ATTEND Connect to Your Success **SPECIFICATION AND PERFORMANCE**	**SERIES:** **202D-FBN0-R**
	FILE: **202D-FBN0-R_spec**
	DATE: **2013/02/05**

Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of 202D-FBN0-R.

Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

RoHS:

All material in according with the RoHS environment related substances list controlled.

MATERIAL AND FINISH		
INSULATOR	**Material**	Housing: LCP 30%GF, UL94V-0 black.
CONTACT	**Material**	Contact: copper alloy (t=0.2)
	Plating	Contact area: Au 0.76um Solder area: Sn 2.5um Under plating: Ni 1.25um
SHELL OR COVER	**Material**	Shell: copper alloy (t=0.4)
	Plating	Under plating: Cu 1.25um Over plating: Ni 1um
OTHERWISE SPECIFIED	Voltage: 30 VAC (rms max) Current: 1.0A per contact, not to exceed 30℃ temperature rise Operating temperature: 0℃ to +50℃ Storage temperature: -20℃ to +65℃	

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ELECTRICAL		
Item	**Requirement**	**Test Condition**
contact resistance	50 mΩ	50 mΩSubject mated contacts assembled in housing to 20 mV maximum open circuit at 100 mA maximum. EIA 364 – 23
Insulation resistance	100 MΩ	Test voltage 100±10VDC between adjacent contacts of mated and unmated connector assemblies. EIA 364 – 21
Dielectric withstanding Voltage	No flashover& Spar cover & excess Leakage & breakdown	Test voltage 100VAC between adjacent contacts of mated and unmated connector assemblies. EIA 364 – 20
Contact capacitance	2 pF maximum unmated per contact.	The object of this test is to detail a standard method to determine the capacitance between conductive elements of a mini usb connector. EIA 364 – 30

ENVIRONMENTAL		
Item	**Requirement**	**Test Condition**
Thermal shock	10Cycles –55℃ and +85℃,The USB connectors under test must be mated.	EIA 364 – 32
Humidity Life	168 Hours minimum	The mini usb 5p connectors under test must be tested in accordance with EIA 364 – 31
Temperature life	No Damage	Subject mated connectors to temperature Life at 85℃ for 250 hours. EIA 364 – 17A-87
Mixed Flowing Gas	No Damage	(1) Unmated for 1 day (2) Mated for 10 day EIA 364-65-92

Flammability	UL 94 v-0	Require its thermoplastic resin vendor to supply a detailed C of C with each resin shipment. The C of C shall clearly show the resin's UL listing number, lot number, date code, etc.

MECHANICAL		
Item	**Requirement**	**Test Condition**
Vibration	No discontinuities of 1*u*s or Longer duration.	Test Letter A. Subject mated connectors to 5.35 G's rms. 15 minutes in each of three mutually perpendicular planes. EIA364 –28A-83
Physical shock	No discontinuities of 1*u*s or Longer duration.	Subject mated connectors to 30 Gs half-sine shock' pulses of 11 ms duration. There shocks in each direction applied along three mutually perpendicular planes ,18 total shocks. EIA 364 – 27
Durability	5000cycles	5000cycles insertion/extraction at a maximum rate of 200cycles per hour.
Cable pull-out	Applied a load of 40N for one minute.	EIA364-38
Mating force	35N maximum	Measure force necessary to mate connector assemblies at maximum rate of 12.5mm/min. EIA 364 – 13
Unmating force	7 N minimum initial; 3 N minimum after 5000cycles mating and unmating.	Measure force necessary to unmate connector assemblies at maximum rate of 12.5 mm/min. EIA 364 – 13

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SOLDER ABILITY

Item	Requirement	Test Condition
Solderability	95% coverage	Mini usb contact solder tails shall pass 95% coverage after one hour steam aging as specified in category 2. EIA364--52
Resistance to soldering heat	No melting, cracks or functional damage allowed	All connectors designed for PCB soldering within this specification must be able to withstand the heat from solder oven according to the graph below. The cycle should be repeated twice. (MIL-STD-202 METHOD 210)

Peak temperature: 260℃
Soldering temperature: 230℃
Preheating temperature: 150-180℃