


**Product:** [7808R](#) 



50 Ohm Wireless Transmission Cable, RF 240, RG58, 15 AWG Solid BC, Foil + 95% TC Braid, PVC Jkt, CMR

## Product Description

50 Ohm Wireless Transmission Cable, RF 240, RG58, 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)
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### Physical Characteristics (Overall)

#### Conductor

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

Conductor Count:	1
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#### Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.15 in

Table Notes:	Gas Injected
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#### Outer Shield Material

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

Table Notes:	Tape is bonded to dielectric
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#### Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.24 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 $\mu$ H/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 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 Freq**

Frequency [MHz]	Max. Insertion Loss (Attenuation)
30 MHz	1.37 dB/100ft
50 MHz	1.8 dB/100ft
150 MHz	3.1 dB/100ft
220 MHz	3.7 dB/100ft
450 MHz	5.4 dB/100ft
900 MHz	7.8 dB/100ft
1500 MHz	10.2 dB/100ft
1800 MHz	11.2 dB/100ft
2000 MHz	11.9 dB/100ft
2500 MHz	13.4 dB/100ft
3000 MHz	14.7 dB/100ft
3500 MHz	15.9 dB/100ft
4500 MHz	18.2 dB/100ft
5800 MHz	20.8 dB/100ft
6000 MHz	21.2 dB/100ft

**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	286 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
4,500 MHz	116 W
5,800 MHz	102 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 Temp Rating:	60°C
Operating Temp Range:	-20°C To +75°C

## Mechanical Characteristics

Bulk Cable Weight:	40 lbs/1000ft
Max. Pull Tension:	69 lbs
Min Bend Radius/Minor Axis:	2.4 in

## Standards

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

## 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 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 RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
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
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## Part Number

### Variants

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

Footnote:	C - CRATE REEL PUT-UP.
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## History

Update and Revision:	Revision Number: 0.310 Revision Date: 07-02-2020
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