



Cisco Aironet 400 and 600 Series Low Loss and Ultra Low Loss Cable Information Sheet

Introduction

The Cisco Aironet 400 Series Low Loss (LL) and 600 Series Ultra Low Loss (ULL) cables provide improved performance and increased protection against damage caused by water penetration in outdoor installations. Used primarily in remote antenna installations, both cable types are also ideal for any outdoor application requiring an easily routed, superior performing RF cable.



Note

The 400 series cable is a drop-in replacement for existing RG-8/9913 installations.

The cables are available in various lengths and with various connectors. To obtain more information about the cables and how to order them, you can register on Cisco.com. In addition to ordering products, registered users can check on the status of an order, contact technical support, and view benefits specific to their relationships with Cisco.

To access Cisco.com, go to the following website:

<http://www.cisco.com>

Specifications

Table 1 lists the cable's general specifications by series and part number.

Table 1 *Cable Specifications*

Mechanical Specifications	400 Series (AIR-CABxxxLL-y)¹	600 Series (AIR-CABxxxULL-y)¹
Diameter	0.405 in. (10.29 mm) ²	0.590 in. (14.99 mm) ²
Minimum bend radius	1.0 in. (25.4 mm)	1.5 in. (38.1 mm)
Weight	0.068 lbs/ft (0.10 kg/m) max.	0.131 lbs/ft (0.20 kg/m) max,
Tensile strength	160 lbs (72.6 kg)	350 lbs (158.9 kg)



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Table 1 *Cable Specifications (continued)*

Environmental Specifications	400 Series (AIR-CABxxxLL-y)¹	600 Series (AIR-CABxxxULL-y)¹
Operating temperature range	–40°F to 185°F (–40°C to 85°C)	–40°F to 185°F (–40°C to 85°C)
Storage temperature range	–94°F to 185°F (–70°C to 85°C)	–94°F to 185°F (–70°C to 85°C)
Installation temperature range	–40°F to 185°F (–40°C to 85°C)	–40°F to 185°F (–40°C to 85°C)
Electrical Specifications		
Impedance	50 ohms	50 ohms
Attenuation at 2.5 GHz	5.7 dB/100 ft (22.2 dB/100 m)	4.4 dB/100 ft (14.5 dB/100 m)
Attenuation at 5.8 GHz	10.8 dB/100 ft (35.5 dB/100 m)	7.3 dB/100 ft (23.8 dB/100 m)
Construction Specifications		
Inner conductor	Copper clad aluminum	Copper clad aluminum
Dielectric	Foam polyethylene	Foam polyethylene
Outer conductor	Aluminum tape	Aluminum tape
Overall braid	Tinned copper or Aluminum	Tinned copper or Aluminum
Standard jacket	Black polyethylene	Black polyethylene
Connector type	RP-TNC or N, depending on model number	RP-TNC or N, depending on model number

Notes

¹ The part number is inside the parentheses, where xxx identifies the cable's length in feet and y denotes the connector type.

² Cable diameter does not include diameter of the connector.

Installation Information

The following installation information may prove helpful when installing the cable.

- This cable is intended for use in outdoor installations. It is not plenum-rated.
- Plan your installation carefully to make sure that any bends in the cable's route are equal to or greater than the minimum bend radius for the cable you are using.
- Insure that the installation is in compliance with National Electrical Code (NEC) and local regulations.
- Make sure the cable is adequately supported.
- Do not allow the cable to hang unsupported over a span greater than approximately 10 ft.
- Be careful to not crush the cable when installing support devices such as strain reliefs and mounting clamps.
- Use the correct bit size to drill a hole in which to route the cable, taking into account the connector diameter.
 - For 400 series cables, use a bit of at least ¾ in. (19 mm.).
 - For 600 series cables, use a bit of at least 1 in. (25 mm.).

- Even though the cable is resistant to the full range of outdoor environments, Cisco recommends that you weatherproof all outside connections using sealing materials designed for cable installations, such as Universal Electronics, Inc. Coax Seal, Andrew Corp. Cold Shrink, or Huber+Suhner Fast-Wrap. Follow the manufacturer's instructions carefully.

Safety Instructions

Follow these safety instructions when installing your cables.

- Plan your installation procedure carefully and completely before you begin.
- If you are installing an antenna for the first time, for your own safety as well as others, seek **professional assistance**. Consult your dealer, who can explain which mounting method to use for your location.
- Always install an approved lightning arrestor when installing an antenna mounted outdoors.
- When installing an antenna, **do not** use a metal ladder. **Do** dress properly - shoes with rubber soles and heels, rubber gloves, and a long sleeved shirt or jacket.
- Select your installation site with safety, as well as performance, in mind. Remember that electric power cables and telephone lines look alike. For your safety, assume that any line is an electric power line until determined otherwise.
- Call your local power company or building maintenance organization if you are unsure about cables close to your installation path.

If an accident or emergency occurs with the power lines, call for qualified emergency help immediately.

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