

ST421R

Omni antenna, 0 dBd gain, low profile, radome, 870-960 MHz

- Highly durable omni-directional radome antenna
- Covers both public GSM and railway GSM-R frequency bands
- Ideal for train use where antenna height is limited

The ST421 is an omni-directional antenna which covers both the public GSM and railway GSM-R frequency bands.

The ST421 is an extremely rugged radome-enclosed antenna specifically designed for rail and heavy transport applications. Its low profile makes it ideal for train use where antenna height is limited by restrictive loading gauges.

DC grounding provides protection against lightning and overhead catenary strikes.



Application Notes

- For proper operation, the ST421 should be mounted on a ground plane with a minimum size of 10x10 inches).
- IP rating = 65

Model

[ST421R-SF1SNF](#)
[ST421R-SF2SNF](#)
[ST421R-SF3SNF](#)

Description

0 dBd gain, N (female) connector, 764-806 MHz
0 dBd gain, N (female) connector, 806-870 MHz
0 dBd gain, N (female) connector, 870-960 MHz

Pattern

Omni-directional
Omni-directional
Omni-directional



Australian Representatives

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Product Specification Sheet		ST421R		Dated: 05-02-10

ST421R-SF1SNF

ST421R-SF2SNF

ST421R-SF3SNF

Electrical Specifications

Frequency Range, MHz	764 to 806	806 to 870	870 to 960
Gain (nominal), dBd (dBi)	unity (2.1)	unity (2.1)	unity (2.1)
Input VSWR (max)	1.5:1	1.5:1	1.5:1
Polarization	vertical	vertical	vertical
Impedance, Ω	50	50	50
Pattern	Omni-directional	Omni-directional	Omni-directional
Vertical beamwidth, degrees	60	60	60
Average Power Input (max), W	200	200	200
Lightning protection	DC ground	DC ground	DC ground
Bandwidth, MHz	42	64	90

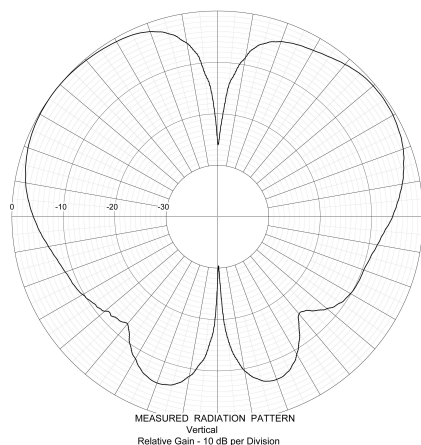
Mechanical Specifications

Connector	N-Female (Socket)	N-Female (Socket)	N-Female (Socket)
Length/ Height, in (mm)	2.1 (53)	2.1 (53)	2.1 (53)
Width, in (mm)	3.7 (94)	3.7 (94)	3.7 (94)
Radome material	Grey, Fiberglass	Grey, Fiberglass	Grey, Fiberglass
Weight, lbs (kg)	0.8 (0.3)	0.8 (0.3)	0.8 (0.3)
Actual Shipping weight, lbs (kg)	2.5 (1.1)	2.5 (1.1)	2.5 (1.1)
Shipping dimensions, in (mm)	5x5x8inch12.5x12.5x20cm ()	5x5x8inch12.5x12.5x20cm ()	10x5x5in254x127x127mm ()
Length, in (mm)	7.4 (188)	7.4 (188)	7.4 (187)
Ground Plane, in (mm)	10x10x0.1 (254x254x3)	10x10x0.1 (254x254x3)	10x10x0.1 (254x254x3)
Mounting hardware	BOLT M6 x 25, A2	BOLT M6 x 25, A2	BOLT M6 x 25, A2

Environmental Specifications

Temperature range, °F (°C)	-22 to +140 (-30 to +60)	-22 to +140 (-30 to +60)	-22 to +140 (-30 to +60)
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SINCLAIR TECHNOLOGIES



ST421R-SF1SNF

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