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Paige spec **461001-REV A**

June 4, 2003

COAXIAL CABLE

50 OHM – 100 PLUS

1.0 SPECIFICATIONS:

1.1 CONDUCTOR:
1.1.1 Material: Bare Copper Clad Steel
1.1.2 Size: 25 AWG
1.1.3 Construction: Solid
1.1.4 O.D.: .018" nom. +/- .001

1.2 INSULATION:
1.2.1 Material: Irradiated Solid Polyethylene
1.2.2 Wall Thickness: .021" nom.
1.2.3 O.D.: .060" nom. +/- .002

1.3 INNER SHIELD:
1.3.1 Material: Metallized Polyester
1.3.2 Thickness: .003"
1.3.3 O.D.: .066" nom. +/- .004

1.4 OUTER SHIELD:
1.4.1 Material: Tinned Copper Braid
1.4.2 Size: #38 AWG
1.4.3 Coverage: 95% min.
1.4.4 O.D.: .084" nom. +/- .003

1.5 JACKET:
1.5.1 Material: Irradiated Zero Halogen Polyolefin
1.5.2 Wall Thickness: .013" nom.
1.5.3 O.D.: .110" nom. +/- .005
1.5.4 Marking: "PAIGE PART NO. 461001 PAIGE PLUS 50 OHM IRRADIATED"

1.6 TEMPERATURE / VOLTAGE:
1.6.1 105°C / 300 Volt

2.0 ELECTRICAL:

2.1 CAPACITANCE: 30.8 pF/ft. nom.
2.2 VELOCITY OF PROPAGATION: 66% nom.
2.3 IMPEDANCE: 50 ohms +/-2
2.4 MAX. SHIELD DCR: 9.5 ohms/K ft.
2.5 MAX. CONDUCTOR DCR: 81 ohms/K ft.
2.6 *MIN. INSULATION RESISTANCE: 15000 Ohms/K ft.
2.7 MAX. VSWR (30 MHz to 2 GHz): 1.2
2.8 NOM. ATTENUATION: See Table 1
2.9 WITHSTAND VOLTAGE OF DIELECTRIC: 500 VDC
2.10 WITHSTAND VOLTAGE OF JACKET: 2000 VRMS
2.11 ELECTRICAL LENGTH AND PHASE DELAY: 1.53 nS/ft.
2.12 MAX. PEAK POWER: .6 kW
2.13 NOMINAL POWER: See Table 2

2.14 ***MIN. ABRASION RESISTANCE:** 2500 Cycles (300 GM weight, tested at room temperature

2.15 ***MAX. HEAT FLOW RESISTANCE OF THE DIELECTRIC:** 15% (1" mandrel, two 1/8 lb weights, heated at 100°C for 96 hours)

2.16 ***MAX. DIMENSIONAL STABILITY:** 3/8" (3" metal tube, heated at 100°C for 96 hours)

*REFERENCE IEC 61196-1

TABLE 1: ATTENUATION

Frequency (MHz)	Attenuation (dB/100 ft)
30	3.9
50	5.1
100	7.3
150	8.9
220	10.9
450	15.8
900	22.8
1000	24.2
1500	30.1
1800	33.2
2000	35.2
2500	39.8
5800	64.1

TABLE 2: POWER HANDLING

Frequency (MHz)	kW
30	.23
50	.18
100	.14
150	.10
220	.08
450	.06
900	.05
1000	.05
1500	.04
1800	.03
2000	.02
2500	.01
5800	.01