

Product: 7809A ☑





Product Description

Intermediate type, 13 AWG solid .072" bare copper conductor, gas-injected foam HDPE insulation, Duobond® II, tinned copper braid shield (95% coverage), polyethylene jacket.

Technical Specifications

Physical Characteristics (Overall)

| Conductor | | | | |
|-----------|-------------|------------------|------------------|-------------|
| AWG | Stranding | Material | Nominal Diameter | No. of Coax |
| 13 | Solid | BC - Bare Copper | 0.072 in | 1 |
| Condu | ctor Count: | | | 1 |

Insulation

Outer Shield Material

| Type | Layer | Material | Material Trade Name | Coverage [%] |
|-------|-------|-------------------------------|---------------------|--------------|
| Tape | 1 | Tri-Laminate (Alum+Poly+Alum) | Duofoil® | 100% |
| Braid | 2 | Tinned Copper (TC) | | 95% |

Outer Jacket Material

| Material | Nominal Diameter |
|-------------------|------------------|
| PE - Polyethylene | 0.3 in |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Conductor DCR Conductor Resistance | Nominal Outer Shield DCR | Outer Conductor DCR |
|--------------------------|--|--------------------------|---------------------|
| 2.1 Ohm/1000ft | 2.1 Ohm/1000ft | 2.4 Ohm/1000ft | 2.4 Ohm/1000ft |

Capacitance

Nom. Capacitance Conductor to Shield 23 pF/ft

Inductance

Nominal Inductance

Impedance

Nominal Characteristic Impedance
50 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz] Nom. Insertion Loss

| 5 MHz | 0.45 dB/100ft |
|----------|---------------|
| 10 MHz | 0.6 dB/100ft |
| 30 MHz | 1 dB/100ft |
| 50 MHz | 1.3 dB/100ft |
| 150 MHz | 2.2 dB/100ft |
| 220 MHz | 2.7 dB/100ft |
| 450 MHz | 3.9 dB/100ft |
| 900 MHz | 5.6 dB/100ft |
| 1500 MHz | 7.3 dB/100ft |
| 1800 MHz | 8.1 dB/100ft |
| 2000 MHz | 8.6 dB/100ft |
| 2500 MHz | 9.7 dB/100ft |
| 3000 MHz | 10.8 dB/100ft |
| 3500 MHz | 11.8 dB/100ft |
| 4500 MHz | 13.5 dB/100ft |
| 5800 MHz | 15.8 dB/100ft |
| 6000 MHz | 16 dB/100ft |

Delay

| Nomi | nal Delay | Nominal Velocity of Propagation (VP) [%] |
|--------|-----------|--|
| 1.17 r | ns/ft | 86% |

Power Rating

| Frequency [MHz] | Max. Power Rating [W] | Nominal Power Rating [W] |
|-----------------|-----------------------|--------------------------|
| 30 MHz | 2,161 W | 2,161 W |
| 50 MHz | 1,658 W | 1,658 W |
| 150 MHz | 928 W | 928 W |
| 220 MHz | 758 W | 758 W |
| 450 MHz | 522 W | 522 W |
| 900 MHz | 367 W | 367 W |
| 1,500 MHz | 278 W | 278 W |
| 2,000 MHz | 239 W | 253 W |
| 2,500 MHz | 212 W | 239 W |
| 3,500 MHz | 179 W | 212 W |
| 4,500 MHz | 157 W | 194 W |
| 6,000 MHz | 135 W | 179 W |
| 4,500 MHz | 157 W | 157 W |
| 5,800 MHz | 137 W | 137 W |
| 6,000 MHz | 135 W | 135 W |

Voltage

Non-UL Voltage Rating 300 V RMS

VSWR

| Frequency [MHz] | Max. VSWR |
|-----------------|-----------|
| 5-6000 MHz | 1.25:1 |

Temperature Range

| Non-UL Temp Rating: | 80°C |
|-----------------------|----------------|
| Operating Temp Range: | -40°C To +75°C |

Mechanical Characteristics

| Bulk Cable Weight: | 54 lbs/1000ft |
|-----------------------------|---------------|
| Max. Pull Tension: | 135 lbs |
| Min Bend Radius/Minor Axis: | 3 in |

Standards

| RG Type: | N/A | |
|----------|-----|--|

Applicable Environmental and Other Programs

| Environmental Space: | Indoor (Not Riser or Plenum) |
|----------------------|------------------------------|

| EU Directive 2000/53/EC (ELV): | Yes |
|---------------------------------------|-------------------------------|
| EU Directive 2003/11/EC (BFR): | Yes |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU Directive 2012/19/EU (WEEE): | Yes |
| EU Directive 2015/863/EU: | Yes |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | No |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-01 |
| MII Order #39 (China RoHS): | Yes |

Suitability

| Suitability - Indoor: | Yes | |
|-----------------------|-----|--|

Plenum/Non-Plenum

| Plenum (Y/N): | No | |
|---------------|----|--|

Part Number

Variants

| | Item # | Color | Putup Type | Length | UPC |
|---|---------------|-------|------------|----------|--------------|
| ĺ | 7809A 010500 | Black | Reel | 500 ft | 612825189749 |
| | 7809A 0101000 | Black | Reel | 1,000 ft | 612825189732 |

Footnote: C - CRATE REEL PUT-UP.

History

| Update and Revision: | Revision Number: 0.305 Revision Date: 09-30-2020 |
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