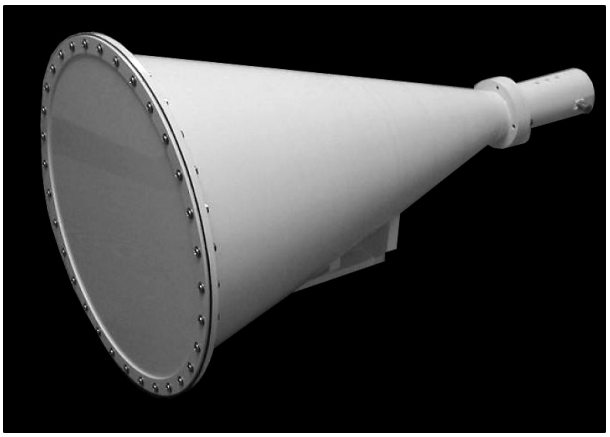
C-band & L/S-band
Telemetry Horn Antennas

Models HCDL14-19-S & HCDL20-48-S

Below is information on a pair of dual linear polarized horn antennas designed and tested for one of the US telemetry flight test ranges. The horns are conical in shape with a sealed aperture window. Inputs are SMA female. The operating frequency of the L/S-band horn is 1.4-2.4 GHz. The operating frequency of the C-band horn is 4.40-5.15 GHz. Alternate bandwidths are available. There is a bracket on each model for mounting the horn to a flat surface. The horns are constructed of aluminum and sealed for outdoor use. The finish is a clear chemical conversion per MIL-C-5541E, class 1A, with polyurethane white topcoat Color No. 17875 per FED-STD-595. Every horn is tested for swept return loss data prior to shipment. Serialized copies of the return loss data are shipped with each horn. mWAVE can furnish an outline drawing of each horn model with mounting details upon request.



HCDL20-48-S
Dual Linear C-band Horn

Dual Linear C-band Horn

Model	HCDL20-48-S
Frequency Band	4.400 - 5.150 GHz
Type	Dual Linear Polarized Horn Antenna
Feed Input	SMA female

Nominal RF Performance

Frequency (GHz)	Gain (dBil)	HPBW (deg.)		Port-to-Port Isolation (dB)	Return Loss (dB)
		E-Plane	H-Plane		
4.400	20.5	14.0	17.0	>40	12.6
4.800	21.0	14.0	16.0	>40	25.9
5.150	21.5	13.5	15.0	>40	30.0

Environmental use	Sealed for outdoor use
Construction	Parts machined from high-strength aluminum
Finish	Clear chemical conversion per MIL-C-5541E, class 1A, with polyurethane white topcoat Color No. 17875 per FED-STD-595
Origin	Engineered and Manufactured in Windham, ME USA

** Additional note on page 2 of this document.*

Notes:

1. Referenced product specifications are subject to change without notice.
   Designed, Engineered, and Manufactured in Windham, ME USA
   mWAVE Industries is part of the Alaris Holdings Group of Companies.

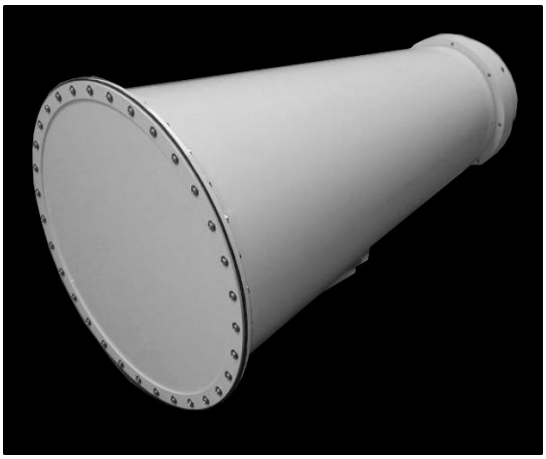
mWAVE source reference Rev. 4/21/11 CJM

Form: HCDL-Series_220913_rev.0-DS

Model

C-band & L/S-band Telemetry Horn Antennas

Models HCDL14-19-S & HCDL20-48-S



HCDL14-19-S
Dual Linear L/S-band Horn

Dual Linear L/S-band Horn

Model	HCDL14-19-S
Frequency Band	1.400 - 2.400 GHz
Type	Dual Linear Polarized Horn Antenna
Feed Input	SMA female

Nominal RF Performance

Frequency (GHz)	Gain (dBil)	HPBW (deg.)		Port-to-Port Isolation (dB)	Return Loss (dB)
		E-Plane	H-Plane		
1.400	12.6	37.5	45.5	>40	11.8
1.900	15.0	30.0	36.0	>40	17.9
2.400	16.9	24.5	29.5	>40	19.4

Environmental use	Sealed for outdoor use
Construction	Parts machined from high-strength aluminum
Finish	Clear chemical conversion per MIL-C-5541E, class 1A, with polyurethane white topcoat Color No. 17875 per FED-STD-595
Origin	Engineered and Manufactured in Windham, ME USA

Specification Notes:

1. Dual CP versions are available upon request.
2. Additional RF components such as Diplexer, LNA, RF switch, and DC power supply can be integrated within a rear sealed enclosure.
3. Additional mounting plates or alternate mounting bracket can be added to suit customer specific mounting requirements.
4. Alternate coaxial input styles are available upon request.
5. Higher and lower gain models are available upon request.
6. This information sheet is proprietary. Do not distribute without written authorization from mWAVE Industries, LLC.

Notes:

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Form: HCDL-Series_220913_rev.0-DS