



CABLE, TIN PLATED COPPER CONDUCTOR, UN-INSULATED

WSS-M1L123-A6

1. SCOPE

The conductors defined by this specification are multi strands and un-insulated.

2. APPLICATION

This specification was released for stranded ground strap applications.

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 CONDUCTOR

(SAE J1128/ASTM B 33/ASTM B 193)

3.2.1 The conductors shall meet the requirements of Table 1 of this specification.

3.2.2 Before Bunching – The wire must meet the requirements of ASTM B 33 for tensile strength, elongation, resistivity, dimensions and finish.

3.2.3 Conductor resistance shall be measured on a 1050 mm cable (use of a longer specimen is optional). Solder (optional) 25 mm along each end of the specimen. Condition the specimen for a minimum of 4 hours at 23 °C +/- 5 °C. Measure the unsoldered length, the ambient temperature, and the resistance of the specimen. Calculate the resistance per meter. Calculate the resistance at 20 °C using the temperature correction method outlined in ASTM B 193. The maximum resistance values shall conform to those shown in Table 1.

Date	Action	Revisions	Ver 2
2008 08 19	Revised	Revised 3.2, 3.2.2 & 3.2.3	R. Patel, FNA
2008 02 07	Activated		R. Patel



Table 1

SAE Wire Size	Minimum number of Strands	Conductor dia. Nom. Size mm (in.) Reference only	Minimum Conductor Area mm ² (cir. mil.)	Nominal Strand Size mm (in.)	Max. Resistance @ 20 °C (mohms/m) Reference only
22	7	0.76 (0.030)	0.32 (672)	0.25 (0.0100)	57.8
20	7	0.97 (0.038)	0.51 (1072)	0.32 (0.0126)	36.4
18	16	1.17 (0.046)	0.76 (1537)	0.25 (0.0100)	24.7
18	19	1.17 (0.046)	0.76 (1537)	0.23 (0.0092)	24.7
16	19	1.45 (0.057)	1.12 (2336)	0.28 (0.0113)	16.6
14	19	1.80 (0.071)	1.85 (3702)	0.36 (0.0142)	10.0
12	19	2.29 (0.090)	2.91 (5833)	0.45 (0.0179)	6.37