Antennas

Cambium Networks offers a range of antenna options and installation kits to assist in the deployment of a complete system.

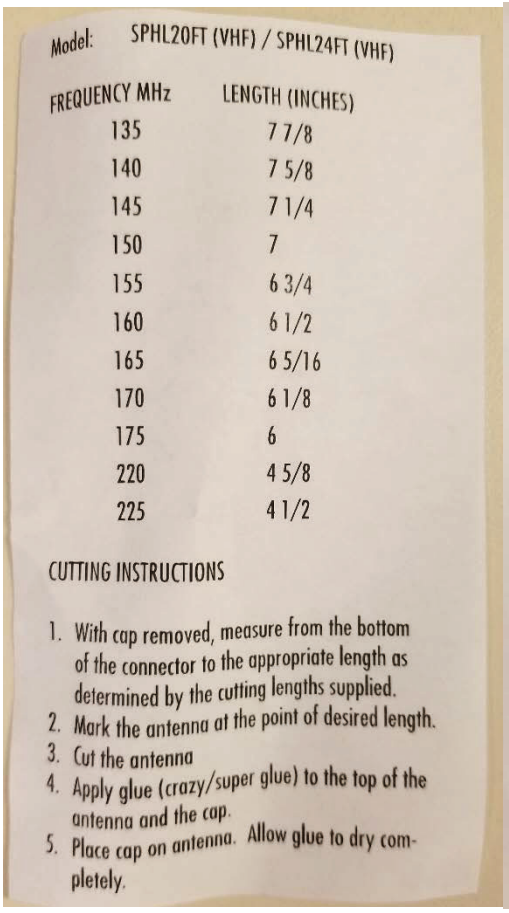
For bench testing and trials, a series of 'whip' low-gain omni antennas is available for each band.

NB-N500008A-US	N500 900 MHz Whip Antenna
NB-N500009A-US	N500 700 MHz Whip Antenna
NB-N500010A-US	N500 450 MHz Whip Antenna
NB-N500012A-US	N500 220 MHz Whip Antenna

These whip antennas generally net out to unity gain or close to 0dB. Picture below are the whip antennas from left to right (220 MHz, 450 MHz, 700 MHz and 900 MHz)



Note that the 220 MHz and 450 MHz antennas need to be trimmed to the correct length for optimal frequency matching. An instruction sheet is included with each antenna to indicate the correct length. Those instruction sheets are pictured below:

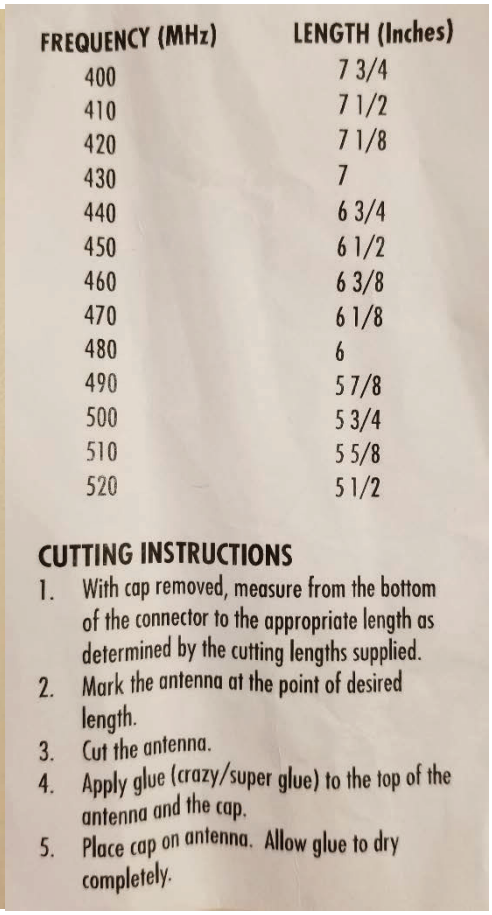


Model: SPHL20FT (VHF) / SPHL24FT (VHF)

FREQUENCY MHz	LENGTH (INCHES)
135	7 7/8
140	7 5/8
145	7 1/4
150	7
155	6 3/4
160	6 1/2
165	6 5/16
170	6 1/8
175	6
220	4 5/8
225	4 1/2

CUTTING INSTRUCTIONS

1. With cap removed, measure from the bottom of the connector to the appropriate length as determined by the cutting lengths supplied.
2. Mark the antenna at the point of desired length.
3. Cut the antenna
4. Apply glue (crazy/super glue) to the top of the antenna and the cap.
5. Place cap on antenna. Allow glue to dry completely.



FREQUENCY (MHz)	LENGTH (Inches)
400	7 3/4
410	7 1/2
420	7 1/8
430	7
440	6 3/4
450	6 1/2
460	6 3/8
470	6 1/8
480	6
490	5 7/8
500	5 3/4
510	5 5/8
520	5 1/2

CUTTING INSTRUCTIONS

1. With cap removed, measure from the bottom of the connector to the appropriate length as determined by the cutting lengths supplied.
2. Mark the antenna at the point of desired length.
3. Cut the antenna.
4. Apply glue (crazy/super glue) to the top of the antenna and the cap.
5. Place cap on antenna. Allow glue to dry completely.

In addition to the whip antennas, Cambium provides aelection of Yagi antennas and an omni antenna for field deployments. Specification sheets for these antennas are available on the Cambium website.

Model #	Cambium Description
NB-N500020A-GL	Yagi Antenna, 900 MHz 6.5 dBd, Single Pol
NB-N500021A-GL	Yagi Antenna, 900 MHz 10 dBd, Single Pol
NB-N500022A-GL	Yagi Antenna, 700 MHz 10 dBd, Single Pol
NB-N500024A-GL	Yagi Antenna, 406-430 MHz 6.5 dBd, Single Pol
NB-N500025A-GL	Yagi Antenna, 406-430 MHz 10 dBd, Single Pol

NB-N500026A-GL	Yagi Antenna, 450-470 MHz 6 dBd, Single Pol
NB-N500027A-GL	Yagi Antenna, 450-470 MHz 10 dBd, Single Pol
NB-N500040A-GL	Omni Antenna, 400 to 960 MHz, Single Pol
NB-N500042A-GL	Yagi Antenna, 215-225 MHz, 6.5 dBd, Single Pol

NB-N500030A-GL	Yagi Antenna with Install Kit, 900 MHz 6.5 dBd, Single Pol
NB-N500031A-GL	Yagi Antenna with Install Kit, 900 MHz 10 dBd, Single Pol
NB-N500032A-GL	Yagi Antenna with Install Kit, 700 MHz 10 dBd, Single Pol
NB-N500034A-GL	Yagi Antenna with Install Kit, 406-430 MHz 6.5 dBd, Single Pol
NB-N500035A-GL	Yagi Antenna with Install Kit, 406-430 MHz 10 dBd, Single Pol
NB-N500036A-GL	Yagi Antenna with Install Kit, 450-470 MHz 6 dBd, Single Pol
NB-N500037A-GL	Yagi Antenna with Install Kit, 450-470 MHz 10 dBd, Single Pol
NB-N500052A-GL	Yagi Antenna with Install Kit, 215-225 MHz, 6.5 dBd, Single Pol

NB-N500041A-GL	Antenna Installation Kit, 50 foot

The Yagi antennas are available either stand-alone with a two foot lead or with an integrated installation kit. For Yagis purchased with an installation kit, the antenna comes with the following items as shown in the picture below:

- Grounding kit
- Weatherproofing kit
- Bulk-head mount RF surge suppressor
- Extra N-type connector (used in case installer wishes to shorten the 25 or 50 ft. drop cable.
- A two foot jumper cable (N-Type to TNC)
- Zip ties

The omni antenna is available stand-alone. The NB-N500041A-GL installation kit has a fifty foot cable which is compatible with the omni for a more turn-key installation.

