Product Specification :	ISSUED BY:	Engineering Dept
Subject : 1.50mm Pitch SCT1501 Series Connector Specification	Date Issued	2013/05/21
	Date Revised	2013/07/15

This specification is referred to the 1.50mm series wire to board connector

INDEX

Product Specification:	ISSUED BY:	Engineering Dept
Subject : 1.50mm Pitch SCT1501 Series Connector Specification	Date Issued	2013/05/21
	Date Revised	2013/07/15

1. Scope

This Specification Covers the 1.50mm Pitch SCT1501 Series Connector Specification.

2. Spec and Part number

Specification	Production No.	Picture of Product
Terminal	SCT1501TPS126	NONE
Housing	SCT1501H-xxBWT102	NONE
Wafer	SCT1501WR-xxG0BE102 SCT1501WV-xxG0BE102	NONE

3. Disposal of Material and surface

Specification		Materials	Disposal of Surface
Terminal		Phosphor Bronze	Tin Plated: Over 70μ″ .Nickel: Over 30μ″ .
Housing		PA66	UL 94V-0
Wafer	Base	High Temperature Plastic	UL 94V-0
	PIN	Brass	Over Tin 70μ″ /Over 30μ″ Nickel
	Solder tab	Brass	Over Tin 70μ″ /Over 30μ″ Nickel

(Please Refer to the Project drawing for the above Specification)

4. Ratings and applicable wires

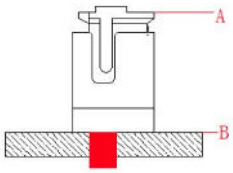
Item	Standard	
Rated Voltage (Max.)	50V	[AC/DC]
Rated Current (Max.)	1.0A	
Ambient temperature Range	-25℃~+85℃	
Applicable wire insulation O.D	AWG 26#~32# Insulation O.D. 1.20mm(Max.)	

*Including terminal temperature rise.

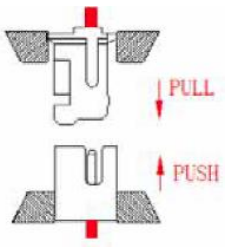
Product Specification :	ISSUED BY:	Engineering Dept
Subject : 1.50mm Pitch SCT1501 Series Connector Specification	Date Issued	2013/05/21
	Date Revised	2013/07/15

5. PERFORMANCE

5-1. Electrical Performance.

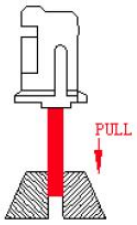
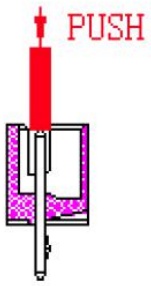
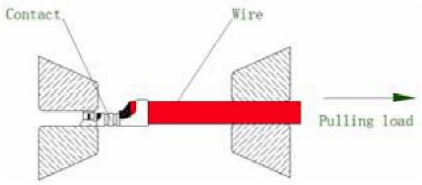
Item		Test Condition	Requirement
5-1-1	Contact Resistance	Mate connectors, measure by dry circuit, 20mV MAX, 10mA. (Based upon EIA-364-06A). 	Initial: 20 milliohms Max. After Test: 30 milliohms Max.
5-1-2	Insulation Resistance	Mate connectors, apply 500V DC between adjacent terminal or ground. (Based upon EIA-364-21B/MIL-STD-202 Method 302 Cond.B)	500 Megohms Min.
5-1-3	Dielectric Strength	Mate connectors, apply 500V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A/MIL-STD-202 Method 301)	No Breakdown and Flashover
5-1-4	Contact resistance on crimped portion	Crimp the applicable wire on to the terminal measure by dry circuit 20mV MAX, 10mA.	10 milliohms Max.

5-1. Electrical Performance

Item		Test Condition	Requirement
5-2-1	Insertion & Retention Force	Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute. 	Refer to paragraph 6

Product Specification:	ISSUED BY: Engineering Dept	
Subject: 1.50mm Pitch SCT1501Series Connector Specification	Date Issued	2013/05/21
	Date Revised	2013/07/15

5-2. Mechanical Performance.

Item		Test Condition	Requirement
5-2-2	Terminal /Housing Retention Force	Apply axial pull out force at the rate of 25.4±3mm/minute terminal assembled in the housing. 	6.86N {0.7kgf} Min.
5-2-3	Terminal Insertion Force	Insert the crimped terminal into the housing.	9.8N {1.0kgf} Max.
5-2-4	Pin Retention Force	Apply axial push force at the speed of 25.4±3mm/minute. 	9.8N {1.00kgf} Min.
5-2-5	Tensile strength (Crimped connections)	Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part). 	AWG# #28 #30 #32 Spec.kgf. Min. 1.0 0.5 0.3 Note> As for unspecified wire sizes in this specification define values with clients

5-3. Environmental Performance and Others.

Item		Test Condition	Requirement	
5-3-1	Repeated Insertion/ Withdrawal	When mated up to 50 cycles repeatedly by the rate of 10 cycles per minute.	Contact Resistance	30 milliohms Max.

Product Specification:	ISSUED BY:	Engineering Dept
Subject: 1.50mm Pitch SCT1501Series Connector Specification	Date Issued	2013/05/21
	Date Revised	2013/07/15

Item		**Test Condition**	**Requirement**	
5-3-2	Temperature Rise	Carrying rated current load. (UL 1977)	Temperature rise	30℃ Max.
5-3-3	Vibration	Amplitude: 1.5mm P-P Sweep time: 10~55~10 HZ in 1 minute Duration: 2 hours in each X.Y.Z axials. (Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A)	Appearance	No Damage
			Contact Resistance	30 milliohms Max.
			Discontinuity	1 micro-second Max.
5-3-4	Shock	490m/s^2{50G}, 3 strokes in each X.Y.Z. axes. (Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond.A)	Appearance	No Damage
			Contact Resistance	30 milliohms Max.
			Discontinuity	1 micro-second Max.
5-3-5	Heat Resistance	85±2℃,96 hours. (Based upon MIL-STD-202 Method 108A Cond.A)	Appearance	No Damage
			Contact Resistanc	30milliohms Max.
5-3-6	Cold Resistance	-25±5℃,96 hours. (Based upon EIA-364-105)	Appearance	No Damage
			Contact Resistanc	30milliohms Max.
5-3-7	Humidity	Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)	Appearance	No Damage
			Contact Resistance	30milliohms Max.
			Dielectric Strength	Must meet 5-1-3
			Insulation Resistance	100Megohms Min.
5-3-8	Temperature Cycling	5 cycles of: a) -55℃30 minutes. b) +85℃30 minutes. (Based upon EIA-364-32B)	Appearance	No Damage
			Contact Resistance	30milliohms Max.

Product Specification:	ISSUED BY: Engineering Dept	
Subject: 1.50mm Pitch SCT1501 Series Connector Specification	Date Issued	2013/05/21
	Date Revised	2013/07/15

Item		Test Condition	Requirement	
5-3-9	Salt Spray	24±1 hours exposure to a salt spray from the 5±1% solution at 35±2℃. (Based upon EIA-364-26A/MIL-STD-202 Method 101D Cond.B).	Appearance	No Damage
			Contact Resistance	30milliohms Max.
5-3-10	Solder-ability	Soldering Time: 5±0.5second. Solder Temperature: 245±5℃. (Based upon EIA-364-52)	Solder Wetting	95% of immersed area must show no voids, pin holes.
5-3-11	Solder-Resistance	Soldering time:5~10 sec solder. Temperature:250+5/-5℃. (Based upon EIA-364-56A)	Appearance	No Damage

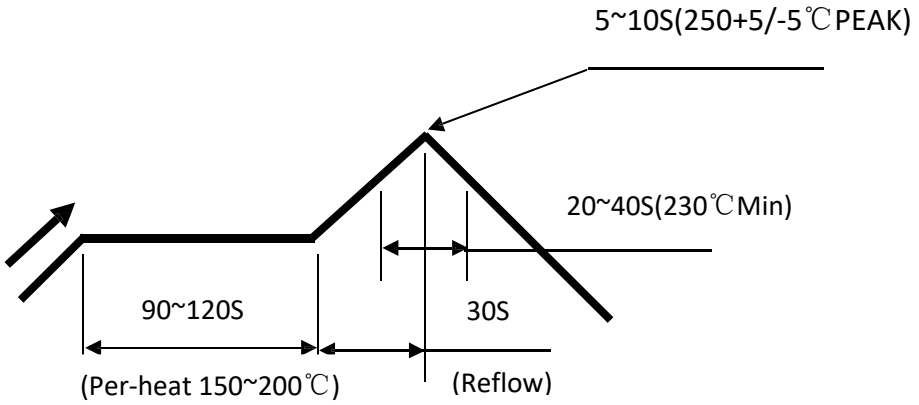
6. INSERTION/WITHDRAWAL FORCE <Connector mating force>

No. of CKT	First Insertion (kgf Max.)	30th Withdrawal (kgf Min.)	No. of CKT	First Insertion (kgf Max.)	30th Withdrawal (kgf Min.)
2	2.5	0.2	9	6.0	0.9
3	3.0	0.3	10	6.5	1.0
4	3.5	0.4	11	7.0	1.1
5	4.0	0.5	12	7.5	1.2
6	4.5	0.6	13	8.0	1.3
7	5.0	0.7	14	8.5	1.4
8	5.5	0.8	15	9.0	1.5

Note:Insertion and Withdrawal for 30Cycles

Product Specification:	ISSUED BY:	Engineering Dept
Subject: 1.50mm Pitch SCT1501 Series Connector Specification	Date Issued	2013/05/21
	Date Revised	2013/07/15

7. SMT SMT INFRARED REFLOW CONDITION



TEMPERATURE CONDITION GRAPH/ (TEMPERATURE ON BOARD PATTERNSIDE)

Notes: Please check the reflow soldering condition by your own devices beforehand. Because the condition changes by the soldering devices, P.C. boards, and so on.