



EMVCO LEVEL 1 ICC TERMINAL

DEBUGGING SESSION TESTS

Reference: EMV2000 book 1 version 4.0

N°T08RAP07-11-1
Version: 2.0

Vendor Name: HAMBURG Industries CO., LTD.
Address: 6F, No. 12, Lane 270, Sec. 3,
Pei Shen Rd., Shen Keng Hsiang,
Taipei county 222, Taiwan

Models of the Socket: ICA-610 & ICA-617 & ICA-659
& ICA-663 & ICA-669 & ICA-673
& ICA-679 & ICA-853

Date of the session: July / 11 / 2008



Edited by:	Approved by:

TABLE OF CONTENTS

1	INFORMATION SECTION _____	3
	<i>Identification of the Laboratory, the IFM Provider, the samples and the Specifications</i>	
2	TEST BENCH _____	4
	<i>Identification of the test bench</i>	
3	SUMMARY OF TEST RESULT _____	5
4	DETAIL TEST SUMMARY RESULT _____	6
4.1	Mechanical Test _____	6
	<i>Verdict of the test, comments, and references of the electronic traces</i>	

ANNEX A

Results of the mechanical test "IFM contact forces" N°1111

REVISION HISTORY

Date	Version	Author	Comments
July 11, 2008	1.0	J.CHUANG	Initial Version
July 18, 2008	2.0	J.CHUANG	ANNEX A

1 INFORMATION SECTION

I. Laboratory identification :	FIME ASIA Suite 807, 8 Fl., No. 2, Lane 150, Sec 5, Shin-Yi Rd. Shin-Yi Chiu, Taipei, TAIWAN, R.O.C
Campaign location :	FIME ASIA Suite 807, 8 Fl., No. 2, Lane 150, Sec 5, Shin-Yi Rd. Shin-Yi Chiu, Taipei, TAIWAN, R.O.C
II. IFM* provider identification :	HAMBURG Industries CO., LTD.
III. IFM sample units identification :	
Brand :	HAMBURG Industries CO., LTD.
Models :	ICA-610 & ICA-617 & ICA-659 & ICA-663 & ICA-669 & ICA-673 & ICA-679 & ICA-853
Verifying that the IFM has an appropriate label :	CE: ☐ FCC: ☐ Other: ☐ No label: ☒
Date of reception :	July/11/2008
V. Specifications :	Tests performed according to the specifications described in : IC Card Specifications for Payment Systems, [EMV2000-version 4.0, December 2000] ICC Terminal Type Approval : Test Bench Description - Executable Tests, [TBD/EXE/T01 Version 3.2 - March 1, 2004] ICC Terminal Type Approval : Test Bench Description - Executable Tests - Version 3.2 - Erratum, [TBD/EXE/E01 Version 3.2_3 - June 2006] ICC Terminal Type Approval : Test Bench Description - General principles and Electrical and Mechanical tests, [TBD/GEN/T01, Version 3.1 - October 8, 2004] ICC Terminal Type Approval : Test Bench Description - General principles and Electrical and Mechanical tests - Application Note, [TBD/GEN/A01, Version 3.1_1 - June 13, 2006] ICC Terminal Type Approval : Implementation Conformance Statement, [Appendix 4 of EMVCo Type Approval Terminal Level 1 Administrative process v4.0, 26 February 2003] Guidelines for electrical , functional and mechanical tests, [02GUI05-04-2]

* IFM : Interface Module

2 TEST BENCH

The following device was used for conducting the tests :

Measurement Contact Forces :

Brand :	FIME / LCI
Model or Type :	Systeme PRACX
Serial Number :	99033
Tolerance :	± 0.1 N



3 SUMMARY OF TEST RESULT

The following codification is used in this test report:

Code	Verdict
PASS	Passed Test
FAIL	Failed Test
N/T	Not Tested
INC	Inconclusive
N/I	Not Implemented

Test Category	Result summary	Test number*
Mechanical Test	PASS	

* only if the Result summary is different of PASS

Reference: T08RAP07-11-1 - v: 2.0
Form: 02FOR13-03-1 v: 9.0

4 *DETAIL TEST SUMMARY RESULT*

Code	Verdict
PASS	Passed Test
FAIL	Failed Test
N/T	Not Tested
INC	Inconclusive
N/I	Not Implemented

4.1 *Mechanical Test*

Mechanical Test	Result	Comments	Files with the traces			
1111-000	PASS	IFM contact forces The result is given in ANNEX A	☐ rep	☐ tp1	☐ tp2	☐ tp3

END OF DOCUMENT

ANNEX A

Contact Forces Test Results

(Including 5 pages)

Mechanical Test Results

Results of the mechanical test "IFM contact forces" N°1111.

All the results must be between 0.2 N and 0.6 N (+/- 0.1 N)

ICA-610

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.30	0.28	0.30	0.293
C2	0.38	0.38	0.38	0.38
C3	0.24	0.24	0.24	0.24
C4	0.34	0.36	0.36	0.353
C5	0.28	0.26	0.26	0.267
C6	0.36	0.36	0.34	0.353
C7	0.34	0.34	0.34	0.34
C8	0.38	0.38	0.38	0.38

ICA-617

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.24	0.24	0.24	0.24
C2	0.30	0.30	0.30	0.3
C3	0.18	0.18	0.18	0.18
C4	0.24	0.26	0.26	0.253
C5	0.20	0.20	0.20	0.2
C6	0.24	0.24	0.24	0.24
C7	0.24	0.26	0.26	0.253
C8	0.28	0.26	0.28	0.273

ICA-659

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.22	0.22	0.22	0.22
C2	0.20	0.18	0.20	0.193
C3	0.18	0.18	0.18	0.18
C4	0.24	0.24	0.24	0.24
C5	0.26	0.26	0.26	0.26
C6	0.30	0.30	0.30	0.3
C7	0.30	0.30	0.30	0.3
C8	0.22	0.22	0.24	0.227

ICA-663

Upper Slot

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.28	0.28	0.28	0.28
C2	0.28	0.28	0.30	0.287
C3	0.24	0.24	0.24	0.24
C4	0.28	0.28	0.28	0.28
C5	0.24	0.24	0.24	0.24
C6	0.30	0.30	0.32	0.307
C7	0.32	0.30	0.32	0.313
C8	0.36	0.38	0.38	0.373

Lower Slot

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.26	0.26	0.26	0.26
C2	0.30	0.30	0.30	0.3
C3	0.24	0.24	0.24	0.24
C4	0.26	0.26	0.26	0.26
C5	0.26	0.24	0.24	0.247
C6	0.32	0.32	0.32	0.32
C7	0.32	0.34	0.32	0.327
C8	0.36	0.38	0.36	0.367

ICA-669

Upper Slot

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.42	0.42	0.42	0.42
C2	0.24	0.22	0.20	0.22
C3	0.26	0.22	0.20	0.227
C4	0.44	0.42	0.42	0.427
C5	0.46	0.46	0.46	0.46
C6	0.44	0.44	0.44	0.44
C7	0.44	0.44	0.44	0.44
C8	0.56	0.58	0.58	0.573

Lower Slot

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.28	0.26	0.28	0.273
C2	0.20	0.20	0.18	0.193
C3	0.22	0.22	0.20	0.213
C4	0.30	0.30	0.30	0.3
C5	0.28	0.26	0.26	0.267
C6	0.34	0.32	0.32	0.327
C7	0.36	0.34	0.34	0.347
C8	0.44	0.38	0.40	0.407

ICA-673

Upper Slot

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.30	0.30	0.30	0.3
C2	0.32	0.32	0.32	0.32
C3	0.24	0.24	0.24	0.24
C4	0.28	0.28	0.26	0.273
C5	0.26	0.28	0.28	0.273
C6	0.32	0.32	0.32	0.32
C7	0.32	0.32	0.32	0.32
C8	0.36	0.36	0.36	0.36

Lower Slot

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.34	0.36	0.34	0.347
C2	0.36	0.36	0.36	0.36
C3	0.32	0.32	0.32	0.32
C4	0.32	0.34	0.34	0.333
C5	0.38	0.38	0.38	0.38
C6	0.48	0.48	0.50	0.487
C7	0.46	0.46	0.46	0.46
C8	0.52	0.54	0.54	0.533

ICA-679

Upper Slot

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.32	0.32	0.34	0.327
C2	0.26	0.26	0.26	0.26
C3	0.28	0.28	0.30	0.287
C4	0.38	0.38	0.38	0.38
C5	0.34	0.36	0.36	0.353
C6	0.40	0.42	0.42	0.413
C7	0.42	0.44	0.44	0.433
C8	0.48	0.52	0.52	0.507

Lower Slot

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.22	0.22	0.22	0.22
C2	0.16	0.18	0.18	0.173
C3	0.22	0.22	0.22	0.22
C4	0.26	0.26	0.26	0.26
C5	0.20	0.20	0.20	0.2
C6	0.26	0.26	0.26	0.26
C7	0.26	0.28	0.26	0.267
C8	0.32	0.32	0.32	0.32

ICA-853

Contact	Measurement 1 (N)	Measurement 2 (N)	Measurement 3 (N)	Average (N)
C1	0.30	0.30	0.30	0.3
C2	0.36	0.36	0.36	0.36
C3	0.26	0.26	0.24	0.253
C4	0.30	0.30	0.30	0.3
C5	0.42	0.42	0.42	0.42
C6	0.48	0.46	0.46	0.467
C7	0.48	0.48	0.48	0.48
C8	0.56	0.56	0.56	0.56