













新北市汐止區新台五路一段81號10樓之六 10F-6, No.81, Sec.1, Xintai 5th Rd., Xizhi-Dist., New Taipei City 221, Taiwan, R.O.C. TEL 886 2 2698 7028 FAX 886 2 2698 7078 WEBSITE www.attend.com.tw

TEST REPOTR OF PRODUCT SPECIFICATION

Series	125A-78C00 125B-78C00	File	125-Series_test	Date	2016/11/15
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INTRODUCTION:

Testing was performed on the MXM CONNECTOR SERIES to determine if it meets the requirements of Product Specification (125-Series_SPEC)

CONCLUSION:

As a result of testing, all the tested values are meeting the requirements of Product Specification (125-Series_SPEC), proving the tested products are successfully acceptable.

TEST SAMPLE:

MXM CONNECTOR 230P 7.8H / MXM3 CONNECTOR 314P 7.8H

P/N: 125A-78C00 / 125B-78C00

SAMPLE QUANTITY

Test Item	Conn. Qty.	Measurement Qty.	Note
Examination of Product	1	All pos.	_
Low level contact resistance	1	10 pos.	_
Mating/Unmating Force	1	All pos.	_
Dielectric withstanding voltage	1	1 pair	
Insulation Resistance	1	1 pair	
Durability	1	All pos.	_
Durability (Preconditioning)	1	All pos.	_
Vibration	1	All pos.	_
Mechanical Shock	1	All pos.	_
Solder Peg Retention Force	1	10 pcs.	_
Contact Retention Force	1	10 pcs.	_
Humidity Temperature Cycling	1	All pos.	_
Thermal Shock	1	All pos.	
Temperature Life	1	All pos.	
Temperature Life (Preconditioning)	1	All pos.	-
Reseating	1	All pos.	_
Reflow Soldering Heat Resistance	10	All pos.	
Solderability	5	All pos.	_

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TEST SEQUENCE:

Test Item					Te	st Gr	oup			
		В	С	D	Ε	F	G	Н		J
Examination of Product	1	1,7	1,8	1,5	1	1,7	1,10	1,8	1,3	1,3
Low level contact resistance		2,6	2,5,7	2,4			2,5,7, 9	2,5,7		
Mating/Unmating Force		3,5								
Dielectric withstanding voltage						2,5				
Insulation Resistance						3,6				
Temperature rise	2									
Durability		4								
Durability (Preconditioning)			3				3	3		
Vibration			6							
Mechanical Shock				3						
Solder Peg Retention Force					2					
Contact Retention Force					3					
Humidity Temperature Cycling						4	6			
Thermal Shock							4			
Temperature Life								4		
Temperature Life (Preconditioning)			4							
Reseating							8	6		
Reflow Soldering Heat Resistance									2	
Solderability										2

TEST RESULT:

Group-A

A-1 Examination of Product

Spec: Must comply with product drawing.

Result: Abnormality isn't admitted by a sample.

Judgment: Acceptable Temperature Rise

Spec: 30℃ Max change allowed at rated current.

Result:

SAMPLE	Initial	Final	$\Delta^{\circ}\!\mathbb{C}$
125A-78C00	24.2℃	26.2℃	2℃
125B-78C00	24.2℃	27.7℃	3.5℃



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Group-B

B-1 Examination of Product

Spec: Must comply with product drawing.

Result: Abnormality isn't admitted by a sample.

Judgment: Acceptable

B-2 Low Level Contact Resistance

Spec: $40m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Initial	10	27.1	29.6	28.31	0.856

Judgment: Acceptable

MXM3 CONNECTOR (125B-78C00) 314P

	Condition	n	min	max	ave	Sig
ĺ	Initial	10	27.2	28.6	27.62	0.402

Judgment: Acceptable

B-3 Mating/Unmating Force

MXM CONNECTOR(125A-78C00) 230P

Spec: Mating Force : 13N max.

Unmating Force: 16N max.

Result:

Condition	cycle	min	max	ave	sig
mating	#1 to #5	9.4864	9.9176	9.6824	0.1780
unmating	#1 to #5	3.9886	4.3414	4.1297	0.1501

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Spec: Mating Force: 25N max.

Unmating Force: 28N max.

Result:

Condition	cycle	min	max	ave	sig
mating	#1 to #5	20.972	21.952	21.3444	0.3978
unmating	#1 to #5	8.82	9.4668	9.0787	0.2605

Judgment: Acceptable

B-4 Durability

Spec: No evidence of physical damage.

Result: No damage.



Judgment: Acceptable

B-5 Mating/Unmating Force

MXM CONNECTOR(125A-78C00) 230P

Spec: Mating Force: 13N max.

Unmating Force: 16N max.

Result:

Condition	cycle	min	max	ave	sig
mating	#26 to #30	8.9768	8.9964	8.9885	0.0107
unmating	#26 to #30	3.7534	3.773	3.7651	0.0107

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Spec: Mating Force: 25N max.

Unmating Force: 28N max.

Result:

Condition	cycle	min	max	ave	sig
mating	#26 to #30	20.4232	20.482	20.4467	0.0214
unmating	#26 to #30	8.5064	8.526	8.5103	0.0087

Judgment: Acceptable

B-6 Low Level Contact Resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Final	10	33.0	36.6	34.8	1.292

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	34.0	36.5	35.47	0.759

Judgment: Acceptable

B-7 Examination of Product

Spec: Must comply with product drawing.

Result: Abnormality isn't admitted by a sample.



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Group-C

C-1 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judgment: Acceptable

C-2 Low Level Contact Resistance

Spec: $40 \text{ m}\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Initial	10	21.8	23.0	22.37	0.380

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Initial	10	21.6	22.8	22.25	0.338

Judgment: Acceptable

C-3 Durability(Preconditioning)

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable

C-4 Temperature Life (Preconditioning)

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable

C-5 Low Level Contact Resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Final	10	22.6	2.48	23.89	0.579

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	23.1	26.3	24.52	0.993



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C-6 Vibration

Spec: No evidence of physical damage.

No electrical discontinuity greater than 1µsec shall occur.

Result: No damage. Electrical discontinuity greater than 1 µ second did not occurred.

Judgment: Acceptable

C-7 Low Level Contact Resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Final	10	25.3	27.6	26.57	0.750

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	23.5	26.5	25.11	1.062

Judgment: Acceptable

C-8 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judgment: Acceptable

Group-D

D-1 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judgment: Acceptable

D-2 Low Level Contact Resistance

Spec: $40m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Initial	10	21.4	23.4	22.29	0.541

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P



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Condition	n	min	max	ave	sig
Initial	10	21.6	23.4	22.42	0.562

Judgment: Acceptable

D-3 Mechanical Shock

Spec: No evidence of physical damage.

No electrical discontinuity greater than 1µsec shall occur.

Result: No damage.

Electrical discontinuity greater than 1 μ second did not occurred.

Judgment: Acceptable

D-4 Low Level Contact Resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Final	10	21.3	24.3	22.36	0.869

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	21.90	23.50	22.63	0.463

Judgment: Acceptable

D-5 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judgment: Acceptable

Group-E

E-1 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judgment: Acceptable

E-2 Solder Peg Retention Force

Spec: 5N /pos Min.

Result:

MXM CONNECTOR(125A-78C00) 230P



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n	min	max	ave	sig
10	40.47	41.45	40.93	0.356

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

n	min	max	ave	sig
10	40.38	41.06	40.62	0.187

Judgment: Acceptable

E-3 Contact Retention Force

Spec: 1N /pos Min.

Result:

MXM CONNECTOR(125A-78C00) 230P

	n	min	max	ave	sig
Upper contact	10	5.98	7.06	6.36	0.346
Lower contact	10	1.47	2.16	1.76	0.232

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

	n	min	max	ave	sig
Upper contact	10	5.39	7.06	6.08	0.455
Lower contact	10	1.86	2.45	2.17	0.172

Judgment: Acceptable

Group-F

F-1 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judamont: Accontable

Judgment: Acceptable

F-2 Dielectric withstanding voltage

Spec: No evidence of flash over or insulation shall take place. No evidence of

physical damage.

Result: Dielectric strength of all tested samples proved acceptable.

And, detrimental damage affecting to the performance did not occur.



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Judgment: Acceptable

F-3 Insulation Resistance

Spec: $250M\Omega$ min.

Result: Insulation resistance of the tested sample proved acceptable more than

measuring limit (9999M Ω).

And, detrimental damage affecting to the performance did not occur.

Judgment: Acceptable

F-4 Cycling Temperature & Humidity

Spec: No evidence of physical damage.

Result: I Detrimental damage affecting to the performance did not occur.

Judgment: Acceptable

F-5 Dielectric withstanding voltage

Spec: No evidence of flash over or insulation shall take place. No evidence of

physical damage.

Result: Dielectric strength of all tested samples proved acceptable.

And, detrimental damage affecting to the performance did not occur.

Judgment: Acceptable

F-6 Insulation Resistance

Spec: 50MΩ min.

Result: Insulation resistance of the tested sample proved acceptable more than

measuring limit (9999M Ω).

And, detrimental damage affecting to the performance did not occur.

Judgment: Acceptable

F-7 Examination of Product

Spec: Must comply with product drawing.

Result: Abnormality isn't admitted by a sample.

Judgment: Acceptable

Group-G

G-1 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judgment: Acceptable

G-2 Low Level Contact Resistance

Spec: $40m\Omega$ max.

Result:



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MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Initial	10	23.4	26.3	24.74	0.977

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Initial	10	23.4	26.3	24.61	0.964

Judgment: Acceptable

G-3 Durability(Preconditioning)

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable

G-4 Thermal Shock

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable

G-5 Low level contact resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Final	10	26.2	27.8	27.06	0.474

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	26.3	27.8	27.10	0.410

Judgment: Acceptable

G-6 Humidity Temperature Cycling

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable

G-7 Low Level Contact Resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P



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Condition	n	min	max	ave	sig
Final	10	27.5	29.2	28.37	0.525

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	27.6	29.5	28.52	0.540

Judgment: Acceptable

G-8 Reseating

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable

G-9 Low Level Contact Resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Final	10	28.4	29.9	29.28	0.440

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	28.3	29.8	29.05	0.450

Judgment: Acceptable

G-10 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judgment: Acceptable

Group-H

H-1 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.



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H-2 Low Level Contact Resistance

Spec: $40m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Initial	10	21.8	23.0	22.37	0.380

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Initial	10	21.6	22.8	22.25	0.338

Judgment: Acceptable

H-3 Durability(Preconditioning)

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable

H-4 Temperature Life

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable

H-5 Low Level Contact Resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Final	10	33.0	36.6	34.8	1.292

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	34.0	36.5	35.47	0.759

Judgment: Acceptable

H-6 Reseating

Spec: No evidence of physical damage.

Result: No damage. Judgment: Acceptable



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H-7 Low Level Contact Resistance

Spec: $50m\Omega$ max.

Result:

MXM CONNECTOR(125A-78C00) 230P

Condition	n	min	max	ave	sig
Final	10	38.2	44.9	40.53	2.129

Judgment: Acceptable

MXM3 CONNECTOR(125B-78C00) 314P

Condition	n	min	max	ave	sig
Final	10	39.5	44.5	41.68	1.342

Judgment: Acceptable

H-8 Examination of Product

Spec: Must comply with product drawing. Rest: Abnormality isn't admitted by a sample.

Judgment: Acceptable

Group-I

I-1 Examination of Product

Spec: Must comply with product drawing.

Result: Abnormality isn't admitted by a sample.

Judgment: Acceptable

I-2 Reflow Soldering Heat Resistance

Spec: No evidence of physical damage.

Result: All tested samples should no evidence of defects such as deformation etc.

that are detrimental to connector function. Soldering was good for all test

samples.





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I-3 Examination of Product

Spec: Must comply with product drawing.

Result: Abnormality isn't admitted by a sample.

Judgment: Acceptable

Group-J

J-1 Examination of Product

Spec: Must comply with product drawing.

Result: Abnormality isn't admitted by a sample.

Judgment: Acceptable

J-2 Solderability

Spec: Solder coverage 95% MIN.

Result: All tested samples proved acceptable after testing, with more than 95% of

the tested area covered with fresh, wet solder in glossy, bright appearance.

Judgment: Acceptable





J-3 Examination of Product

Spec: Must comply with product drawing.

Result: Abnormality isn't admitted by a sample.