

10 dBd HD Omni Deepwave Antenna

740–870 MHz

DS040369-1B

Model: 104DW-81-10-xx-xx



Description

- The Deepwave Series colinear antennas are designed for LTE/GSM applications where a durable and high-performance antenna is required.
- The center-fed dipole design and feed network give a stable radiation pattern across a wide bandwidth and allow tilted beam designs to be employed without large pattern distortions.
- High-quality materials and manufacturing techniques ensure excellent intermodulation performance and wide bandwidth characteristics for multi-channel trunked radio communication systems.
- The antenna has been designed to withstand lightning strike. A lightning finial (optional) can be fitted into the top cap via an M10 thread and an earth connection made to the antenna base or clamp.

Electrical Specifications

Parameter	Value
Frequency	740 – 870 MHz
Max. Input Power	600 W
Omni Deviation	$< \pm 1$ dB
Polarization	Vertical
Peak Instantaneous Power (PIP)	25 kW
3 dB Beamwidth, E-Plane	$6^\circ \pm 1^\circ$
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	10.0 dBd (12.2 dBi) Nominal
VSWR	$< 1.5:1$
Passive Intermodulation	-153 dBc (3rd Order, 2 x Tx @ 43 dBm)
Lightning Protection	Lightning current handling capability: 200 kA (Test pulse 10/350 μ s) according to EN 62305-1
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)



Mechanical Specifications

Parameter	Value
Connection(s)	104DW-81-10-xx-D7: 7/16 DIN Female; 104DW-81-10-xx-D4: 4.3/10 DIN Female
Materials	Antenna Base: Aluminium LM25; Shroud: GRP tube 128 mm dia.; Radiating element: Brass
Mounting	Flanged base with 6 hole fixing on 190.5 mm PCD
Length	3505 mm (138 in)
Wind Load	530 N (160 km/h)
Weight	22 kg (48.5 lb)

Environmental Specifications

Parameter	Value
Survival Wind Speed	240 km/h
Ingress Protection	IP56

Ordering

Model	Description
104DW-81-10-00-D7	0° Tilt, 7/16(f)
104DW-81-10-01-D7	1° Tilt, 7/16(f)
104DW-81-10-02-D7	2° Tilt, 7/16(f)
104DW-81-10-03-D7	3° Tilt, 7/16(f)
104DW-81-10-04-D7	4° Tilt, 7/16(f)
104DW-81-10-05-D7	5° Tilt, 7/16(f)
104DW-81-10-00-D4	0° Tilt, 4.3/10(f)
104DW-81-10-01-D4	1° Tilt, 4.3/10(f)
104DW-81-10-02-D4	2° Tilt, 4.3/10(f)
104DW-81-10-03-D4	3° Tilt, 4.3/10(f)
104DW-81-10-04-D4	4° Tilt, 4.3/10(f)
104DW-81-10-05-D4	5° Tilt, 4.3/10(f)
91-00-104A-1	Pole Mount Adaptor
91-00-104A-4	Guy Line Adaptor Kit
91-00-104A-5	Lightning Finial Kit

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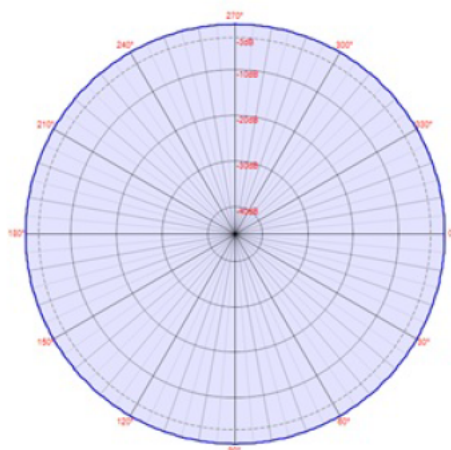


Accessories

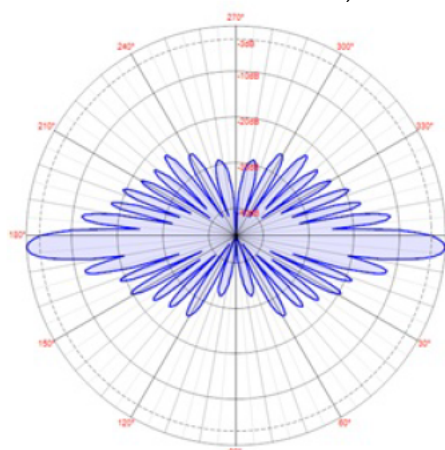
Pole Mount Adaptor 91-00-104A-1 for mounting antenna to 3" - 4.5" (76 - 114mm) diameter pole.	Guy Line Adaptor Kit 91-00-104A-4 (Non-conductive guy lines are recommended)	Lightning Finial Kit 91-00-104A-5
		

Radiation Pattern

Azimuth Pattern

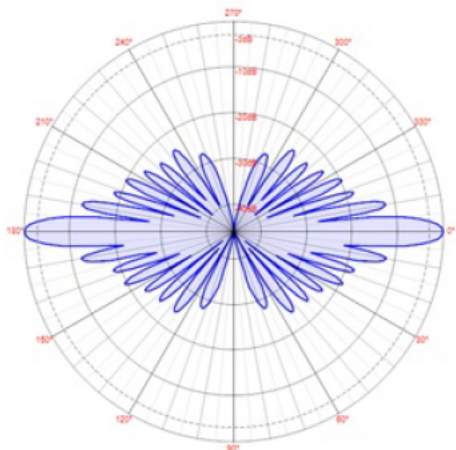


Elevation Pattern, 3°

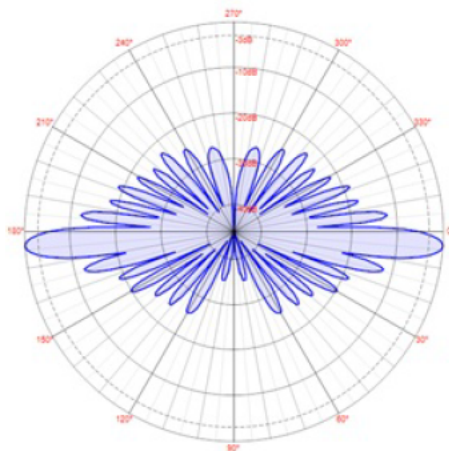




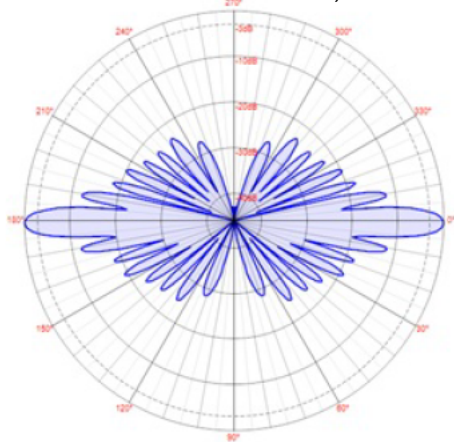
Elevation Pattern, 0°



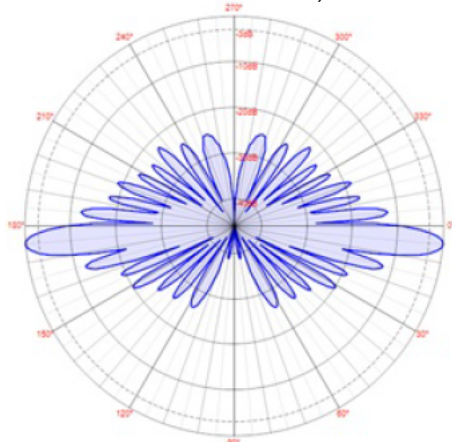
Elevation Pattern, 4°



Elevation Pattern, 1°



Elevation Pattern, 5°



Elevation Pattern, 2°

