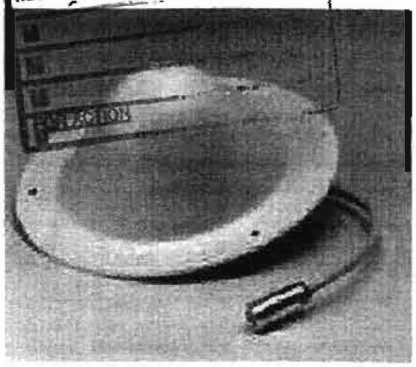
MAT JAYBEAM

OMNIDIRECTIONAL ANTENNA

380 - 400 MHz

ACK'D
REPLIED
RECD 2 9 MAY 2008

MA521P00

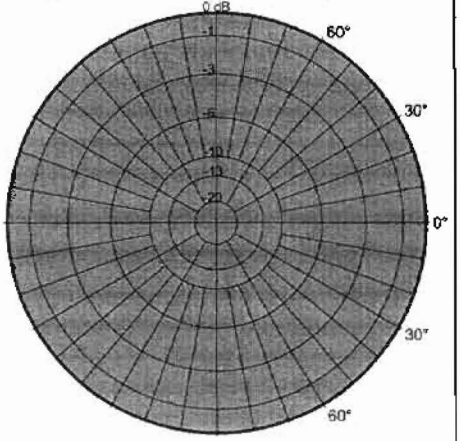


MA521P00 is a shrouded low profile omnidirectional antenna intended for indoor coverage by ceiling installation. It is fitted with a 0.5 meter coaxial cable and a N female connector

TECHNICAL DATA :

Product code	MA521P00
Frequency range	380 to 400 MHz
Nominal Impedance	50 ohms
VSWR	≤ 2
Polarisation	linear, vertical
Gain	0 dBi (at connector level))
Radiation in horizontal plane	omnidirectional within ± 0.5 dB
Radiation in vertical plane	beamwidth (E plane) at –3 dB : ≈ 80°
Maximum power	3 watts
Connection	at the back of the antenna, by a 0.5 meter RG58 black coaxial cable with N female connector at the end
Dimension	height : ≈ 70 mm diameter: ≈ 204 mm
Weight	≈ 470 g
Materials / colours	shroud : white plastic back plate : aluminium, natural

Typical radiation in horizontal plane :

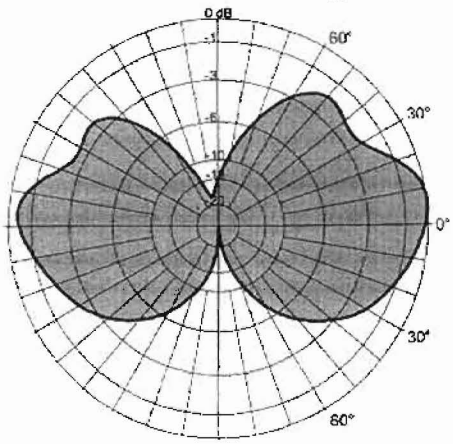


Grounding All the metallic parts of the antenna are DC connected to the connector ground, including the inner conductor of the connector and the back plate.

Installation By three holes with the screws and wall plugs supplied with the antenna. Three white caps are supplied to hide the screws after installation.

Note : Metal in the ceiling structure affects the antenna. On a fully metallic ceiling, maximum VSWR is 2.3 and radiation is totally downwards.

Typical radiation in vertical plane :
(in free space antenna facing downwards or on non metallic ceiling)

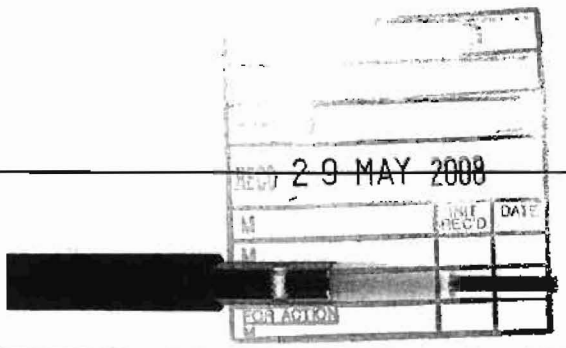


We reserve the right to modify our products without prior notice.

MAT Equipement - ZI La Boitardière - Chemin du Roy - 37400 Amboise - France - Tel. : +33 (0)2 47 30 69 70
JAYBEAM - Rutherford drive - Park Farm South - Wellingborough - Northants - NN8 6AX - UK - Tel : +44 (0) 1933 408408

RADIAFLEX® Radiating Cable

1/2" RADIAFLEX® RLKU Cable, A-series



RLKU12 SERIES	
Cable Type	RLK
Size	1/2"
Slot Design	Groups of vertical slots at short intervals
Maximum Frequency, MHz	2650
STRUCTURE	
Inner Conductor Material	Copper Clad Aluminum Wire
Diameter Inner Conductor, mm (in)	4.4 (0.17)
Outer Conductor Material	Overlapping Copper Foil
Diameter Outer Conductor, mm (in)	11.4 (0.45)
Diameter over Jacket, mm (in)	14.7 (0.58)
MECHANICAL SPECIFICATIONS	
Minimum Bending Radius, Single Bend, mm (in)	200 (7.9)
Tensile Force, N (lb)	1300 (292)
Storage Temperature, °C (°F)	-70 to +85 (-94 to +185)
Operation Temperature, °C (°F)	-50 to +85 (-58 to +185)
Installation Temperature, °C (°F)	-25 to +60 (-13 to +140)
Recommended Clamp Spacing, m (ft)	0.5 (1.6)
Minimum Distance to Wall, mm (in)	80 (3.15)
Indication of Slot Alignment	Bulge atop slots
ELECTRICAL SPECIFICATIONS	
Impedance, ohm	50 +/-2
Velocity, %	88
Inner Conductor dc Resistance, ohm/1000 m (1000 ft)	2.0 (0.61)
Outer Conductor dc Resistance, ohm/1000 m (1000 ft)	4.1 (1.25)
Stop bands, MHz	650-750, 1330-1430, 2025-2100

RLKU12-50JA/JFNA/JFLA

PERFORMANCE		
Frequency, MHz	Longitudinal Loss, dB/100 m (dB/100 ft)	Coupling Loss 50%/95%, dB
75	2.17 (0.66)	53/63
150	3.10 (0.94)	61/72
450	5.74 (1.75)	68/79
800	8.75 (2.67)	59/65
870	9.21 (2.81)	60/66
900	9.40 (2.86)	60/66
960	9.73 (2.97)	60/66
1800	22.0 (6.70)	57/67
1900	22.7 (6.92)	57/67
2000	23.48 (7.16)	56/66
2200	25.5 (7.76)	55/63
2400	27.9 (8.51)	54/63
2600	30.5 (9.30)	54/63

CONNECTOR & ACCESSORIES	
Connectors	See page 442
Accessories	See page 443

ORDERING INFORMATION		
Model Number	**Jacket**	**Cable Weight, kg/m (lb/ft)**
RLKU12-50JA	Standard	0.29 (0.20)
RLKU12-50JFNA	Flame/Fire Retardant, Low Smoke	0.34 (0.23)
RLKU12-50JFLA	Flame/Fire Retardant, Low Smoke	0.34 (0.23)

Product Details For 1/2 Inch LL RF Cable

Product Code: LCF 12 50



LCF12-50

Pack Size: M

Description: 1/2 Inch Low Loss 50 Ohm RF cable

J Standard jacket Black Polyethylene
JGR Grey
JFN Flame and Fire Retardant

PLANNING		
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