# **POWERLITE™** Series

Radome Antenna

DCR-T-R FM





Performance for low power applications in demanding environments.

Equipped with a rugged radome for protection against ice and harsh weather, the economical DCR-T-R antenna brings the benefits of Dielectric's popular FM ring-style series to low-power applications. Along with all radiating elements, the kit comes complete with jumpers and power dividers for fast installation.

## **Specifications:**

- Ideal for Class A and B stations
- Circularly polarized
- Branch feed
- Field-adjustable to any FM channel from 88–108MHz
- IBOC compatible
- Low VSWR
- 1- to 8-bay configurations, full- or half-wave spaced
- Power rating up to 1 kW with 7–16 DIN input per bay
- High-impact ABS radome encloses each bay
- Null fill and beam tilt optional
- 1-5/8" EIA standard array input
- Lightweight, all-aluminum construction
- Integrated clamp-mount installs easily on a variety of towers
- Proof of performance required for FCC

#### **Electrical Specifications**

Band	Polarization	Circularity	VSWR	Input
FM 88-108 MHz	Circular	+/- 1 dB Free Space	w/o field trim: 1.2:1 Top mounted 1.5:1 Side mounted w/field trim: 1.07:1 (+/- 100 kHz)	Bay 7-16 DIN Array 1 5/8" EIA

#### **Mechanical Specifications – Individual Bay**

Height in (m)	Diameter in (m)	Weight lb(kg)	Wind Area <sup>1</sup> ft <sup>2</sup> (m <sup>2</sup> )
13.3 (0.34)	27.5 (0.7)	44.0 (20.0)	3.2 (0.3)

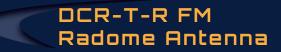
<sup>1</sup> Wind area  $C_A A_C$  per TIA/EIA-222-F ( $C_A = 1.4$ )

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NEW **POWERLITE™** Series



Antenna Type	# of Bays	full wave			RMS Gain half wave spaced (dBd)	Weight full wave spaced lb (kg)	Weight half wave spaced lb (kg)	Wind Area full wave spaced ft (m )	Wind Area half wave spaced ft (m )	Power rating kW
DCRT1	1	0.46	-3.37	0.46	-3.37	43.5 (19.8)	43.5 (19.8)	3.2 (0.3)	3.2 (0.3)	1.0
DCRT2	2	1	0	0.7	-1.55	99 (45.1)	98.5 (44.7)	7.6 (0.7)	7.3 (0.7)	2.0
DCRT3	3	1.5	1.76	1	0	149.5 (66.3)	144.1 (65.4)	11.8 (1.1)	11.2 (1.0)	3.0
DCRT4	4	2.1	3.22	1.2	0.79	194.2 (87.3)	160 (86.3)	16.5 (1.5)	15.2 (1.4)	4.0
DCRT5	5	2.7	4.31	1.5	1.76	244 (110.8)	236.5 (107.4)	21.8 (2.0)	19.4 (1.8)	5.0
DCRT6	6	3.2	5.05	1.8	2.55	301.8 (137.1)	298.2 (135.4)	25.1 (2.3)	23.6 (2.2)	6.0
DCRT7	7	3.8	5.8	2.1	3.22	350 (159.1)	344 (156.2)	30.2 (2.7)	27.6 (2.5)	7.0
DCRT8	8	4.3	6.34	2.3	3.62	398.4 (180.8)	390 (177.1)	35.1 (3.3)	31.7 (3.0)	8.0

## Notes:

- Wind area  $(C_AA_C)$  is calculated per the TIA/EIA-222-F standard
- RMS gain are for midband and include feed system losses. Actual gain will vary depending on frequency, and optional null fill and beam tilt
- C<sub>A</sub>A<sub>c</sub> include bays, power dividers, inter-bay feed lines and standard brackets for mounting

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