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COMMERCIAL-IN-CONFIDENCE

STATEMENT OF TEST

CLIENT	CP Cases Ltd Unit 11 Worton Hall Ind. Estate Worton Road Isleworth Middlesex TW7 6ER	DOCUMENT	75936072 THC 02 Issue 1
		CLIENT'S ORDER NUMBER	233644, 28 July 2016

INCOMING RELEASE NOTE	Not released
DATE OF RECEIPT	23 August 2016
TEST ITEM(S)	CP Cases AMAZON shock-mounted transit rack. External dimensions: 583 x 870 x 684mm. Weight: 24.5kg. It is configured with CV2 19" shock-mounted chassis, 12 units high and 610mm deep. A 65.45kg dummy payload is securely rack-mounted onto the front & rear vertical chassis rails. Gross weight: 89.95kg.

NUMBER OF ITEMS TESTED	One
MODEL/PART NUMBER(S)	Case reference number AR1261-0707
SERIAL NUMBER(S)	None issued
TEST PLAN / ISSUE / DATE	N/A

TEST SPECIFICATION / ISSUE / DATE	CLAUSE	TEST
MIL-STD-810G, 31 October 2008 Environmental Engineering Considerations and Laboratory Tests	Method 514.6, Vibration. Procedure I, General vibration, Category 4, Common carrier	1. Random vibration, Figure 514.6C-1 & Table 514.6C-II
MIL-STD-810G, 31 October 2008 Environmental Engineering Considerations and Laboratory Tests	Method 514.6, Vibration. Procedure II, Loose cargo transportation, Annex C, Category 5 - truck/trailer - loose cargo	2. Loose cargo (bounce), Figure 514.6C-4
MIL-STD-810G, w/Change 1, 15 April 2014, Environmental Engineering Considerations and Laboratory Tests	Method 516.7, Shock. Procedure IV, Drops	3. Transit drop, Table 516.7-VII

DEVIATIONS TO TEST SPECIFICATION	None
DATE OF TEST	23 August to 25 August 2016
TEST(S) DESCRIPTION	To subject the AMAZON case to random vibration, loose cargo (bounce) and transit drop testing. See Page 2 for details.
RESULT(S) OF TEST	This certificate relates only to the actual item tested

Pre-Test Inspection: The initial visual inspection was performed by the customer representative. The customer indicated that the test piece began testing in good condition.

Approved by: 

Gareth Stephens
 Authorised Signatory



Date: 6 September 2016



RESULT(S) OF TEST (continued)

Tests	Test Results and Customer Comments
Test 1. Random vibration	Test completed satisfactorily. No damage or degradation reported at pre-test or post-axis inspections.
Test 2. Loose cargo (Bounce)	Test completed satisfactorily. One of the latches caught on the top edge of the wooden barrier early in the test. A second latch also damaged during the post-test inspection. Both latches were located on the same end panel. No other damage or degradation reported.
Test 3. Transit drop	Test completed satisfactorily. Following the eight drops no damage or degradation was reported. No deterioration was observed inside the unit. No cracks or disconnection noted externally.

TEST(S) DESCRIPTION

All tests were performed at the Fareham site

Axis Definition:

X-axis: Longitudinal (Horizontal), Y-axis: Transverse (Horizontal), Z-axis: Top & Bottom (Vertical).
All testing performed with respect to gravity.

Test 1. Random vibration

- Test duration: 1 hour/axis.
- Strap case to shaker surface.

Vertical		Transverse		Longitudinal	
Freq (Hz)	PSD (g ² /Hz)	Freq (Hz)	PSD (g ² /Hz)	Freq (Hz)	PSD (g ² /Hz)
10	0.01500	10	0.00013	10	0.00650
40	0.01500	20	0.00065	20	0.00650
500	0.00015	30	0.00065	120	0.00020
rms = 1.04g		78	0.00002	121	0.00300
		79	0.00019	200	0.00300
		120	0.00019	240	0.00150
		500	0.00001	340	0.00003
			rms = 0.20g		500
		rms = 0.74g			

Test 2. Loose cargo (Bounce)

- Test duration: 20 mins.
- Test axis: Z-axis vertical - base only.
- Test bed: Steel plate.
- Locate EUT loosely within wooden barriers onto the bounce machine.
- Test motion: Circular synchronous motion (1.00" pk-to-pk displacement at 5Hz).
- The table barriers shall be erected with an all round clearance between them and the vertical surfaces of the test specimen of between 50mm and 75mm. The top edge of the uppermost barrier shall be 50 (± 25mm) below the top of the test items and not more than 600mm from the surface of the table.

Test 3. Transit drop

- Drop height category: 45.4kg - 90.8kg, largest case dimension under 910mm.
- Drop height: 760mm to case corners (8 off).
- Test surface: Steel plate.