



Sing Hallelujah:

Dielectric[®]

**WILL HELP
YOUR FM
VOICE BE
HEARD!**

Whether you're **teaching** or **preaching**,
playing the classics or **delivering the news**,
Dielectric has the antenna with the perfect
power, price and profile for your station.

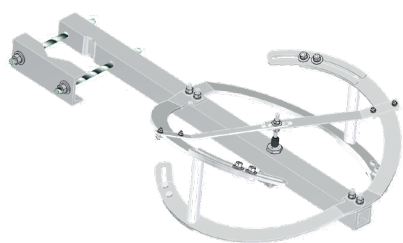
And we back up our leading-edge
technology with unmatched service:

- **Dedicated radio specialists**
- **24/7 Emergency response**
- **Quick ship**

Dielectric.com

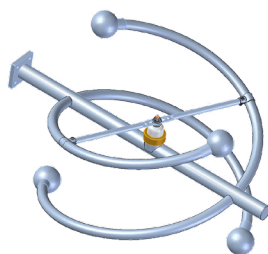
SEE **REVERSE** FOR **THREE** OF OUR
MANY **FM ANTENNA** OPTIONS!

ALL ANTENNAS PROVIDE STANDARD SINGLE STATION OMNI-DIRECTIONAL SERVICE



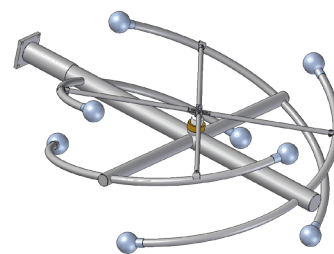
POWERLITE™ (DCR-T)

Omni & Directional
FM Translators and Local
Community Stations



DCR-H

Medium-Power
College/University and
Class A Stations



DCR-M

Medium/High-Power
Regional Stations

SPECIAL USE CASE STUDY

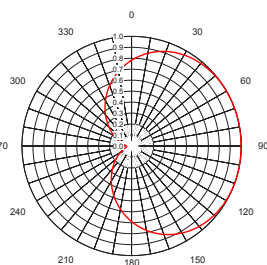
Simple, cost-effective and high-performance

CHALLENGE

FM translator required broad coverage over 270 degrees of azimuth, but tightly reduced radiation to antenna's rear.

SOLUTION

Dielectric DCR-T2 antenna array with the two bays half-wavelength-spaced vertically and offset from each other horizontally.



SPECIAL USE CASE STUDY

An affordable choice with an array of benefits

CHALLENGE

University radio station with FM broadcast antenna on student union wanted to reduce the RF radiation on the building's rooftop, improve reception by reducing signal's multipath, and improve program audio quality.

SOLUTION

Dielectric DCR-H3 antenna array, with half-wavelength-spaced bays, transmits the signal with a reduced vertical plane beam width. This lowers the RF signal on the building's rooftop and scatter from nearby structures, resulting in less signal multipath. The antenna's RF bandwidth noticeably increases high-frequency audio performance of signal.

SPECIAL USE CASE STUDY

A cost-effective and compact solution

CHALLENGE

Major market broadcaster wanted to replace a single-station auxiliary antenna with a two-station antenna, using the same space and loading on the tower.

SOLUTION

Dielectric DCR-M3 with 0.66 wavelength antenna bays provides the RF bandwidth for two stations spaced 5.5 MHz from each other, with more gain than the typical (and costlier) 0.5 wavelength-spaced antenna bay solution. The DCR-M offers unmatched signal circularity and transmission performance to automobiles and fixed receiver locations.

SPECIFICATIONS: INDIVIDUAL BAY

ANTENNA	DCR-T	DCR-H	DCR-M
IBOC Capable	Yes	Yes	Yes
Multi-Station Capable	No	No	Yes*
Directional Capable	Yes	Yes	Yes
Power kW Rating	1	4	18
Weight (lb/kg)	17.5/8.0	17.5/8.0	17.5/8.0
Input	$\frac{7}{16}$ DIN Bay ($1\frac{5}{8}$ " EIA for array)	$1\frac{5}{8}$ " EIA	$3\frac{1}{8}$ " EIA ($4\frac{1}{16}$ " EIA for large array)

*See DCR-M Case Study

TYPICAL ARRAY GAINS (APPLIES TO ALL 3 ANTENNAS)

# of Bays	Gain—Full Wavelength	Gain—Half Wavelength
1	0.46 (-3.37 dBi)	—
2	1.0 (0 dBi)	0.7 (-1.55 dBi)
4	2.1 (3.22 dBi)	1.3 (1.14 dBi)
6	3.2 (5.05 dBi)	1.8 (2.55 dBi)
8	4.3 (6.34 dBi)	2.3 (3.62 dBi)
12	6.6 (8.2 dBi)	3.5 (5.44 dBi)

SO CHOOSE **DIELECTRIC**, AND TURN YOUR **RADIO ON**.

