



# C177 SERIES RETRACTABLE BLADE ANTENNA

The C177 Series of Retractable Blade Antennas (RBA's) each consist of a broadband blade antenna, complete with an installation canister and integrated drive-train. The blade antennas provide radio frequency performance equivalent to conventional blade antennas but can be fully retracted into the aircraft. The blade antennas within each RBA provide broadband pattern coverage approximating the pattern (directivity) performance of a  $\lambda/4$  monopole. Various models are available, many of which are designed to provide unit-to-unit phase/amplitude tracking or phase/amplitude repeatability as appropriate for customer requirements. Canister depths vary from 14 to 30 inches, accommodating various blade lengths as needed to provide the desired frequency coverage and gain requirements. The C177 Series are suitable for installation in most aircraft types. Features of the C177 Series of RBA's vary to suit customer requirements, however an interferometer/direction finding or communications, navigation and identification function can be accommodated. The C177 Series are also fully repairable, allowing for a life-of-the-aircraft installation.

## ELECTRICAL

<b>Frequency range</b>	HF through S-band (various models)
<b>Impedance</b>	HF through S-band (various models)
<b>Polarization</b>	Vertical, linear
<b>Radiation pattern</b>	Similar to $\lambda/4$ monopole
<b>Power requirements</b>	+28 VDC, <100 mA quiescent, 800 mA nominal while deploying/retracting

## MECHANICAL

	Freq range (MHz)	Deployed blade length	Canister depth	Weight (lbs)	VSWR	Gain	Application	Comments
<b>C177-1</b>	1.5-150	11" Note 1	14"	8.5	4.0:1	-	Interferometer/DF	
<b>C177-2</b>	150-500	11"	14"	8.5	3.0:1	+2 typ	Interferometer/DF	
<b>C177-3</b>	20-150	Note 1	14"	8.5	5.0:1	-25 to 0	Interferometer/DF	
<b>C177-5</b>	50-5,000	11"	14"	8.5	3.0:1	-25 to 4	Interferometer/DF	
<b>C177-6-1</b>	1-100	24"	30"	15	-	-77 to 1	Interferometer/DF	
<b>C177-6-2</b>	1-100	24"	30"	15	3.0:1	-77 to 1	Interferometer/DF	
<b>C177-7</b>	15-100	Note 1	14"	8.5	-	-37 to -6	Interferometer/DF	
<b>C177-9</b>	118-400 960-1,220	11"	14"	8.5	3.0:1	-17 to -4 0 typ	CNI	
<b>C177-13</b>	30-600	6"	9"	9	3.0:1	-43 to 0	Interferometer/DF	Note 3
<b>C177-14</b>	600-2,000	6"	9"	9	3.0:1	+3 typ	Interferometer/DF	Note 3
<b>C177-17-1</b>	88-500	11"	14"	8.5	3.0:1	-17 to +2	Interferometer/DF	
<b>C177-17-2</b>	88-600	11"	14"	8.5	3.0:1	-17 to +2	Interferometer/DF	
<b>C177-18-1</b>	118-400 960-1,220 9,850-10,500	11"	14"	10	3.0:1	-17 to -4 0 typ -3 typ	CNI	

**Notes:**

- The -3 and -7 models do not fully retract, instead when the blade is fully retracted, a trailing whip protrudes into the airstream
- LNA integrated into blade base (CFE)
- Logic (control) module is required to be external to the antenna canister



## KEY FEATURES

- > Unique retractable design
- > Common, proven drive-train assembly
- > Communication or intelligence, surveillance and reconnaissance functions
- > Multiple frequency variants available

**For further details and specifications, contact the factory at [antenna.info@L3Harris.com](mailto:antenna.info@L3Harris.com)**

### C177 Series Retractable Blade Antenna

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