POWERLITE™ Series

DCR-T-R FM Radome Antenna

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[1] ft² (m²)
13.3 (0.34)	27.5 (0.7)	44.0 (20.0)	3.2 (0.3)

[1] Wind area $C_A A_C$ per TIA/EIA-222-F (C_A = 1.4)

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NEW **POWERLITE**™ Series

Dielectric®

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Antenna Type	# of Bays	RMS Gain full wave spaced (ratio)	RMS Gain full wave spaced (dBd)	RMS Gain half wave spaced (ratio)	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_AA_C include bays, power dividers, inter-bay feed lines and standard brackets for mounting