

CONNECTING
PEOPLE +
TECHNOLOGY

www.amphenol-antennas.com

LTE OMNI ANTENNAS WITH **NULL FILL**

THE SOLUTION TO YOUR DEMANDING
COVERAGE NEEDS

Achieving increased coverage range with a high-gain omni antenna comes at a cost.

The nature of a high-gain design creates gaps in the coverage area, directly below the antenna, known as nulls. These nulls create poor coverage areas right where users might be located, underneath the mast and in the surrounding areas.

NULL FILL antennas are designed and deployed to overcome this phenomena by smoothing out the antennas' pattern which in turn fills those nulls in, providing uniform coverage and performance across the entire cell in which the antenna is operating.

Amphenol offers the **4250 SERIES** colinear antennas for these demanding applications - operating at 695-870 and 790-960 MHz with 9 dBd (11.2 dBi) gain and multiple tilt options. These models come with wide bandwidth characteristics for Cellular and other multi-channel communications systems. Built to withstand the harshest conditions, they are IP rated, come with lightning protection and meet wind survival speeds of 180 mph.



Amphenol

ANTENNA SOLUTIONS

LTE Omni Antennas

Featuring Null Fill

AMPHENOL offers a full range of LTE omni antennas covering 695-870 and 790-960 MHz. The **4250 SERIES** is designed for demanding applications where durable and high performance colinear antennas are required. High quality materials and manufacturing techniques are employed to ensure that the antennas have best-in-class performance.



MODEL	4250.09-780-Tx	4250.09-875-Tx
Description	Single Band, 1-Port 695-870 MHz, Omni, VPOL, 11.2 dBi, Fixed Tilt 0°, 3° or 6° with 25% Null Fill	Single Band, 1-Port 790-960 MHz, Omni, VPOL, 11.2 dBi, Fixed Tilt 0°, 3° or 6° with 25% Null Fill
ELECTRICAL SPECIFICATIONS		
Frequency Range	695-870 MHz	790-960 MHz
Input Impedance	50Ω	50Ω
VSWR	< 1.5:1	< 1.5:1
H-Plane Ripple	< ±0.5 dB	< ±0.5 dB
Input Power (Continuous)	480 Watts	480 Watts
Peak Instantaneous Power (PIP)	25 kW	25 kW
Polarization	Vertical	Vertical
Gain	11.2 dBi	11.2 dBi
Horizontal Beamwidth (3 dB)	360°	360°
Vertical Beamwidth (3 dB)	5.5° ± 0.5°	5.5° ± 0.5°
Electrical Downtilt	0°, 3°, 6°	0°, 3°, 6°
Lower Sidelobe Control (Null Fill)	25% (-12.4 dB)	25% (-12.4 dB)
Intermodulation (2x Tx @ 43 dBm)	-153 dBc, 3rd order	-153 dBc, 3rd order
Antistatic Protection	All metal parts DC Grounded (Connector shows a DC short)	All metal parts DC Grounded (Connector shows a DC short)
Lightning Protection	200 kA	200 kA
MECHANICAL SPECIFICATIONS		
Connector	7/16-DIN Female	7/16-DIN Female
Construction Material	Antenna Base	Aluminium
	Shroud	GRP Tube Ø53 mm (Ø2.1 in)
	Radiating Element	Brass
Mounting Section	Al. Tube Ø63.5 mm (Ø2.5 in) x 350 mm (13.8 in) Length	Al. Tube Ø63.5 mm (Ø2.5 in) x 350 mm (13.8 in) Length
Length	4160 mm (163.8 in)	3850 mm (151.6 in)
Diameter	53 mm (2.1 in)	63.5 mm (2.5 in)
Weight	9 kg (20 lbs)	8.5 kg (19 lbs)
Wind Loading @ 45ms ⁻¹	333 N (69.0 lbf)	309 N (69.5 lbf)
Survival Wind Speed	300 km/h (186 mph)	300 km/h (186 mph)
IP Rating	IP56	IP56
Mounting Kit - Parallel Bracket	2141.01.00.00 Fits up to Ø120 mm (Ø4.7 in)	2141.01.00.00 Fits up to Ø120 mm (Ø4.7 in)