


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)
------------------------	--

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)	0.15 in

Table Notes:	Gas Injected
--------------	--------------

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%

Table Notes:	Tape is bonded to dielectric
--------------	------------------------------

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 μ 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
---------------	----

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.
-----------	------------------------

History

Update and Revision:	Revision Number: 0.345 Revision Date: 09-30-2020
----------------------	--

© 2020 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.