

朝貴電子股份有限公司 CKM ELECTRONICS CO., LTD.

# **PRODUCT SPECIFICATION**

# **CKM 9956 SERIES**

# Ø2.20~ Ø 2.50mm BOARD IN TERMINAL

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#### **REVISION HISTORY:**

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A	INTERIM EDITION	2015/5/20	Jimmy Wang
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PS-9956001		Jimmy Wang	Sun Lee	Angus Chen			



#### 1. SCOPE

This specification contains the test requirement of subject connectors when tested under the condition and procedure with terminals crimped on the specified maximum size wire. ;

### 2. APPLICABLE STANDARDS

MIL - STD - 202 MIL - STD - 1344 JIS C0020, C0021, C0025 JIS C5028 JIS C5402

Methods for test of connectors for electronic equipment Test methods for electrical connectors

#### 3. APPLICABLE SERIES NO: 9956 SERIES

Product Name	Part No.
Terminal	99560301 99560302

# 4. PRODUCT SHAPE, DIMENSIONS AND MATERIALS

\*See attached drawings.

### 5. ACCOMMODATED P.C. BOARD

5.1 Thickness: 1.6 mm (.063 ")5.2 P.C. Board Layout: See attached drawings

#### 6. RATINGS

6.1 Current rating: 9.0A (AWG #14) 7.0A (AWG #16)

5.0A (AWG #18)

6.2 Voltage rating: 250V AC, DC

6.3 Temperature range:-40°C to +105°C

6.4 Applicable wire: AWG #14 to #18, Insulation O.D.: 3.05~3.75mm Max.

#### 7. PERFORMANCE REQUIREMENTS AND TEST DESCRIPTIONS

The product is designed to meet the electrical, mechanical and environmental performance Requirements as specifics in **8. REQUIREMENTS.** 

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PS-9956001	Jimmy Wang	Jimmy Wang Sun Lee An		ən		



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Examination of Product		EMENT	PROCEDU	RE	
Product		ents of product	Per EIA-364-18		
	drawing. No ph	ysical damage.	Visual inspection		
	ELECI	RICAL REQU	REMENT		
Contact	$10m\Omega$ Max (Initial	1)	Dry circuit of DC 20 mV	max., 10 mA	
Resistance	$20m\Omega$ Max (Final)	)	max.(JIS C5402 5.4)		
	MECHA	ANICAL REOU	IREMENT		
Torminal arimn				ply axial	
-		) kgi Min.			
			of 25±3 mm/minute (Basedu	ipon JIS	
ě	AWU # 16. 9.0	0	,		
			-		
Insertion	1.2kgf Max.		, <b>1</b>	ed 25±3 mm	
Force					
Terminal					
	1.5kgf Min.				
Force		•	Retention speed 25±3 mm per minute.		
	ENVIRON	MENTAL REQ	UIREMENTS		
8.6 Temperature Final Temp 105°C max.		C max	Then carried the rated current		
rise	rinai remp 103	C max.		TCIIt	
	No damage		105 ±2°C 96 hours(IIS (	20021/	
Heat aging Contact resistance. MIL-STD-202 method 108 A					
Less than twice of		of initial condition $A$ )			
	$20 \mathrm{m}\Omega$ Max (Fina	l)			
			40±2°C, 90~95% RH, 96	hours	
	Appearance: No	damage	measurement must be taken within		
Humidity	Contact resistanc	-			
	$20m\Omega$ Max (Fina	l)	after tested (JIS C0020/M	IL-STD-202,	
			method 103 B, condition	B)	
			Five cycle consists of (II)	S C0025)	
	Appearance. No		•	/	
	11	0			
cycling				min.	
	Ferminal crimp Fensile Strength Ferminal nsertion Force Ferminal Retention Force Femperature ise Heat aging	MECHA   MECHA   Ferminal crimp   Fensile   AWG # 14: 15.0   AWG # 16: 12.0   AWG # 16: 12.0   AWG # 18: 9.0   Ferminal   nsertion   Force   Ferminal   Retention   Force   Ferminal   Retention   Force   Ferminal   Retention   Force   Final Temp 105°   No damage   Contact resistanc   Less than twice of   20mΩ Max (Final   Humidity   Appearance: No   Contact resistanc   20mΩ Max (Final	MECHANICAL REQUMECHANICAL REQUFerminal crimpAWG # 14: 15.0 kgf Min. AWG # 16: 12.0 kgf Min. AWG # 18: 9.0 kgf Min.Ferminal nsertionAWG # 18: 9.0 kgf Min.Ferminal nsertion1.2kgf Max.ForceForceFerminal Retention1.5kgf Min.ForceFinal Temp 105°C max.Femperature iseFinal Temp 105°C max.Heat agingNo damage Contact resistance: Less than twice of initial 20mQ Max (Final)HumidityAppearance: No damage Contact resistance: 20mQ Max (Final)Femperature cyclingAppearance: No damage Contact resistance: 20mQ Max (Final)	MECHANICAL REQUIREMENTFerminal crimpFerminal nsertionAWG # 14: 15.0 kgf Min. AWG # 16: 12.0 kgf Min. AWG # 18: 9.0 kgf Min.Fix the crimped terminal, ap pull out force on the wire at of 25±3 mm/minute (Basedu C5402 6.22)Ferminal nsertion1.2kgf Max.Press the crimped terminal a P.C.Board, Retention spect per minute.Ferminal Retention1.5kgf Min.Press the crimped terminal a Apply axial pull out force the terminal assembled in Retention speed 25±3 mmFerminal roce1.5kgf Min.Apply axial pull out force the terminal assembled in Retention speed 25±3 mmFemperature iseFinal Temp 105°C max.Then carried the rated cur Ontact resistance: Less than twice of initial 20mQ Max (Final)HumidityAppearance: No damage Contact resistance: 20mQ Max (Final)105 ±2°C , 96 hours(JIS C MIL-STD-202,method 10 condition A)HumidityAppearance: No damage Contact resistance: 20mQ Max (Final)five cycle consists of :(JIS (1)-40°C+0 / -03°C, ~ 30 (2) 25°C, ~ 3 min.	



8.10	Salt spray	Appearance: No damage Contact resistance: 20mΩ Max (Final)	Temperature: 35±2°C Solution: 5±1% Spray time: 12±2 Hours Measurement must be taken after water rinse(JIS C5402 7.1/MIL-STD-202, method 101 D, condition B)
8.11	Solder ability	Minimum: 95% of immersed area	Lead-Free Process for Wave Solding: Soldering time: 3±0.5 second Soldering pot: 245±5°C

# 9. PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE

	Test Group								
Test or Examination	А	В	С	D	Е	F	G	Н	Ι
		Test Sequence (a)							
Examination of Product	1	1	1	1,5	1,5	1,5	1,5	1,5	1
Contact Resistance	2	2	2	2,4	2,4	2,4	2,4	2,4	2
Terminal crimp Tensile strength	3								
Terminal Insertion Force		3							
Terminal Retention Force			3						
Temperature Rise				3					
Heat aging					3				
Humidity						3			
Temperature cycling							3		
Salt spray								3	
Solder ability									3
Sample Size	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs

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