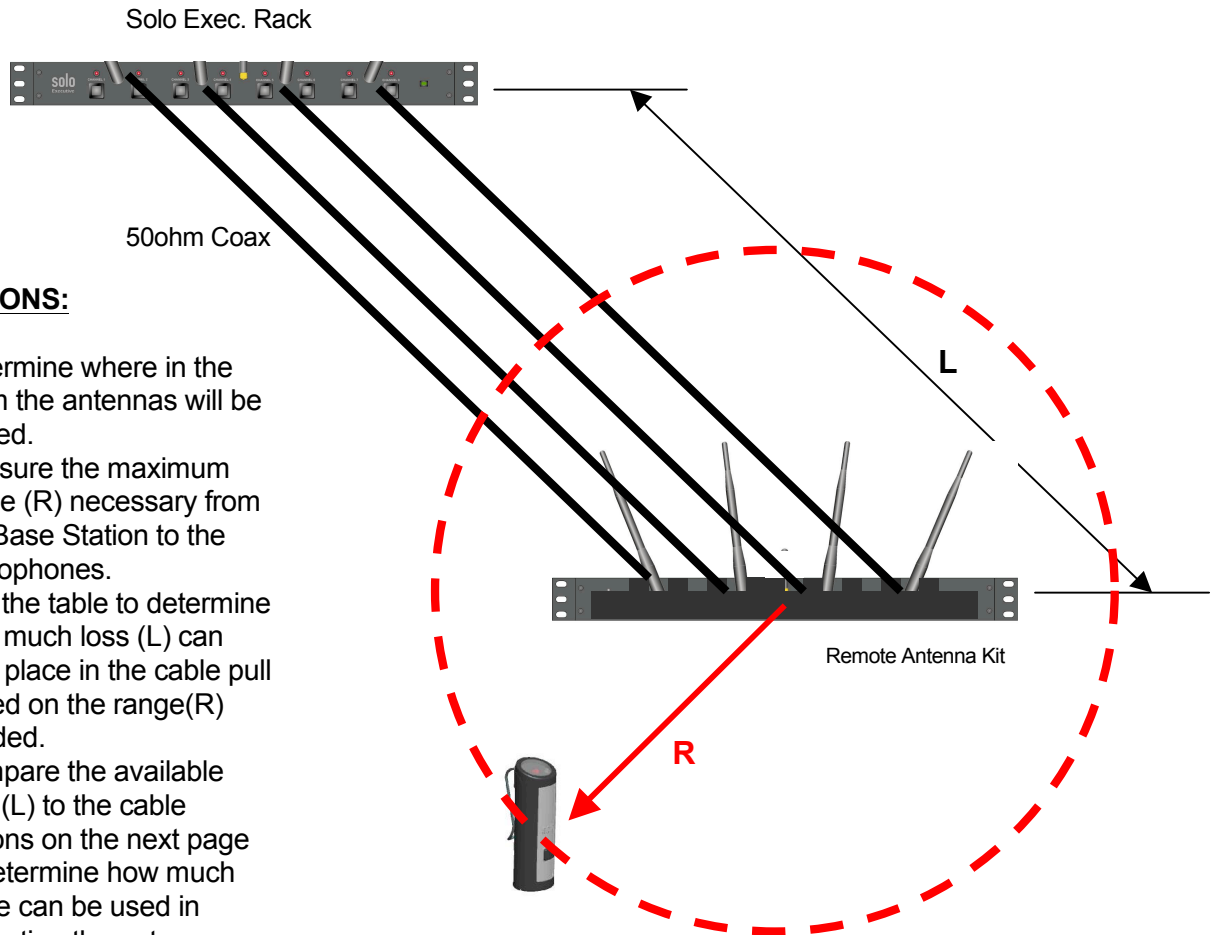


Application Note: Using Remote Antennas on the Solo Executive System

Overview

In some cases, building structure or equipment location may require extending the antennas from the front panel of the Solo Executive System to a remote location. Since the system operates at microwave frequencies (~1.9Ghz), we always recommend not using remote antennas unless absolutely necessary. Cable loss at microwave frequencies is very high thus reducing the effective range of the Solo microphones from the antenna elements. The following diagram and data is shown to describe the trade-off;



INSTRUCTIONS:

1. Determine where in the room the antennas will be placed.
2. Measure the maximum range (R) necessary from the Base Station to the microphones.
3. Use the table to determine how much loss (L) can take place in the cable pull based on the range(R) needed.
4. Compare the available loss (L) to the cable options on the next page to determine how much cable can be used in relocating the antennas.

Solo Executive:

L (Signal Loss, dBm)	R (Range, ft.)
0	100
1.5	80
3	60
3.75	50
4.5	40
5.25	30
6	20

Executive HD & HD Venue:

L (Signal Loss, dBm)	R (Range, ft.)
0	300
1	250
2	200
3	150
6	125
9	100
12	75
14	50
16	25

Cable Types

Revolabs recommends purchasing the Revolabs Antenna Extension Kit. It is a complete kit if you are going to move the antennas six feet or less. For longer distances, the Antenna Extension Kit provides a six foot flexible cable with right angle connector and a rack base plate, allowing you to easily attach additional cable from the list below. Refer to the Antenna Extension Kit Product Specifications on www.revolabs.com

Antenna Extension Kit for 8-channel Solo Executive or Executive HD Wireless Microphone System 01-ANTEXEC8-KIT

Antenna Extension Kit for 4-channel Solo Executive or Executive HD Wireless Microphone System 01-ANTEXEC4-KIT

The following are the Revolabs-supported manufacturers, cable types, and corresponding RF loss for extending the antennas past six feet. All of these cable specifications can be found in the Reseller Resources section of www.revolabs.com

- Times Microwave LMR-400 5.9dB @ 100' of cable
- Times Microwave LMR-600 3.8dB @ 100' of cable
- Times Microwave LMR-900 2.6dB @ 100' of cable
- Times Microwave BC-400 Quad Bundled (4 LMR-400 cables in one housing)
- Belden RF500 7976 4.9dB @ 100' of cable
- Belden RF600 7977 3.9dB @ 100' of cable
- Andrew AL5RK-50 5.9dB @ 100' of cable
- Andrew AL7RK-50 3.6dB @ 100' of Cable