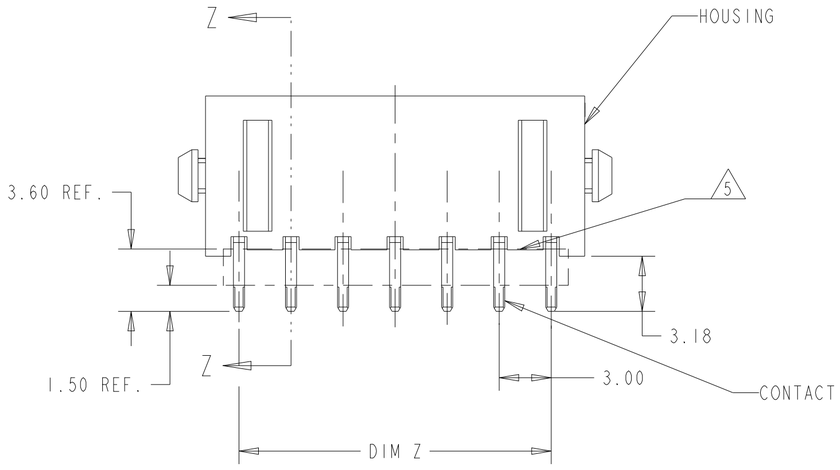
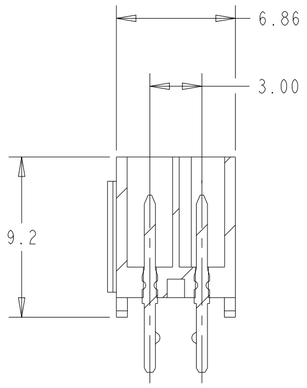
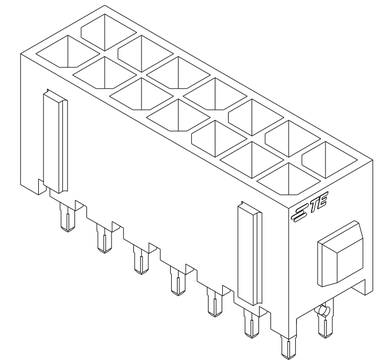
THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION -
© COPYRIGHT 20 BY - ALL RIGHTS RESERVED.

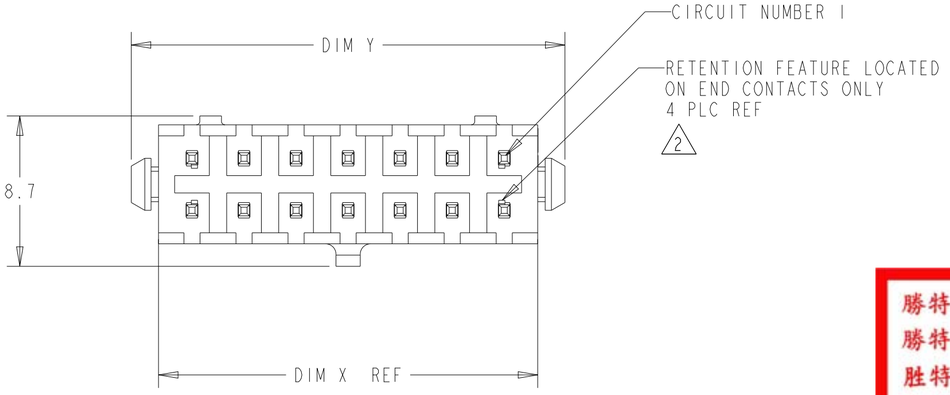
REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
	E1	REVISED PER ECR-16-011494	21JUN2017	NK	CX
	E2	ECO-19-006502	25APR2019	AP	WLS
	E3	REVISED PER ECN-20-100750	10DEC2020	WLS	VS
	E4	REVISED PER ECN-23-240910	27NOV2023	WLS	VS





SECTION Z-Z





1. MATERIAL: HOUSING - UL 94V-0 RATED HIGH TEMP. , NYLON, COLOR BLACK.
   CONTACT - BRASS.
2. MAXIMUM INSERTION 30 LBS.
3. RECOMMENDED BOARD THICKNESS 1.57.
4. FINISHING: CONTACT - 0.38µm MINIMUM GOLD ON MATING AREA.
   2.54µm MINIMUM MATTE TIN ON SOLDER TAILS.
   ALL OVER 1.27µm MINIMUM NICKEL.
5. CUTTING AREA REGION, NO PLATING IS PRESENT.
6. COUNTERPART RECOMMENDED IS PN 794617 (DASH ACCORDING TO NUMBER OF POSITION).
7. FOR REELING DIRECTION AND PACKAGING TYPE, SEE SPECIFICATION 114-13000.

勝特力電材超市-龍山店 886-3-5773766
勝特力電材超市-光復店 886-3-5729570
胜特力电子(上海) 86-21-34970699
胜特力电子(深圳) 86-755-83298787
http://www.100y.com.tw

	40.00	33.00	36.86	24	5-794631-4
OBSOLETE	~~37.00~~	~~30.00~~	~~33.86~~	~~22~~	~~5-794631-2~~
OBSOLETE	~~34.00~~	~~27.00~~	~~30.86~~	~~20~~	~~5-794631-0~~
	31.00	24.00	27.86	18	4-794631-8
	28.00	21.00	24.86	16	4-794631-6
OBSOLETE	~~25.00~~	~~18.00~~	~~21.86~~	~~14~~	~~4-794631-4~~
	22.00	15.00	18.86	12	4-794631-2
	19.00	12.00	15.86	10	4-794631-0
	16.00	9.00	12.86	8	3-794631-8
	13.00	6.00	9.86	6	3-794631-6
	10.00	3.00	6.86	4	3-794631-4
	7.00	-	3.86	2	3-794631-2
	DIM Y	DIM Z	DIM X	NO. OF POSN.	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm[INCHES]

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±-
2 PLC ±0.20 [.008]
3 PLC ±-
4 PLC ±-
ANGLES ±1°

MATERIAL 1 FINISH 4

DWN B. HAYMAKER 16AUG99
CHK K. COBLE 16AUG99
APVD K. COBLE 16AUG99
PRODUCT SPEC 108-1836
APPLICATION SPEC 114-13000
WEIGHT -

TE Connectivity

NAME VERTICAL HEADER ASSEMBLY, THRU HOLE, 15 GOLD, DUAL ROW, MICRO MATE-N-LOK™

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A2	00779	C-794631	-

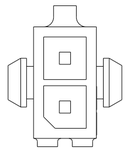
CUSTOMER DRAWING | SCALE 4:1 | SHEET 1 OF 2 | REV E4

794631

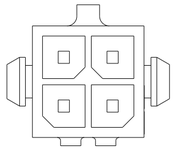
THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION -
© COPYRIGHT 20 BY - ALL RIGHTS RESERVED.

REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-

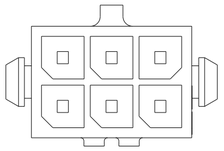
2 POS.



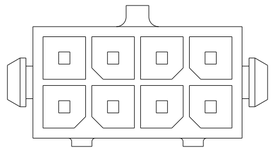
4 POS.



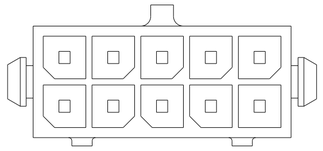
6 POS.



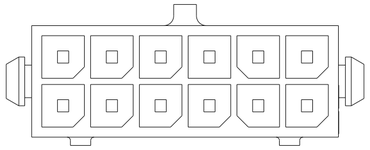
8 POS.



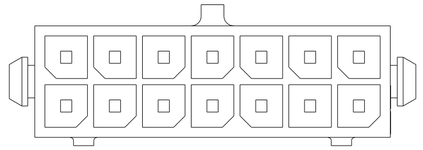
10 POS.



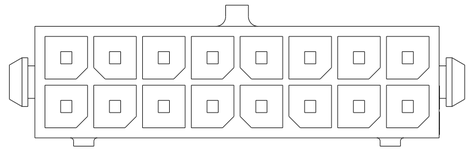
12 POS.



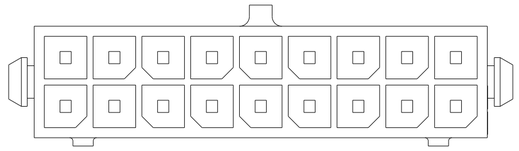
14 POS.



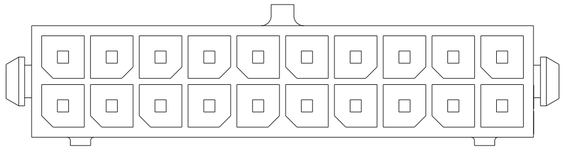
16 POS.



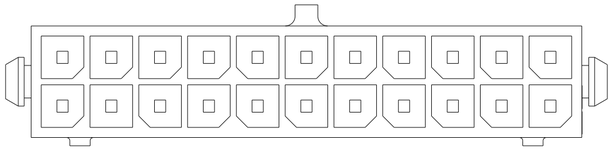
18 POS.



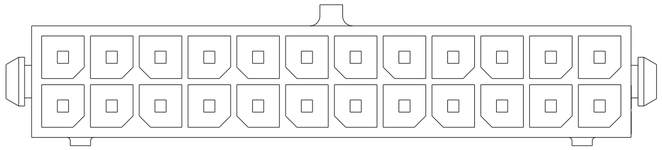
20 POS.



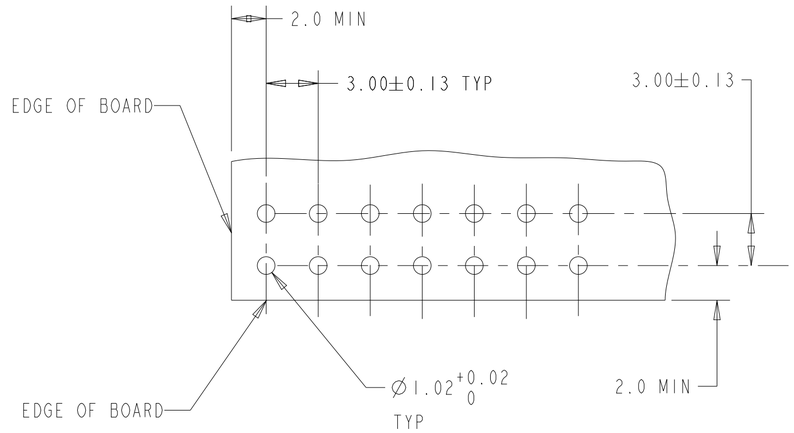
22 POS.



24 POS.



KEYING BY POSITION SIZE



RECOMMENDED MOUNTING HOLE PATTERN 3

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm[INCHES]

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±-
2 PLC ±0.20 [.008]
3 PLC ±-
4 PLC ±-
ANGLES ±1°

MATERIAL -
-

FINISH -
-

DWN	B. HAYMAKER 16AUG99
CHK	K. COBLE 16AUG99
APVD	K. COBLE 16AUG99
PRODUCT SPEC	108-1836
APPLICATION SPEC	114-13000
WEIGHT	-

TE Connectivity

NAME: VERTICAL HEADER ASSEMBLY, THRU HOLE, 15 GOLD, DUAL ROW, MICRO MATE-N-LOK

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A2	00779	C-794631	-

CUSTOMER DRAWING | SCALE 3:1 | SHEET 2 OF 2 | REV E4

3 mm Micro MATE-N-LOK* Connector

1. SCOPE

1.1. Content

This specification covers performance, tests and quality requirements for the 3 mm Micro MATE-N-LOK* connector family. This connector family has wire-to-board and wire-to-wire configurations. The connectors are available in 2 to 24 positions in a double row configuration, and 2 to 12 positions in a single row configuration, with both configurations using 20 to 30 AWG wire.

1.2. Qualification

When tests are performed on the subject product line, procedures specified in Figure 1 shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

1.3. Qualification Test Results

Successful qualification testing on the subject product line was completed on 16Jan02. The Qualification Test Report number for this testing is 501-526. This documentation is on file at and available from Engineering Practices and Standards (EPS).

2. APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

2.1. TE Connectivity (TE) Documents

- 109-197: Test Specification (TE Test Specifications vs EIA and IEC Test Methods)
- 501-526: Qualification Test Report (3 mm Micro MATE-N-LOK* Connector)
- 502-139105: Engineeering test report (Resistance to soldering heat)

2.2. Commercial Standard

EIA-364: Electrical Connector/Socket Test Procedures Including Environmental Classifications

3. REQUIREMENTS

3.1. Design and Construction

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing.

3.2. Materials

Materials used in the construction of this product shall be as specified on the applicable product drawing.

3.3. Ratings

- Voltage: 250 volts AC or DC
- Current: See Figure 1 for applicable current carrying capability
- Temperature: -40 to 105℃

3.4. Test Requirements and Procedures Summary

Unless otherwise specified, all tests shall be performed at ambient environmental

© 2016 TE Connectivity family of companies
All Rights Reserved
| Indicates Change

*Trademark. TE Connectivity, TE connectivity (logo), and TE (logo) are trademarks. Other logos, product, and/or company names may be trademarks of their respective owners.

Test Description	Requirement	Procedure
Initial examination of product.	Meets requirements of product drawing.	EIA-364. Visual and dimensional (C of C) inspection per product drawing.
Final examination of product.	Meets visual requirements.	EIA-364. Visual inspection.
	ELECTRICAL	
Termination resistance.	20 milliohms maximum.	EIA-364-23. Subject specimens to 100 milliamperes maximum and 20 millivolts maximum open circuit voltage. See Figure 3.
Insulation resistance.	1000 megohms initial. 100 megohms final.	EIA-364-21. Test between adjacent contacts of mated specimens.
Dielectric withstanding voltage.	1 minute hold with no breakdown, flashover, or 0.5 milliampere maximum leakage.	EIA-364-20, Condition I. 1500 volts AC at sea level. Test between adjacent contacts of mated specimens.
Temperature rise vs current.	30℃ maximum temperatur e rise at specified current (100% energized). Wire Size (AWG) / Connector Position / Amperes 20 / 2 to 6 / 5 20 / 8 to 24 / 4.25 28 / 2 to 20 / 2 28 / 22 to 24 / 1.8	EIA-364-70, Method 1. Stabilize at a single current level until 3 readings at 5 minute intervals are within 1℃.
	MECHANICAL	
Solderability, dip test.	Solderable area shall have a minimum of 95% solder coverage.	EIA-364-52, Category 3 For thru-hole. EIA-638 for surface mount. Subject contacts to solderability.
Heat Resistance to Reflow Soldering.	See note	TEC-109-201 Subject contacts to reflow soldering.
Crimp tensile.	Wire Size (AWG) / Crimp Tensile (kg [lb] minimum) 20 / 7.95 [17.5] 22 / 5.00 [11] 24 / 3.60 [7.9] 26 / 2.05 [4.5] 28 / 1.40 [3.1] 30 / 0.77 [1.7]	EIA-364-8. Determine crimp tensile at a maximum rate of 25 ± 6 mm [0.98 ± 0.24 in] per minute.

Figure 1 Cont.

Test Description	Requirement	Procedure
Vibration, random.	No discontinuities of 1 microsecond or longer duration. See Note.	EIA-364-28, Test Condition VII, Condition D. Subject mated specimens to 3.10 G's rms between 20-500 Hz. 15 minutes in each of 3 mutually perpendicular planes. See Figure 4.
Mechanical shock.	No discontinuities of 1 microsecond or longer duration. See Note.	EIA-364-27, Method A. Subject mated specimens to 50 G's half-sine shock pulses of 11 milliseconds duration. 3 shocks in each direction applied along 3 mutually perpendicular planes, 18 total shocks. See Figure 4.
Durability.	See Note.	EIA-364-9. Mate and unmate specimens for 30 cycles for tin plated specimens, 75 cycles for 15 µin gold plated specimens, and 150 cycles for 30 µin gold plated specimens at a maximum rate of 500 cycles per hour.
Header contact retention.	Contact shall not dislodge. See Note.	EIA-364-29. Apply an axial load of 1.4 kg [3.1 lb] to contacts at a rate of 0.45 kg [1 lb] per second and hold for 6 seconds.
Crimp contact retention.	Contact shall not dislodge. See Note.	EIA-364-29. Apply an axial load of 1.81 kg [4 lb] to contacts at a rate of 0.45 kg [1 lb] per second and hold for 6 seconds.
Crimp contact insertion force.	0.7 kg [1.5 lb] maximum. See Note.	TE Spec 109-41. Measure force necessary to insert crimped contacts into housing.
Mating force (contacts only).	0.7 kg [1.5 lb] maximum per contact.	EIA-364-13. Measure axial force necessary to mate specimens without locking latches at a maximum rate of 5.08 mm [.2 in] per minute.
Unmating force (contacts only).	0.07 kg [0.15 lb] minimum per contact.	EIA-364-13. Measure axial force necessary to unmate specimens without locking latches at a maximum rate of 12.7 mm [.5 in] per minute.
Housing lock strength.	2.7 kg [6 lb] minimum.	EIA-364-98. Determine housing lock strength at a maximum rate of 12.7 mm [0.5 in] per minute.

Figure 1 Cont.

Test Description	Requirement	Procedure
ENVIRONMENTAL		
Thermal shock.	See Note.	EIA-364-32, Test Condition VIII. Subject specimens to 5 cycles between -40 and 105℃.
Humidity/temperature cycling.	See Note.	EIA-364-31, Method III. Subject specimens to 10 cycles (10 days) between 25 and 65℃ at 80 to 100% RH.
Temperature life.	See Note.	EIA-364-17, Method A, Test Condition 4, Test Time Condition C. Subject mated specimens to 105℃ for 500 hours.
Mixed flowing gas.	See Note.	EIA-364-65, Class IIA. Subject mated specimens to environmental Class IIA for 20 days.

NOTE
Shall meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification and Requalification Test Sequence shown in Figure 2.

Figure 1 (end)

1.1. Product Qualification and Requalification Test Sequence

Test or Examination	Test Group (a)					
	1	2	3	4	5	6
	Test Sequence (b)					
Initial examination of product	1	1	1	1	1	1
Termination resistance	3,7	2,6				
Insulation resistance			3,7			
Dielectric withstanding			4,8			
Temperature rise vs current		3,7				
Solderability, dip test				2		
Heat Resistance to Reflow Soldering						2
Crimp tensile					2	
Vibration, random	5					
Mechanical shock	6					
Durability	4					
Header contact retention			10(c)			
Crimp contact retention			11			
Crimp contact insertion force			2			
Mating force (contacts only)	2					
Unmating force (contacts	8					
Housing lock strength			9			
Thermal shock			5			
Humidity/temperature cycling		4(d)	6			
Temperature life		5				
Mixed flowing gas		4(d)				
Final examination of product	9	8	12	3	3	3

NOTE

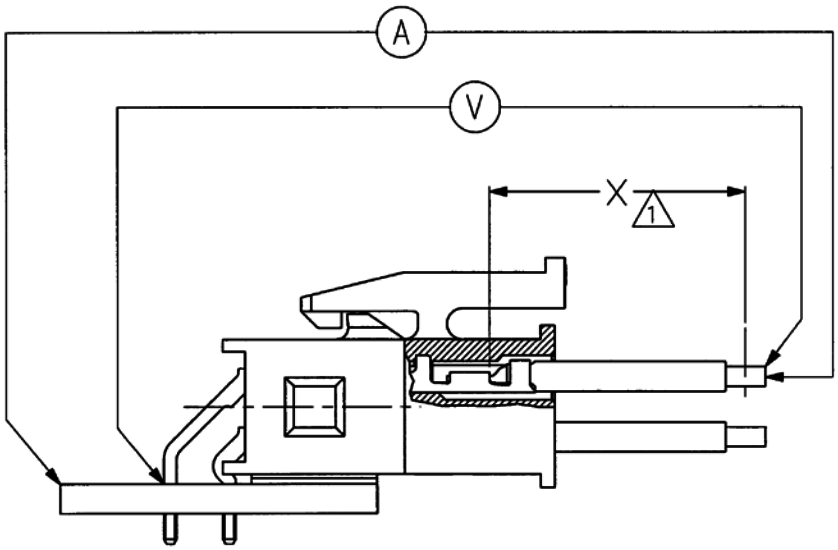
a. *Specimens shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production. All test groups shall each consist of a minimum of 5 specimens.*

b. *Numbers indicate sequence in which tests are performed.*

c. *Test omitted when testing wire-to-wire connectors.*

d. *The fourth test in this sequence will be either humidity/temperature cycling for tin plated specimens or mixed flowing gas for gold plated specimens. Precondition specimens with 10 cycles of durability.*

Figure 2



NOTE
Resistance due to X length of wire is to be removed from all readings.

Figure 3
Termination Resistance Measurement Points

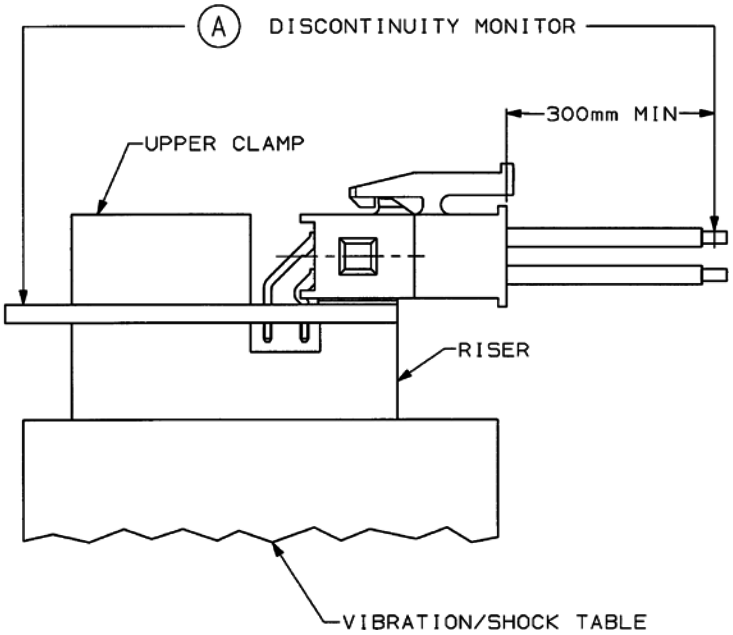


Figure 4
Vibration & Mechanical Shock Mounting Fixture

勝特力電材超市-龍山店 886-3-5773766
勝特力電材超市-光復店 886-3-5729570
胜特力电子(上海) 86-21-34970699
胜特力电子(深圳) 86-755-83298787
http://www.100y.com.tw