RADIO INNOVATION

Super Antenna System Specification

RF, electrical and mechanical specification per panel and multifloors, for each of the three types of antenna systems (ULB, LB, MB and HB)

Lobes, Gain and KPI		**Dual Beam**		**Dual Beam**	**Dual Beam**
Product number		RIULBA960A	RILBB0960B	RIHBP2170A	RIHBP2690A
		RIULBB960A	RILBB0960B		
Frequency band model	MHz	LB 694-960	LB 790-960	Mid Band 1710-2170	High Band 2300-2690
Vertical lobe height, H=1 floor	θv°	7,1°		3,1°	2,5°
Vertical lobe height, H=2 floor		3,6°		1,6°	1,3°
Vertical lobe height, H=4 floor		1,8°		0,8°	0,7°
Horizontal lobe connected	**θh°**	**2 X 47° opt.1 x 47°**		**2 X 42° opt.1 X 42°**	**2 X 38° opt.1 X 38°**
Panels sidewise for hor. lobes	N	1		1	1
Nr of sectors obtained/panel	qty	2		2	2
Nr of ports (*regardless* of nr of floo	qty	4		4	4
Radio Units required 2T2R	qty	2		2	2
Gain/input port, L45/R45:					
One floor	**dBi**	**20**		**21**	**24**
Two floors	**dBi**	**23**		**24**	**27**
Four floors	**dBi**	**26**		**27**	**29**
Eight floors	**dBi**	**29**		**N/A**	**N/A**

Lobes, Gain and KPI		**Single Beam**		**Single Beam**	**Single Beam**
Product number		RIULBA960B	RILBA0960B	RIHBP2170A	RIHBP2690A
		RIULBB960B	RILBB0960B		
Frequency band model	MHz	Low Band 694-960 / 790-960		Mid Band 1710-2170	High Band 2300-2690
Vertical lobe height, H=1 floor	θv°	7,1°		3,1°	2,5°
Vertical lobe height, H=2 floor		3,6°		1,6°	1,3°
Vertical lobe height, H=4 floor		1,8°		0,8°	0,7°
Horizontal lobe connected	**θh°**	**1 X 47°**		**1 X 42°**	**1 X 38°**
Panels sidewise for hor. lobes	N	1		1	1
Nr of sectors obtained/panel	qty	2		2	2
Nr of ports (*regardless* of nr of floo	qty	4		4	4
Radio Units required 2T2R	qty	1		1	1
Gain/input port, L45/R45:					
One floor	**dBi**	**21**		**22**	**25**
Two floors	**dBi**	**24**		**25**	**28**
Four floors	**dBi**	**27**		**28**	**30**
Eight floors	**dBi**	**30**		**N/A**	**N/A**
F/M1 Gx x RRH ports/panel	x	504		2 010	2 010
F/M2 Gx x RRH ports/EPA total	x/m2	2 878		11 483	11 483

Mechanical Specification				
EPA of Single Panel	m2	1,0	1,0	1,0
EPA of Single Panel *in Cylinder*	m2	0,175	0,175	0,175
Height/Width/Depth of Singel Panel	m	2,5/0,36/0,27	2,5/0,36/0,27	2,5/0,36/0,27
Height/Width/Depth of Two Floors	m	5/0,36/0,27	5/0,36/0,27	5/0,36/0,27
Height/Width/Depth of Four Floors	m	10/0,36/0,27	10/0,36/0,27	10/0,36/0,27
Height/Width/Depth of Eight Floors	m	20/0,36/0,27	N/A	N/A
Weight of Single Panel	kg	34,5	36,5	36,5
Weight of Two floors	kg	65 + 13(VLSUs + HLSUs) + 10(brackets) +cables = 95	292 + 13(VLSUs+HLSUs) + 10(brackets) + small acc. =	68 + 13(VLSUs+HLSUs) + 10 (brackets) + small acc. = 101
Weight of Four floors	kg	130 + 22(VLSUs + HLSUs) + 19(brackets) +small acc. = 181	136 + 18(VLSUs+HLSUs) + 19(brackets) + small acc. =	136 + 18(VLSUs+HLSUs) + 19(brackets) + small acc. =
Weight of Eight floors	kg	260 + 48,5(VLSUs + HLSUs) + 35(brackets) +small acc. = 369	N/A	N/A
Mounting		To mounting platform/floor steel frame w. guided 4-corner arms/jig w. 8- M6 bolts		
Vertical alignment in tower		Within +/- 4 mm / 2,5 m < 0,1°. By water gauge 1,5 m long		

Compatibility		
	Standards	5G, 4G, 3G, 2G
	Modulation	TDD & FDD

Note 1: Amplitude and phase grading models. Plus LL-VLSUs + HLSUs + phase cables give System total gain, vertical and horizontal sidelobes performance.