Product: 7808R



50 Ohm Wireless Transmission Coax, RF 240, RG58X, 15 AWG Solid BC, Foil + 95% TC Braid, PVC Jkt, CMR

Product Description

50 Ohm Wireless Transmission Coax, RF 240, RG58X, 15 AWG Solid Bare Copper Conductor, PE Insulation, Duofoil® II + 95% Tinned Copper Braid Shield, PVC Jacket, CMR

Technical Specifications

Product Overview

Suitable Applications:	Point-to-point and point-to-multipoint wireless antenna communication; Wireless microphones, Two-Way Radios, Amateur (Ham) Radio, Low Power FM, GPS, RFID (Radio Frequency Identification)

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
15	Solid	BC - Bare Copper	0.057 in	1

Conductor Count:	1

Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.150 in

Outer Shield

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	Nominal Diameter
PVC - Polyvinyl Chloride	0.240 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
3.2 Ohm/1000ft	2.8 Ohm/1000ft	2.8 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
23 pF/ft

Inductance

Nominal Inductance
0.06 µH/ft

Impedance

Nominal Characteristic Impedance
50 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
5 MHz	0.58 dB/100ft
10 MHz	0.77 dB/100ft
30 MHz	1.3 dB/100ft
50 MHz	1.6 dB/100ft
150 MHz	2.8 dB/100ft
220 MHz	3.4 dB/100ft
450 MHz	4.9 dB/100ft
900 MHz	7.0 dB/100ft
1500 MHz	9.1 dB/100ft
1800 MHz	10.1 dB/100ft
2000 MHz	10.7 dB/100ft
2500 MHz	12 dB/100ft
3000 MHz	13.4 dB/100ft
3500 MHz	14.6 dB/100ft
4500 MHz	16.7 dB/100ft
5800 MHz	19.5 dB/100ft
6000 MHz	19.8 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.18 ns/ft	86%

High Frequency

Frequency [MHz]
30 MHz
50 MHz
150 MHz
220 MHz
450 MHz
900 MHz
1500 MHz
1800 MHz
2000 MHz
2500 MHz
3000 MHz
3500 MHz
4500 MHz
5800 MHz
6000 MHz

Power Rating

Frequency [MHz]	Max. Power Rating [W]
30 MHz	1,526 W
50 MHz	1,186 W
150 MHz	673 W
220 MHz	556 W
450 MHz	382 W
900 MHz	268 W
1,500 MHz	205 W
2,000 MHz	177 W
2,500 MHz	156 W
3,500 MHz	100 W
4,500 MHz	116 W
6,000 MHz	100 W

Voltage

UL Voltage Rating
300 V RMS

VSWR

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

Temperature Range

UL Temperature Rating:	60°C
Operating Temperature Range:	-20°C to +75°C

Mechanical Characteristics

Bulk Cable Weight:	40 lbs/1000ft
Maximum Recommended Pulling Tension:	69 lbs
Minimum Minor Axis Bend Radius:	2.4 in

Standards

NEC/(UL) Compliance:	CMR
CEC/C(UL) Compliance:	CMG
CPR Euroclass:	Eca
RG Type:	58X

Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Vertical Shaft
IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
7808R 010500	Black	Reel	500 ft	612825189701
7808R 0101000	Black	Reel	1,000 ft	612825189695

Footnote:	C - CRATE REEL PUT-UP.

History

Update and Revision:	Revision Number: 0.486 Revision Date: 02-03-2025

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