



**Product:** [7805R](#)

50 Ohm Wireless Transmission Coax, RF 100, RG174, 25 AWG Solid BC, Foil + 90% TC Braid, PVC Jkt, CMR

## Product Description

50 Ohm Wireless Transmission Coax, RF 100, RG174, 25 AWG Solid Bare Copper Conductor, PE Insulation, Beldfoil® + 90% 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)
------------------------	--

### Construction Details

RG Type:	174
----------	-----

#### Conductor

Size	Stranding	Nom. Diameter	Material
25 AWG	Solid	0.020 in	BC - Bare Copper

#### Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene (Foam)	0.060 in (1.5 mm)	White

#### Outer Shield

Layer	Outer Shield Type	Material	Material Trade Name	Coverage
1	Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%
2	Braid	Tinned Copper (TC)		90%

#### Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.110 in (2.79 mm)

Overall Cable Diameter (Nominal):	0.110 in (2.79 mm)
-----------------------------------	--------------------

### Electrical Characteristics

#### VSWR

Frequency	Max. VSWR
5 - 6000 MHz	1.25:1

#### Attenuation

Frequency	Nom. Attenuation
5 MHz	1.4 dB/100ft
10 MHz	2 dB/100ft
30 MHz	3.5 dB/100ft
50 MHz	4.6 dB/100ft
150 MHz	8.0 dB/100ft
220 MHz	9.6 dB/100ft
450 MHz	14.0 dB/100ft

900 MHz	20.2 dB/100ft
1500 MHz	26.6 dB/100ft
1800 MHz	29.5 dB/100ft
2000 MHz	31.2 dB/100ft
2500 MHz	35.4 dB/100ft
3000 MHz	39.4 dB/100ft
3500 MHz	43.0 dB/100ft
4500 MHz	50.0 dB/100ft
5800 MHz	59.0 dB/100ft
6000 MHz	60.6 dB/100ft

#### Power Rating

Frequency	Max. Power Rating
30 MHz	216 W
50 MHz	154 W
150 MHz	74 W
220 MHz	57 W
450 MHz	34 W
900 MHz	21 W
1,500 MHz	14 W
2,000 MHz	12 W
2,500 MHz	10 W
3,500 MHz	8 W
4,500 MHz	7 W
6,000 MHz	5 W

#### Electricals

Nom. Conductor DCR	Nom. Outer Shield DCR	Nom. Capacitance Cond-to-Shield	Nom. Characteristic Impedance	Nom. Velocity of Prop.
27.3 Ohm/1000ft	9.3 Ohm/1000ft (31 Ohm/km)	26.2 pF/ft (86.0 pF/m)	50 Ohm	74%

#### Voltage

UL Voltage Rating
300 V (CMR, CMG)

### Mechanical Characteristics

#### Temperature

UL Temperature	Operating
60°C	-40°C to +80°C

#### Bend Radius

Installation Min.
0.25 in (6.4 mm)

Max. Pull Tension:	20 lbs (9.1 kg)
Bulk Cable Weight:	9 lbs/1000ft

### Standards and Compliance

Environmental Suitability:	Indoor - Riser, Indoor
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL1666 Vertical Shaft
NEC / UL Compliance:	CMR
CEC / C(UL) Compliance:	CMG
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

### History

Update and Revision:	Revision Number: 0.495 Revision Date: 02-03-2025
----------------------	--

### Part Numbers

#### Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7805R 008100	Gray	Reel	100 ft	612825189558	E
7805R 008500	Gray	Reel	500 ft	612825189572	
7805R 0081000	Gray	Reel	1,000 ft	612825189565	

© 2025 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.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Belden Wire & Cable:](#)

[7805R 0081000](#) [7805R 008100](#) [7805R 008500](#)