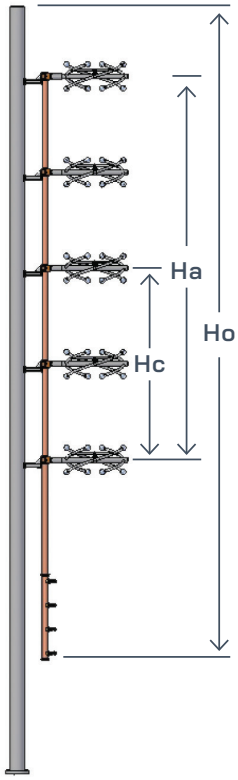
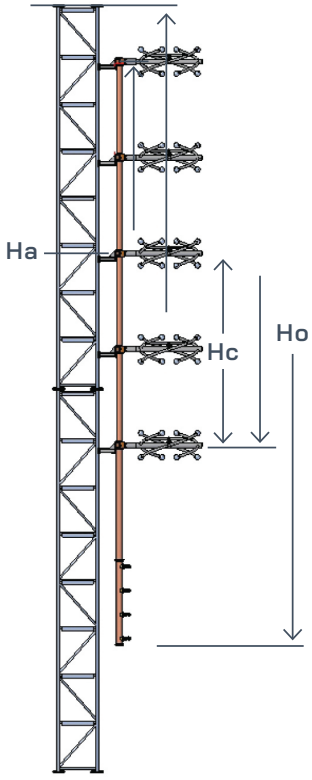
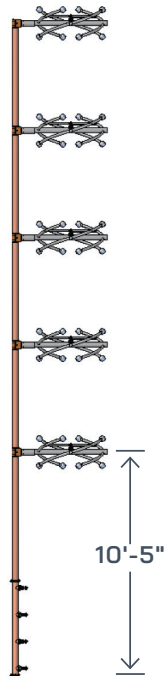
Mounting Dimensions



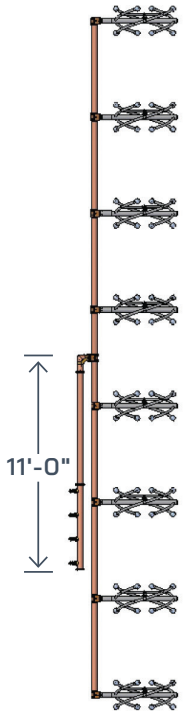
POLE MOUNTING



SIDE MOUNTING



END-FED
1-7 SECTIONS



CENTER-FED

Ha = Antenna aperture length
Hc = Antenna center of radiation
Ho = Antenna overall length needed for mounting
Ha = 984/f x [s(x-1)]
Hc = Ha/2
Ho end-fed = Ha + 5'top + 10' - 5"bottom
Ho center-fed = Ha + 5'top + 5'bottom

All dimensions in feet
f = frequency in megahertz (MHz)
s = bay spacing in fraction of wavelengths
example: ½ wavelength = .5
x = number of antenna bays

Note: Antennas ordered w/beam tilt and/or null fill are supplied with center feed and require even number of bays.

Deicer Specifications:
Power (nominal per bay): 1200 W
Voltage: may be wired for 208 V or
240 V service, single or three phase.

Optional

Ice sensor and deicer controller.

Mechanical Specifications

Antenna Type DCR-S or HDR-S	# of Bays	Without Randomes			
		Weight lbs (kg)		CaAc ft² (m³)	
		λ Spaced	½ λ Spaced	λ Spaced	½ λ Spaced
DCR-S1 HDR-S1	1	198 (90)	—	7.2 (.7)	—
DCR-S2 HDR-S2	2	322 (146)	307 (139)	14.1 (1.3)	12.6 (1.2)
DCR-S3 HDR-S3	3	451 (205)	421 (191)	21 (2.0)	18 (1.7)
DCR-S4 HDR-S4	4	581 (264)	536 (243)	27.9 (2.6)	23.4 (2.2)
DCR-S5 HDR-S5	5	710 (322)	650 (295)	34.8 (3.2)	28.8 (2.7)
DCR-S6 HDR-S6	6	840 (381)	765 (347)	41.7 (3.9)	34.2 (3.2)
DCR-S7 HDR-S7	7	969 (440)	879 (399)	48.5 (4.5)	39.5 (3.7)
DCR-S8 HDR-S8	8	1142 (518)	1037 (470)	55.7 (5.2)	45.2 (4.2)
DCR-S10 HDR-S10	10	1401 (635)	1266 (574)	69.5 (6.5)	56 (5.2)
DCR-S12 HDR-S12	12	1660 (753)	1495 (678)	83.3 (7.7)	66.8 (6.2)

Notes:
1. CaAc and weight includes bays and standard extension brackets for mounting. Excludes custom mounts. For antennas that include pattern studies, contact factory for additional information.
2. Dimensions are for antennas at 98.0 MHz and can vary ± 10% across the band.
3. Ice shields are strongly recommended for areas subject to icing conditions. Dielectric is not responsible for antenna damage caused by impact from falling ice.
4. Calculated area (CaAc) expressed in TIA/EIA-222-F standard.
5. Specs. are for a single DCR-S antenna array or HDR-S antenna array, not both.

With Randomes				With Deicers			
Weight lbs (kg)		CaAc ft² (m³)		Weight lbs (kg)		CaAc ft² (m³)	
λ Spaced	½ λ Spaced	λ Spaced	½ λ Spaced	λ Spaced	½ λ Spaced	λ Spaced	½ λ Spaced
335 (152)	—	11.2 (1.0)	—	197 (89)	—	7.7 (.7)	—
607 (275)	592 (269)	22.1 (2.1)	20.6 (1.9)	332 (151)	317 (144)	15.1 (1.4)	13.6 (1.3)
879 (394)	849 (385)	33.0 (3.1)	30.0 (2.8)	466 (211)	436 (198)	22.5 (2.1)	19.5 (1.8)
1151 (522)	1106 (502)	43.9 (4.1)	39.4 (3.7)	601 (273)	556 (252)	29.9 (2.8)	25.4 (2.4)
1423 (645)	1363 (618)	54.9 (5.1)	48.9 (4.5)	735 (333)	675 (306)	37.3 (3.5)	31.3 (2.9)
1695 (769)	1620 (733)	65.8 (6.1)	58.3 (5.4)	870 (395)	795 (361)	44.7 (4.2)	37.2 (3.5)
1967 (892)	1877 (851)	76.6 (7.1)	67.6 (6.3)	1004 (455)	914 (415)	52 (4.8)	43 (4.0)
2239 (1016)	2134 (968)	87.8 (8.2)	77.3 (7.2)	1182 (536)	1033 (468)	59.7 (5.5)	49.2 (4.6)
2753 (1249)	2618 (1188)	110.0 (10.2)	96.5 (9.0)	1451 (658)	1286 (583)	74.5 (6.9)	61 (5.7)
3267 (1481)	3102 (1407)	131.0 (12.2)	115.0 (10.6)	1720 (780)	1555 (705)	89.3 (8.3)	72.8 (6.8)

Electrical Specifications

Antenna Type DCR-S or HDR-S	Gain Polarization Spacing[1]				Power Rating kW[3]
	λ Spacing		½ λ Spacing		
	Power Gain	dB	Power Gain	dB	
DCR-S1 HDR-S1	0.46	-3.37	—	—	28
DCR-S2 HDR-S2	1.0	0	0.7	-1.55	40
DCR-S3 HDR-S3	1.5	1.76	1.0	0	40
DCR-S4 HDR-S4	2.1	3.22	1.3	1.14	40
DCR-S5 HDR-S5	2.7	4.31	1.6	1.76	40
DCR-S6 HDR-S6	3.2	5.05	1.8	2.55	40
DCR-S7 HDR-S7	3.8	5.80	2.1	3.22	40
DCR-S8 HDR-S8	4.3	6.34	2.3	3.62	40
DCR-S10 HDR-S10	5.5	7.40	2.9	4.62	40
DCR-S12 HDR-S12	6.6	8.2	3.5	5.44	40

Notes:
1. RMS gain data is given relative to dipole. Values are for midband and include standard harness configurations. Actual gain will vary depending on feed system, frequency, null fill, and beam tilt.
2. Average power ratings are nominal @ 40°C (104°F) ambient. Assumes constant pressurization with dry air or nitrogen. Ratings may vary based on specific feed system design and local conditions.
3. Higher power ratings and custom feed systems may be available on request.
4. Antenna components and feed harnesses are optimized for FM channels of interest.
5. Specifications are for a single DCR-S antenna array or HDR-S antenna array, not both.