LP-IN2830



- Cost effective 2G/3G/4G/5G antenna solution
- Designed for bracket or cabinet/enclosure installation
- Integral 1m (3') double shielded coaxial cable
- IP68 rated

LP-IN2830 is an omni-directional broad band antenna range covering 617-960/1427-6000MHz which has been specially adapted for use in hostile, frequently flooded environments for applications like sewer monitoring and water metering.

The antenna is designed to be wall, mast or panel mounted either using a bracket (not supplied) or on a device / enclosure. The exposed metal parts of the antenna body are 316 stainless steel making the antenna very resistant to corrosion.

The omni-directional radiation pattern allows easy placement of the antenna in any position, without requiring directional alignment.

The LP-IN2830 antenna is supplied with an integral ultra-low loss FR CS29 coaxial cable, of various lengths, fitted a special SMA plug which forms a seal preventing water wicking up the cable into the antenna housing during submersion.

This antenna is protected to IP68 even when mounted on a bracket provided that the SMA plug is properly connected.

-ANTENNA RADOME MOULDED IN LEXAN EXL9330 -BLACK 548 2-0418-SS-316 F3-0222-SS-316 M12 HALF NUT PERMITTED) 82 T M12 x 1.75 - 6g 316 STAINLESS STEEL (ALTERNATIVES NOT PERMITTED) 1.00 ADHESIVE PAD - 3M 5952 x2 SILICONE GASKETS -M12 SEALING CAP 316 STAINLESS STEEL (ALTERNATIVES NOT PERMITTED) - SP5-0702-SS-316 - Ø 5mm CS29 COAX CABLE 1m ±30mm LONG (E<u>X</u> ISO VIEW SCALE 1:4 CABLE FLAG tog -HEAT SHRINK SLEEVE 4G/5G - YELLOW, BLACK TEXT 40) 븝 ADHESIVE LINED BLACK HEAT SHRINK -IP68 SMA PLUG (SC1-SMA-GTRX-PC10) (ALTERNATIVES NOT PERMITTED)

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Technical Drawing

LP-IN2830 Shown

Product Data

Part No.				
		LP-IN2830		
Electrical Data				
Frequency Range (MHz)		617-960 / 1427-6000		
Operational Band		2G / 3G / 4G / 5G		
Typical VSWR*		<3:1		
Peak Gain* (dBi)	617-960MHz	2.8		
	1427-2700MHz	3.6		
()	3300-6000MHz	5.5		
Polarisation		Vertical		
Pattern		Omni-directional		
Impedance		50Ω		
Max Input Power (W)		30		
Mechanical Data				
Dimensions	Height mounted	82mm (3.2")		
Dimensione	Diameter	48mm (1.89")		
Operating Temp (°C)		-40° / +85°C(-40° / 185°F)		
Material		Lexan EXL 9330, 316 Stainless Steel		
Material Approvals		Radome ASA Material - UL 746C F1, UL 94-V0		
Colour		Black		
Ingress Protect	ion	IP68		
Mounting Data				
Fixing		Panel mount		
Mounting Hole Diameter		12 mm (0.5")		
Cable Data				
Туре		FR CS29		
Diameter		5mm (0.2")		
Length		1m (3.3')		
Termination		IP68 SMA Plug		

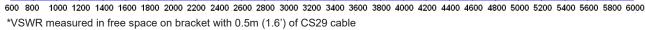
* Typical VSWR and peak gain measured in free space on bracket with 0.5 m (1.6') of CS29 cable

LP-IN2830

Electrical Data Cell-Free Space on bracket

Measurement Conditions	4G/5G Antenna			
	Frequency Range (MHz)	LTE Bands	Peak Gain (dBi)	Efficiency (%)
LP-IN2830 measured in free space on bracket with 0.5m (1.6') of CS29 Cable	617-698	71, 105	2.0	75
	699-798	12,13, 14 17,28	2.4	77
	807- 862	5,19,20,26,27	2.4	71
	880-960	8	2.8	64
	1427-1518	11, 21, 74,75,76	3.6	72
	1710-1920	2,3,4,9,25,35,39,66	2.6	71
	1920-2170	1,23	2.6	71
	2300-2400	30,40	3.0	70
	2496-2690	7,38,41	3.4	72
	3300-4200	22,42,43,48,77,78	5.5	78
	4400-5000	79	4.9	62

Typical VSWR* 5 4.5 4 3.5 3 2.5 2 1.5



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Electrical Data Cell-Free Space on bracket

LP-IN2830



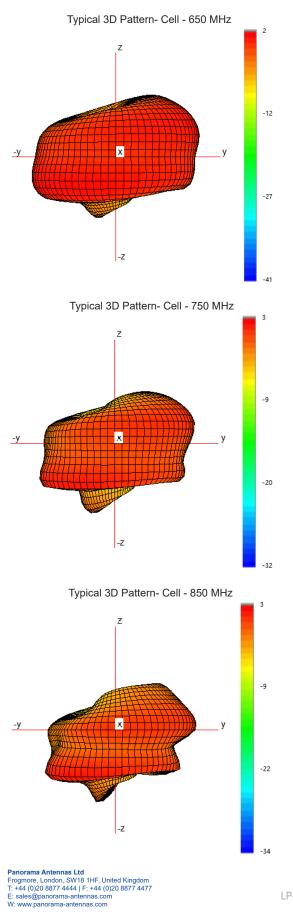
*Efficiency measured in free space on bracket with 0.5m (1.6') of CS29 cable

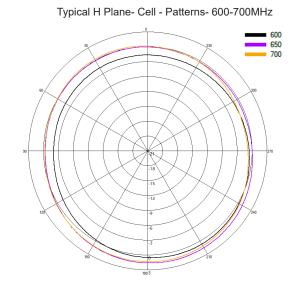


*Peak Gain measured in free space on bracket with 0.5m (1.6') of CS29 cable

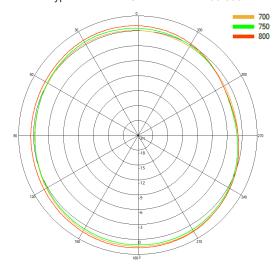
LP-IN2830

3D Pattern Data in Free Space on bracket Cell

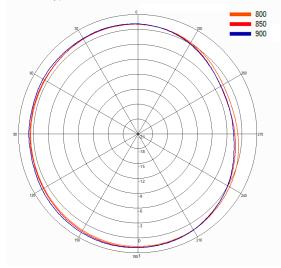




Typical H Plane- Cell - Patterns- 700-800MHz



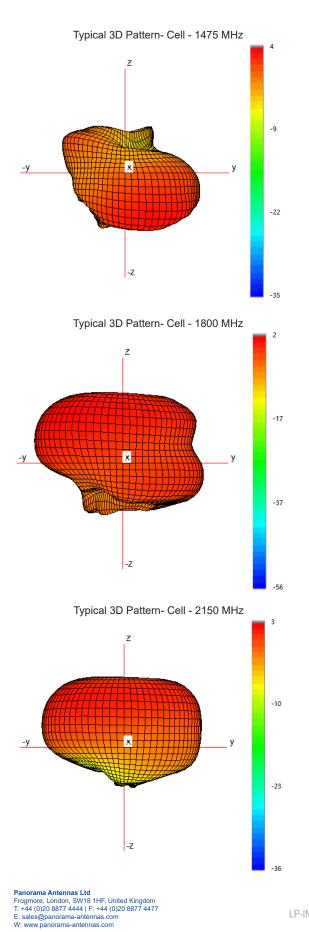
Typical H Plane- Cell - Patterns- 800-900MHz

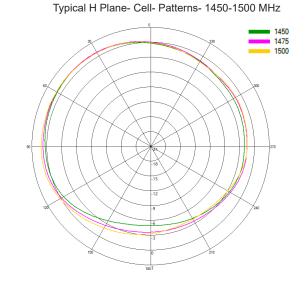


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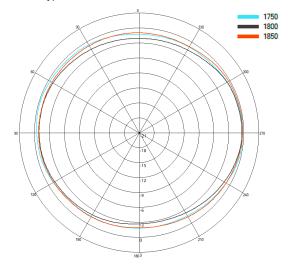
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3D Pattern Data in Free Space on bracket Cell

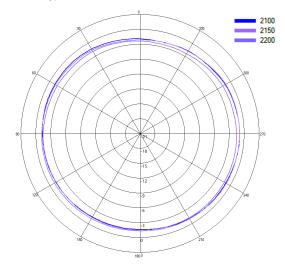




Typical H Plane- Cell- Patterns- 1750-1850 MHz



Typical H Plane- Cell- Patterns- 2100-2200 MHz

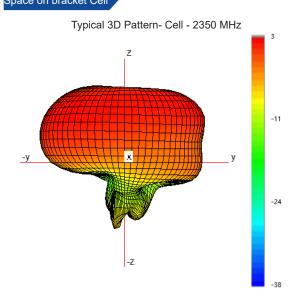


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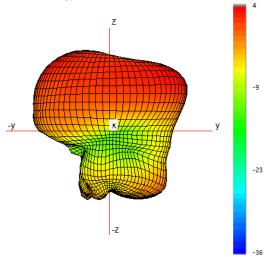
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LP-IN2830

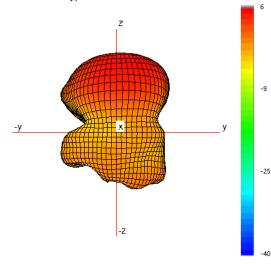
3D Pattern Data in Free Space on bracket Cell



Typical 3D Pattern- Cell - 2650 MHz

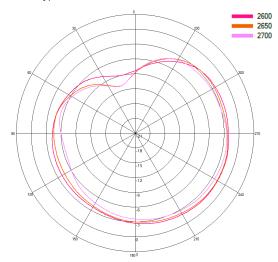


Typical 3D Pattern- Cell - 3600 MHz

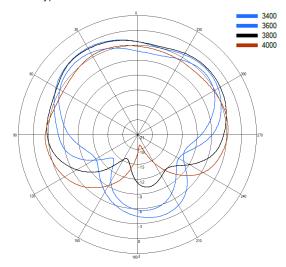


Typical H Plane- Cell - Patterns- 2300-2400 MHz 2300 2350 2400

Typical H Plane- Cell - Patterns- 2600-2700 MHz



Typical H Plane- Cell - Patterns- 3400-4000 MHz

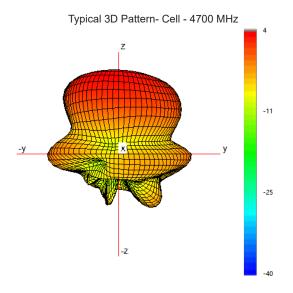


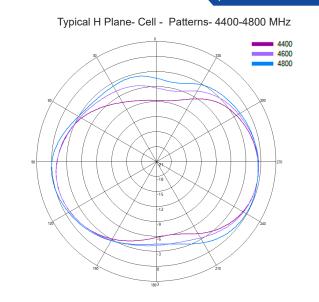
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3D Pattern Data in Free Space on bracket Cell

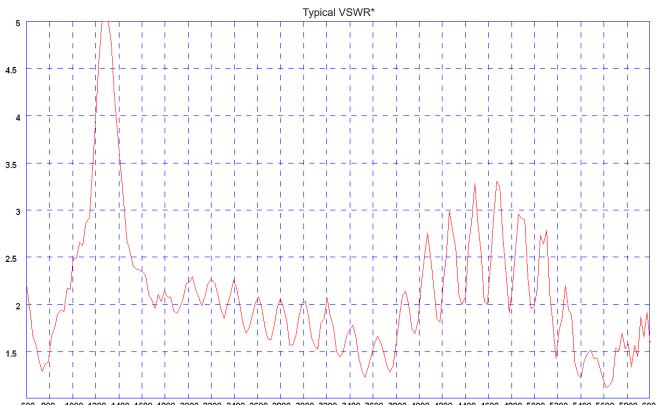




LP-IN2830

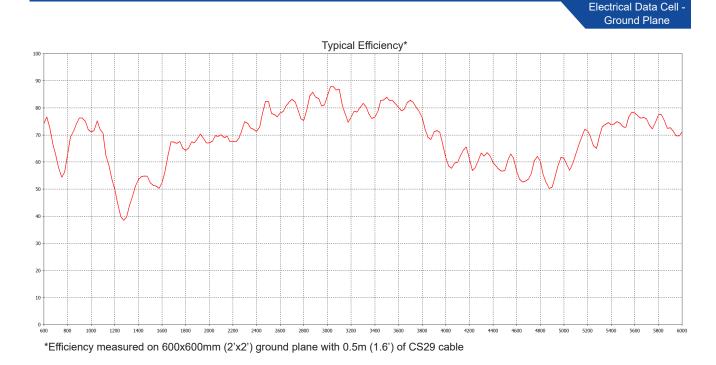
Electrical Data Cell -Ground Plane

Measurement Conditions	4G/5G Antenna			
	Frequency Range (MHz)	LTE Bands	Peak Gain (dBi)	Efficiency (%)
LP-IN2830 measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS29 Cable	617-698	71, 105	3.8	71
	699-798	12,13, 14 17,28	3.1	59
	807- 862	5,19,20,26,27	3.5	69
	880-960	8	3.9	75
	1427-1518	11, 21, 74,75,76	4.1	54
	1710-1920	2,3,4,9,25,35,39,66	4.7	67
ARR E778	1920-2170	1,23	4.6	69
	2300-2400	30,40	4.1	73
	2496-2690	7,38,41	4.7	80
	3300-4200	22,42,43,48,77,78	6.7	74
	4400-5000	79	5.6	57



600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200 5400 5600 5800 6000 *VSWR measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS29 cable

LP-IN2830

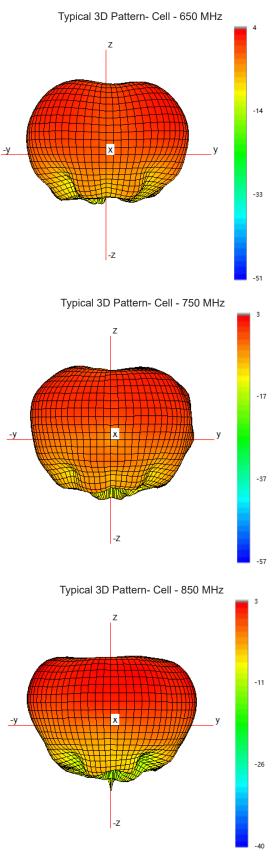




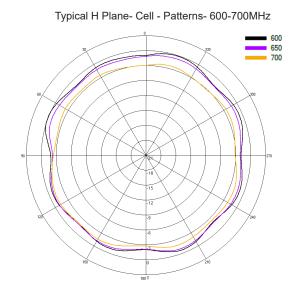
*Peak Gain measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS29 cable

LP-IN2830

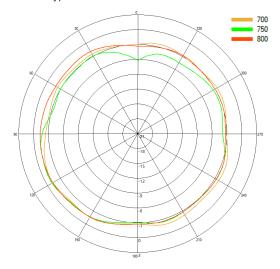
3D Pattern Data on Ground Plane Cell



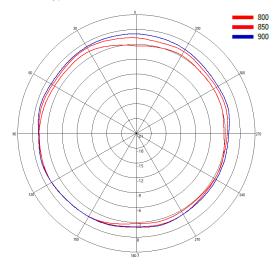




Typical H Plane- Cell - Patterns- 700-800MHz



Typical H Plane- Cell - Patterns- 800-900MHz



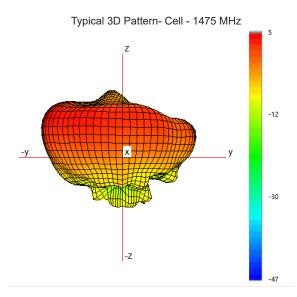
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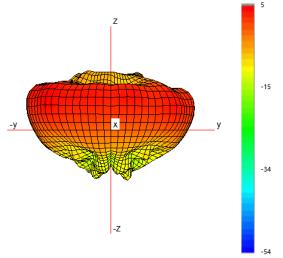
Typical H Plane- Cell- Patterns- 1450-1500 MHz

4G/5G Low Profile Antenna PANORAMA (2) ANTENNAS LP-IN2830

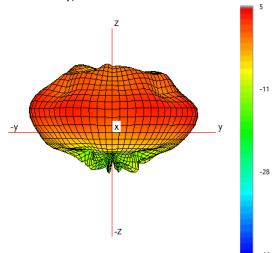
3D Pattern Data on Ground Plane Cell



Typical 3D Pattern- Cell - 1800 MHz

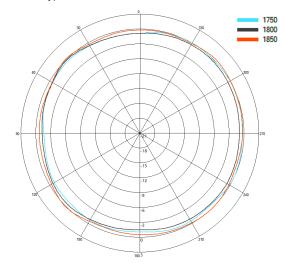


Typical 3D Pattern- Cell - 2150 MHz

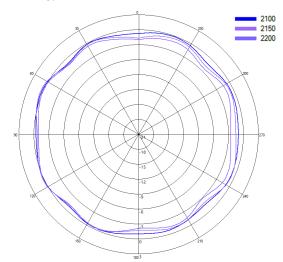


1450 1475 1500

Typical H Plane- Cell- Patterns- 1750-1850 MHz



Typical H Plane- Cell- Patterns- 2100-2200 MHz



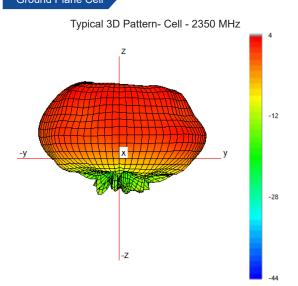
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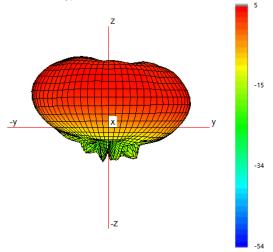
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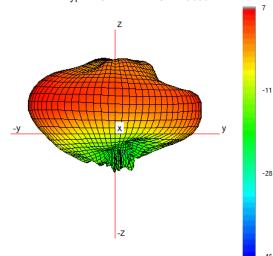
3D Pattern Data on Ground Plane Cell

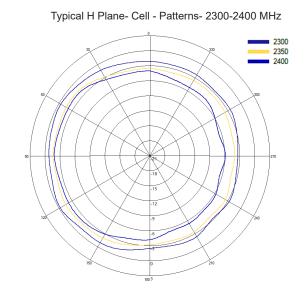


Typical 3D Pattern- Cell - 2650 MHz

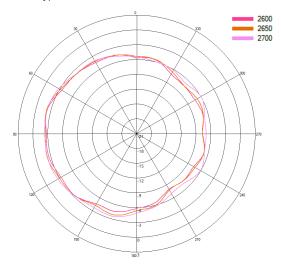


Typical 3D Pattern- Cell - 3600 MHz

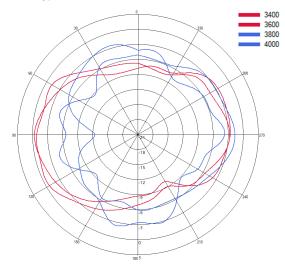




Typical H Plane- Cell - Patterns- 2600-2700 MHz



Typical H Plane- Cell - Patterns- 3400-4000 MHz

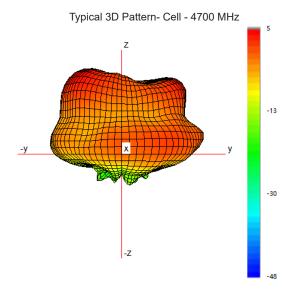


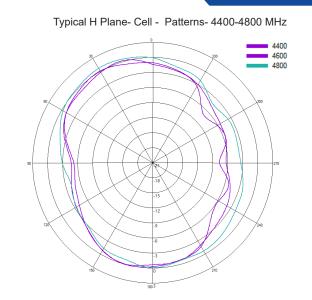
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3D Pattern Data on Ground Plane Cell





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