

Title: *Installation Qualification Protocol*

Document # 730004135

Version # 02

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Test Script #	IQ -02	IQ Test Name:	Site Verification		
Equipment #	TE0084018-1	Equipment Name:	2690/2790 Alliance Heater Cooler Test System		
Installation Site: Flextronics, Singapore					
Purpose: To verify the location in which the test equipment is to be installed is suitable for use. Test Execution: - List additional applicable environmental/input parameters in the Parameters column. Rows may be added as needed. - Using the applicable equipment documentation, define the specification(s) in the Acceptance Criteria column, as appropriate. - Verify and/or measure the applicable parameters and complete the table below. Do not delete any of the listed defined parameters. Enter N/A for any parameter or cell that is not used or applicable. The reason for why the parameter is not used or applicable shall be explained within the corresponding Installation Qualification Report. Objective Evidence: - Completed IQ-02 Test Script Data Sheet - Photo(s) of the work area, as applicable - The source of each Acceptance Criterion shall be referenced in the IQR if stored in SAP. If not in SAP objective evidence specifying the Acceptance Criterion shall be provided in or as an attachment to the IQR. - Copies of calibration certificates for measurement tools, if applicable					
Parameters	Acceptance Criteria	As Found	Pass/Fail	Initial & Date	
Ambient Temperature	4 °C to 40 °C*				
Relative Humidity	20 % to 80 %, Non-Condensing*				
Workspace	Sufficient room for the test station, UUT and service				
Test Station Bench	Large and strong enough to support the station				
Electrical Supply	100 VAC to 240 VAC, 50 Hz/60 Hz				
Electrical Outlets	Minimum of 3 dedicated outlets				
Network Available	Minimum of 1 dedicated network				
Comments: *Ambient Temperature / Relative Humidity requirement is based of the performance specification (WAT270801) of the UUT (refer to SAP). **Electrical Supply requirement is based on the AC power requirements listed in the drawing for the power supply WAT270471 (refer to SAP).					
Overall Test Conclusion			Document No.: _____ Iteration No.: _____ Attachment: _____ Page: ____ of ____		
☐ Pass ☐ Fail					

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Test Script #	IQ-03	IQ Test Name:	Instrumentation Calibration Verification	
Equipment #	TE0084018-1	Equipment Name:	2690/2790 Alliance Heater Cooler Test System	
Installation Site: Flextronics, Singapore				
Purpose: To verify that all critical instruments are in the calibration database and that a calibration and/or a preventive maintenance has been performed, as appropriate. Test Execution: - List all critical instruments/components and/or sub-systems that require calibration and/or preventive maintenance in the Description column. Rows may be added as needed. - Verify that all listed critical instruments/components have had a preventive maintenance and/or calibration performed in accordance with the PM and/or Calibration procedure(s) or by an outside source, and are listed within the associated calibration database, then complete the table below. Objective Evidence: - Completed IQ-03 Test Script Data Sheet - Copies of calibration and/or maintenance certificates - Screen captures from the associated Calibration database				
Description	Asset #	Cal/PM Dates	Initial & Date	
TE0084018 Test Box	TE0084018-1	Last Cal/PM: Cal/PM Due:		
Comments:				
Overall Test Conclusion		Document No.: _____ Iteration No.: _____ Attachment: _____ Page: ____ of ____		
☐ Pass ☐ Fail				

Test Script # IQ-05	IQ Test Name: General Safety and Alarms		
Equipment # TE0084018-1	Equipment Name: 2690/2790 Alliance Heater Cooler Test System		
Installation Site: Flextronics, Singapore			
Purpose: To verify that the equipment can operate in a safe manner, within its designated location.			
Test Execution: - List any additional safety related conditions or alarms in the Safety Inspection column, such as: guarding, interlocks, thermal or mechanical safety, chemical, secured gas tanks, restart or power loss, emergency stop, environmental exhaust, electrical safety, noise, safety labels, etc. Rows may be added as needed. EH&S shall be consulted as necessary. - List the associated safety requirement(s)/specification(s) in the Acceptance Criteria column. - Perform an inspection/test of the equipment to assess its safety related conditions, then complete the table below.			
Objective Evidence: - Completed IQ-05 Test Script Data Sheet - Photo(s) of the secured glass bottles, tanks, etc., if applicable - The source of any applicable Acceptance Criterion shall be summarized in the IQR if stored in SAP. If the source is not stored in SAP, at a minimum the page specifying the applicable Acceptance Criterion shall be provided as an attachment.			
Safety Inspection	Acceptance Criteria	Pass/Fail	Initial & Date
Mechanical Safety/ Pinch Points/Sharp Edges	None Found (or mitigated appropriately)		
Comments:			
Overall Test Conclusion		Document No.: _____ Iteration No.: _____ Attachment: _____ Page: ____ of ____	
☐ Pass ☐ Fail			

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Test Script # IQ-06	IQ Test Name: Functional Verification		
Equipment # TE0084018-1	Equipment Name: 2690/2790 Alliance Heater Cooler Test System		
Installation Site: Flextronics, Singapore			
Purpose: To verify that the system operates as expected.			
Test Execution: - Select the UUT(s) or tests to be performed as defined within the Installation Qualification Section of 730001835. - List the Part Number and Serial Number, if applicable, in the UUT Part Number/Serial Number column. - Define the appropriate Acceptance Criteria within the Acceptance Criteria column. - Perform a test of the UUT(s), verify the Acceptance Criteria, then complete the table below. If an associated Test Record is being used as objective evidence the Header/Footer information should be verified for accuracy.			
Objective Evidence: - Completed IQ-06 Test Script Data Sheet - Copy of the Test Record(s) for the UUT(s), as applicable - The UUT(s) selected for this Test Script and the reasoning for why it/they were selected shall be summarized within the associated Installation Qualification Report. - If this Acceptance Criteria is other than "All required CTQ Specification measurements result in a Pass" then it shall be summarized within the associated VAF, Process Validation Plan, and/or Installation Qualification Report. - For systems that download firmware to product the BOM showing the firmware requirement shall be provided within the IQR.			
UUT Part Number/Serial Number	Acceptance Criteria	Pass/Fail	Initial & Date
Part Number: 289000560 Serial Number:	All required CTQ Specification measurements result in a Pass		
Comments:			
Overall Test Conclusion		Document No.: _____ Iteration No.: _____ Attachment: _____ Page: ____ of ____	
☐ Pass ☐ Fail			

Appendix A: TRAINING RECORD

Document #	735004582	Document Title	Test Specification and Procedure, Alliance Heater Cooler Test	Version	00
				Revision	A

☐ Read and Understood (If self-trained – If not self-trained this section can be deleted)

By signing you acknowledge that you have reviewed, understand, and agree to comply with the policies and practices of the procedure defined above.

Printed Name	Signature	Initials	Date

Print multiple copies of this Training Record Template as needed

Document No.: _____
 Iteration No.: _____
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