

Inbuilding

CMM3-49 Range

3x3 MiMo Ceiling Mount Antenna

07/11/2014 V1



Low profile ceiling mount design

3x3 MiMo 4.9-6GHz

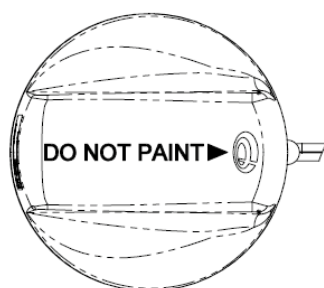
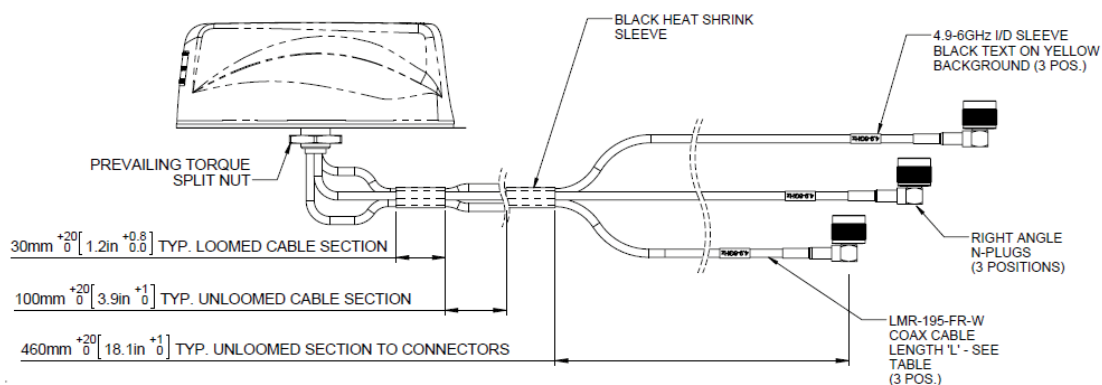
4' (1.2m) or 6' (1.8m) jumper leads

The CMM3-49 range of ceiling antennas offer a compact and robust way to provide 3x3 MiMo in-building or DAS coverage for 4.9-6GHz networks. Concealed beneath the flame retardant, halogen-free antenna housing are three isolated elements capable of supporting WLAN and WIMAX networks from 4.9-6GHz.

Suitable for indoor or outdoor use the antenna only requires one mounting hole for installation.

The antenna is supplied with 1.2m (4') or 1.8m (6') Times Microwave LMR-195 jumper cables for easy connection.

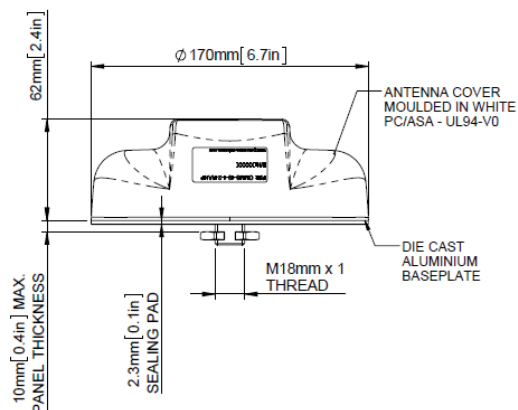
Technical Specification



PART No.	LENGTH 'L'
CMM3-49-1-2-RANP	1.2m
CMM3-49-1-8-RANP	1.8m

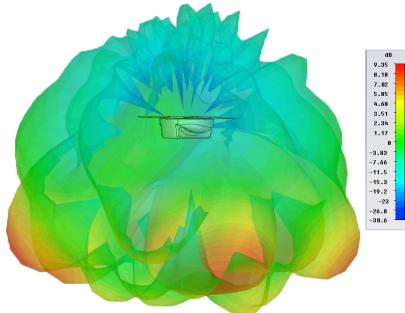
OPERATING FREQUENCIES:

4.9-6 GHz

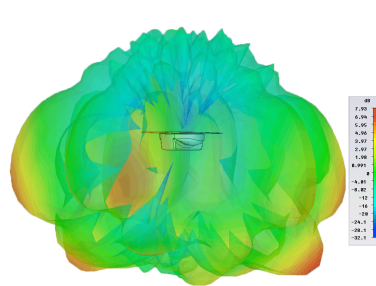


3D Gain Plots - all elements fed - side view

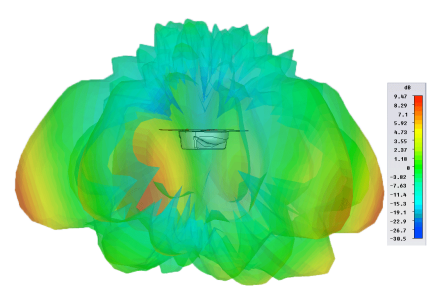
3D Gain Plot all elements fed (4.9 GHz)



3D Gain Plot all elements fed (5.4 GHz)

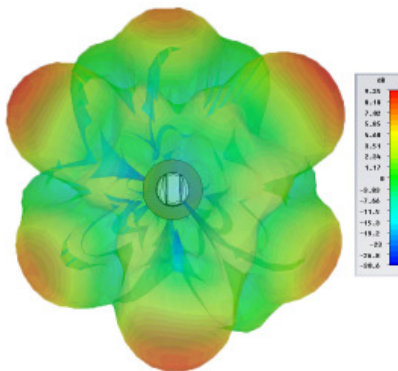


3D Gain Plot all elements fed (5.8 GHz)

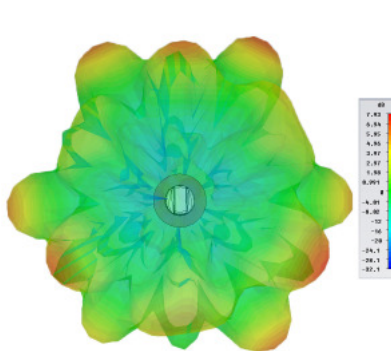


3D Gain Plots - all elements fed - vertical view

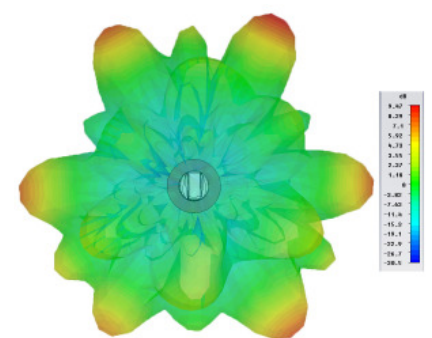
3D Gain Plot all elements fed (4.9 GHz)



3D Gain Plot all elements fed (5.4 GHz)

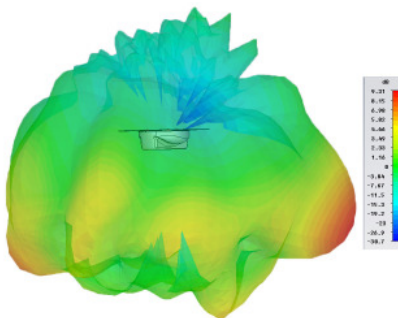


3D Gain Plot all elements fed (5.8 GHz)

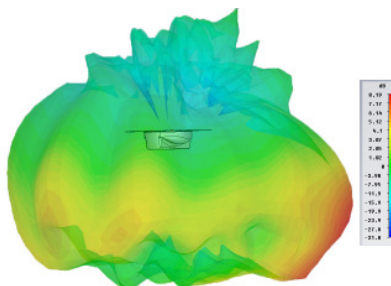


3D Gain Plots - single element fed - side view

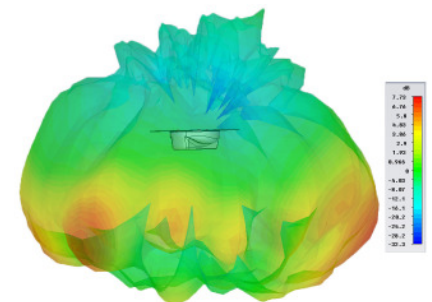
3D Gain Plot single element fed (4.9 GHz)



3D Gain Plot single element fed (5.4 GHz)

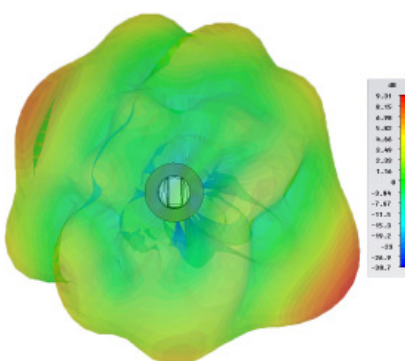


3D Gain Plot single element fed (5.8 GHz)

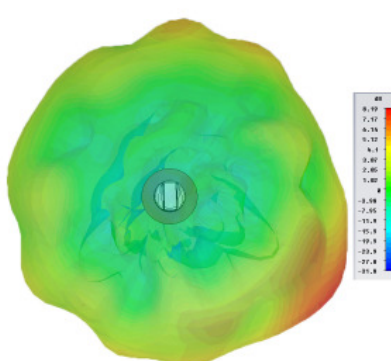


3D Gain Plots - single element fed- vertical view

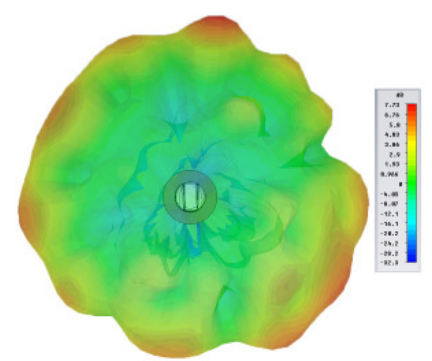
3D Gain Plot single element fed (4.9 GHz)



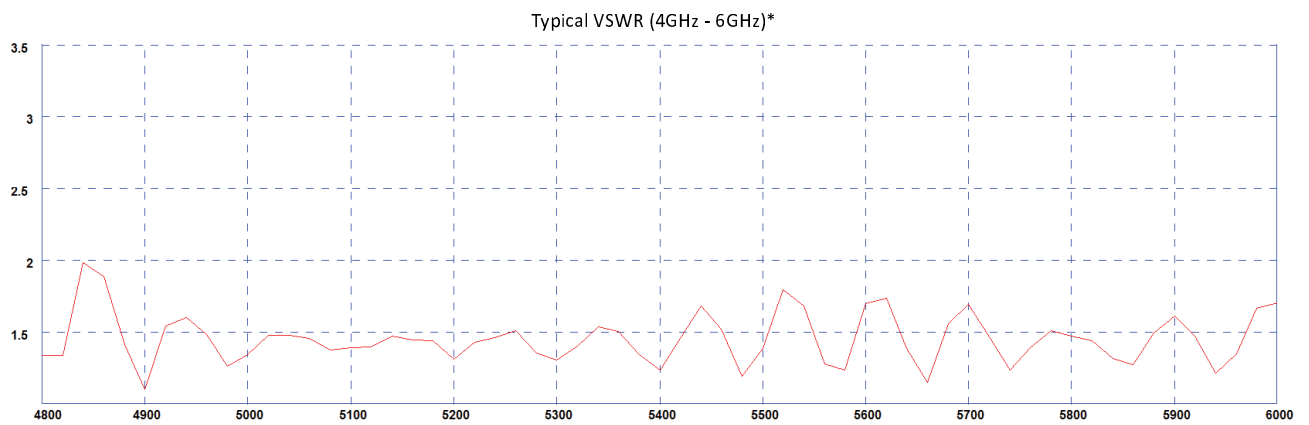
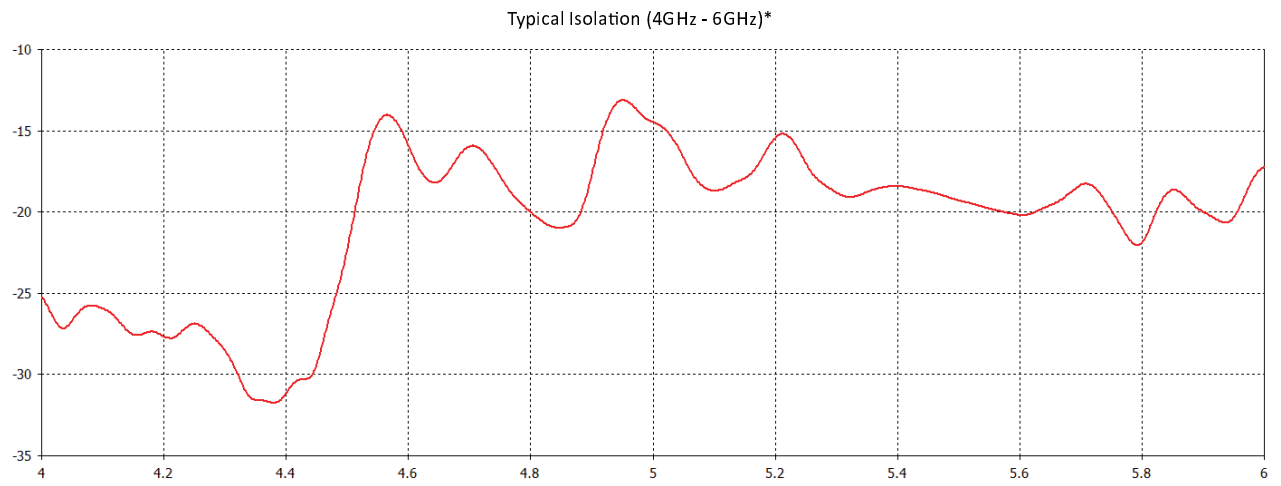
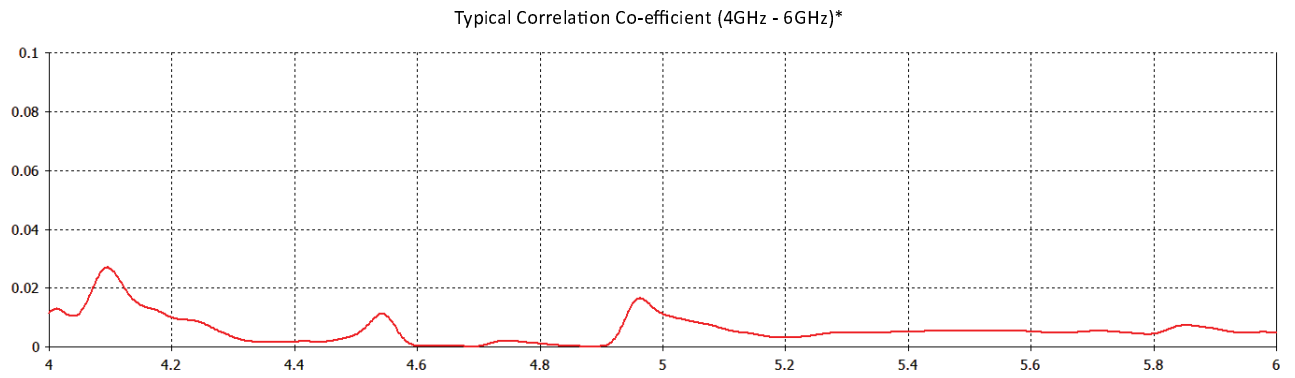
3D Gain Plot single element fed (5.4 GHz)



3D Gain Plot single element fed (5.8 GHz)



*All patterns and plots simulated using CST Microwave Studio and exclude cable. Simulated patterns include 300mm (12") diameter ground plane. All elements are symmetrically spaced in housing and so patterns for a single element are shown as representative of all three.



*Isolation and correlation plots are simulated using CST Microwave Studio and exclude cable losses. VSWR measured with 1.2m (4ft) of LMR-195-FR-W cable.

Part No.			
		CMM3-49-1-2-RANP	CMM3-49-1-8-RANP
Electrical Data			
Frequency Range (MHz)		4.9-6GHz	4.9-6GHz
Radiation pattern		Omni-directional	Omni-directional
No. of elements		3	3
Typical VSWR		< 2:1	< 2:1
Peak Gain*		9dBi	9dBi
Min Isolation (inc cable loss) (dB)		>15dB	>17dB
Max correlation co-efficient		<0.02	<0.02
Max input power (W)		20 Watts	20 Watts
Polarisation		Vertical	Vertical
Impedance		50Ω	50Ω
Mechanical Data			
Dimensions (mm)	Height	62 (2.4")	62 (2.4")
	Diameter	170 (6.7")	170 (6.7")
Operating temp (°C)		-30° / +70°C (-22° /158°F)	-30° / +70°C (-22° /158°F)
Material		Geloy PC/ASA (meets UL746C f1)	Geloy PC/ASA (meets UL746C f1)
Flame retardance		UL94-V0 (chlorine and bromine free)	UL94-V0 (chlorine and bromine free)
Colour		White	White
Ingress Protection		IP67	IP67
Mounting Data			
Fixing		Panel mount	Panel mount
Mounting hole diameter (mm)		18 (3/4")	18 (3/4")
Max panel thickness (mm)		10 (0.4")	10 (0.4")
Cable Data			
Type		Times Microwave LMR-195-FR-W	Times Microwave LMR-195-FR-W
Diameter (mm)		5 (0.2")	5 (0.2")
Length (m)		1.2 (4')	1.8 (6')
Attenuation (dB)	4.9-6GHz	1.3	1.9
Termination		3 x R/A N Plug	3 x R/A N Plug

*Simulated on a 300mm (1ft) diameter ground plane all three elements fed together and excluding cable loss.



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