

LUMIR Harmony in Differences		Non-Conformance Report			Project	DTNE
					NCR No.	DTNE-NCR-014
					NC Date	2020-07-22
					Critical Item	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Title NC Item		DTNPL FM Thermal Vacuum Test Temperature Issue				
		Item Name(Part Name)	DWG No.	Rev	Serial No.	Quantity
		KPLO-DTNPL-SCH	2.0	1012-KB-001F	1	
		Next Higher Assembly	Procedure No.	Rev	Supplier of NC item	
		SBC PBA				
		Subsystem	NC observed location(Org.)		Model	
		DTNPL	KASI 청정실		<input type="checkbox"/> EM <input type="checkbox"/> EQM <input type="checkbox"/> QM <input type="checkbox"/> PFM <input checked="" type="checkbox"/> FM	
Sec. A - Description of Nonconformance		/Ref to Documents :				
NC detected during		A1 - (Non-functional) Discrepancy <input type="checkbox"/> Receiving Insp./Test <input type="checkbox"/> Inspection <input type="checkbox"/> Manufacturing <input type="checkbox"/> Integration <input type="checkbox"/> Assy. Preparation <input type="checkbox"/> Alignment <input type="checkbox"/> Other:		A2 - (Functional) Test Failure/Malfunction/Anomaly <input type="checkbox"/> Qualification Test <input checked="" type="checkbox"/> Acceptance Test <input type="checkbox"/> Function Test <input type="checkbox"/> Other:		
Initiated by		Initiator/QA	Signature	Test Operator/Cognizant Engineer	Signature	
		최재웅	최재웅	김선구		
NC Environment		<input type="checkbox"/> Laboratory <input type="checkbox"/> Ambient Temp/Humidity <input type="checkbox"/> Acoustic Noise <input type="checkbox"/> EMC <input type="checkbox"/> Sine Vibration <input type="checkbox"/> Random Vibration <input type="checkbox"/> Shock <input checked="" type="checkbox"/> Thermal Vacuum/Thermal Cycle (Temp.: °F / °C, Pressure:) <input type="checkbox"/> Other:				
Description(5W1H)						
DTNPL FM의 Thermal Vacuum Test (2020.07.20 ~ 2020.07.24) 중 Chamber 온도가 EV spec과 약간 상이함						
Contract/Subsystem/Equipment Requirements Violated: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Sec. B - Internal MRB Dispositions /Ref to Documents:						
Decisions: DTNPL FM Thermal Vacuum Test 온도 프로파일이 KPLO Environmental Design and Test Specification (KPLO-SP-320-002)의 Acceptance Level과 약간 상이하나 Acceptance Test에 문제가 없을 것으로 판단됨						
Classification <input type="checkbox"/> Major <input checked="" type="checkbox"/> Minor Customer Notification required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Requirements Violated <input type="checkbox"/> RFD <input checked="" type="checkbox"/> RFW <input type="checkbox"/> N/A Doc. No:						
Corrective/Preventive Actions:						
Other related documents(if applicable):						
Disposition For Discrepancy: <input checked="" type="checkbox"/> Use As Is <input type="checkbox"/> Rework <input type="checkbox"/> Repair <input type="checkbox"/> RTV <input type="checkbox"/> Scrap <input type="checkbox"/> Other:		Disposition For Test Failure/Malfunction/Anomaly: <input type="checkbox"/> Retest <input type="checkbox"/> Re-inspect <input type="checkbox"/> SW change <input type="checkbox"/> Other:				
Cause of NC: <input type="checkbox"/> Design <input checked="" type="checkbox"/> Human Error <input type="checkbox"/> Material <input type="checkbox"/> Procedure <input type="checkbox"/> On board Software <input type="checkbox"/> Handling <input type="checkbox"/> Workmanship <input type="checkbox"/> Test Software <input type="checkbox"/> Facility/Equipment <input type="checkbox"/> Jig/Fixture <input type="checkbox"/> Test Procedure <input type="checkbox"/> Other:						
Signatures Name / Signature Date		Quality QA	Engineering	Product Assurance PA	Project Manager PM	
<input type="checkbox"/> Sec. C1 – Customer held MRB MRB No.:		<input type="checkbox"/> Sec. C2 – Customer invited MRB			Sec. D – Closeout	
Decision:						
PA Name/Signature:						
Disposition: <input type="checkbox"/> Use As Is <input type="checkbox"/> Rework <input type="checkbox"/> Repair <input type="checkbox"/> RTV <input type="checkbox"/> Scrap <input type="checkbox"/> Retest <input type="checkbox"/> Re-inspect <input type="checkbox"/> SW change <input type="checkbox"/> Other: Corrective/Preventive Actions:						
Date:						
Signatures Org. Name/Signature Date		Quality	Engineering	PA	PM	Customer

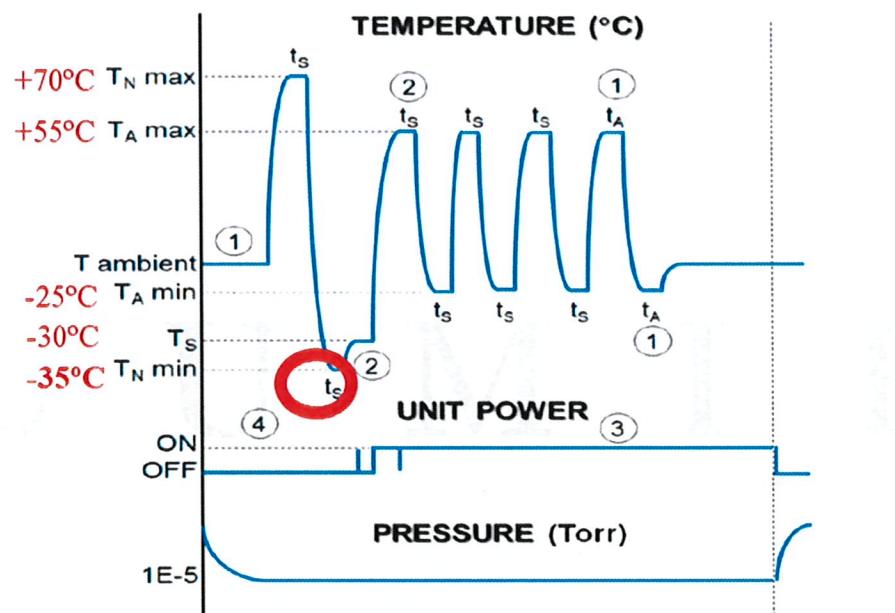
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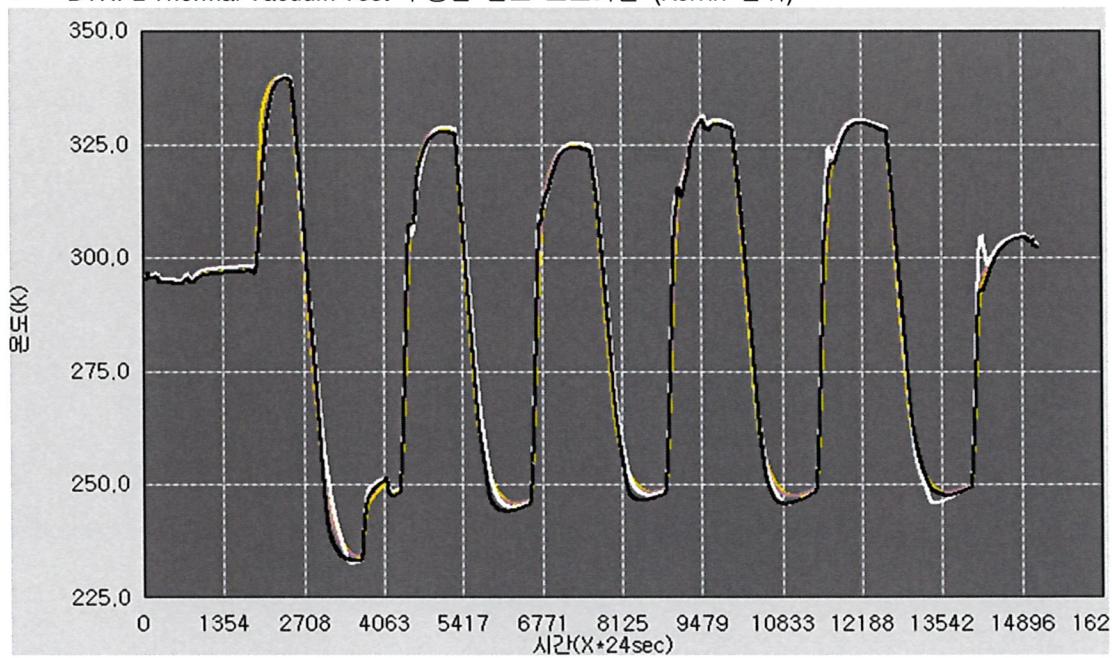
(Continuation Sheet for Any Additional Information and Actions with clear link to the NCR)

→ Description

- KASI에서 진행한 DTNPL FM Thermal Vacuum Test 중 Chamber의 온도가 DTNPL의 EV spec과 다소 상이함을 확인
 - 1st Cold Soak 온도 (T_N)가 더 낮게 내려감 (DTNPL FM은 OFF 상태임)
 - S/B : -35°C
 - Was : -39°C
- DTNPL Thermal Vacuum Test Temperature Cycling EV spec



■ DTNPL Thermal Vacuum Test 수행된 온도 프로파일 (Kelvin 단위)



→ Root cause

- KASI Chamber Operator의 Chamber Control 미흡으로 인한 Human Error 발생

→ Decision 제안

- 현상태 진행 (use as is)

- Thermal Vacuum Test의 온도 프로파일이 DTNPL EV spec과 일부 상이한 부분이 있지만, Acceptance Test와 DTNPL의 기능에 영향이 없는 것으로 판단되어 Waiver 요청
- DTNPL에서 사용하는 부품의 온도 정보를 별도 제출 (부품의 Storage Temperature 재확인)