configuration.

Recommendation

Back up

Test System configuration

Item	Qty	Manufacturer	Model
Chassis	1	ASS	ST104A
Mother Board	1	Intel	S2400SC
CPU	2	Intel	Sandy Bridge EN 95W 8C
Memory	8	Micro	MT9JSF12872AZ-1G4F1
Hard Driver SATA	2	Seagate	ST3160811AS/160G
CPU heat sink	2	Intel	B2 - 2U Al-Ex Passive (90mmx90mm) x1 E35647-001 B2 - 2U Cu-Al Passive (90mmx90mm) x1 G19994-001

Software Application	Version	Configuration	Remark
PTU for Romley Platform	V1.0	100%	CPU stress
IOmeter	2004.07.30	4 workers	HDD stress

Back up

Chassis information