

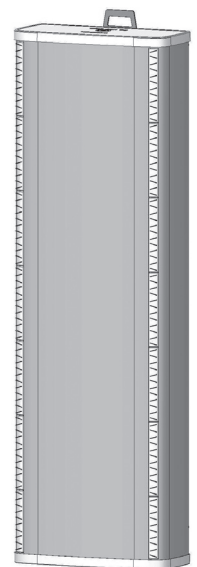
<b>8-Port Antenna</b>	<b>R1</b>	<b>R2</b>	<b>Y1</b>	<b>Y2</b>
<b>Frequency Range</b>	698-894	698-894	1695-2360	1695-2360
<b>Dual Polarization</b>	X	X	X	X
<b>HPBW</b>	65°	65°	65°	65°
<b>Gain</b>	13dBi	13dBi	17dBi	17dBi
<b>Adjust. Electr. DT</b> set by <i>FlexRET</i>	4°-18°	4°-18°	2.5°-12°	2.5°-12°



## ■ Ultra compact width

### 8-Port Antenna 2LB/2HB 4ft 65° | 2x698-894 13dBi | 2x1695-2360 17dBi

<b>Type No.</b>		<b>840370964</b>	
<b>Left side, lowband</b>		<b>R1, connector 1-2</b>	
		<b>698-894</b>	
Frequency Range	MHz	698 - 824	824 - 894
Gain at mid Tilt	dBi	12.3	12.9
Gain over all Tilts	dBi	12.3 ± 0.3	12.9 ± 0.4
<b>Horizontal Pattern:</b>			
Azimuth Beamwidth	°	55 ± 4.2	53 ± 5.3
Front-to-Back Ratio, Co-Polar, ± 30°	dB	> 21	> 24
Cross Polar Discrimination over Sector	dB	5.0	8.0
<b>Vertical Pattern:</b>			
Elevation Beamwidth	°	19.0 ± 1.8	17.7 ± 1.4
Electrical Downtilt continuously adjustable	°	4.0 - 18.0	
Tilt Accuracy	°	< 1.8	< 1.4
First Upper Side Lobe Suppression	dB	> 16	> 16
Upper Side Lobe Suppression, 20° Sector above Main Beam	dB	> 21	> 19
Cross Polar Isolation	dB	> 25 typically	
Port to Port Isolation	dB	> 25 (R1 // R2, Y1, Y2) typically	
Max. Effective Power per Port	W	300 (at 50 °C ambient temperature)	
Max. Effective Power Ports R1	W	600 (at 50 °C ambient temperature)	



Values based on NGMN-P-BASTA (version 10.0) requirements.

Right side, lowband		R2, connector 3-4	
		698-894	
Frequency Range	MHz	698 – 824	824 – 894
Gain at mid Tilt	dBi	12.2	13.1
Gain over all Tilts	dBi	12.1 ± 0.3	13.0 ± 0.3
<b>Horizontal Pattern:</b>			
Azimuth Beamwidth	°	56 ± 4.7	51 ± 4.0
Front-to-Back Ratio, Co-Polar, ± 30°	dB	> 20	> 22
Cross Polar Discrimination over Sector	dB	4.5	6.0
<b>Vertical Pattern:</b>			
Elevation Beamwidth	°	19.0 ± 1.9	17.5 ± 1.1
Electrical Downtilt continuously adjustable	°	4.0 – 18.0	
Tilt Accuracy	°	< 1.5	< 1.1
First Upper Side Lobe Suppression	dB	> 16	> 18
Upper Side Lobe Suppression, 20° Sector above Main Beam	dB	> 21	> 23
Cross Polar Isolation	dB	> 25 typically	
Port to Port Isolation	dB	> 25 (R2 // R1, Y1, Y2) typically	
Max. Effective Power per Port	W	300 (at 50 °C ambient temperature)	
Max. Effective Power Ports R2	W	600 (at 50 °C ambient temperature)	

Values based on NGMN-P-BASTA (version 10.0) requirements.

Left side, highband		Y1, connector 5-6			
		1695-2360			
Frequency Range	MHz	1695 – 1880	1850 – 1990	1920 – 2170	2305 – 2360
Gain at mid Tilt	dBi	16.4	17.0	17.2	16.8
Gain over all Tilts	dBi	16.4 ± 0.6	16.9 ± 0.7	17.1 ± 0.8	16.8 ± 0.7
<b>Horizontal Pattern:</b>					
Azimuth Beamwidth	°	64 ± 3.1	63 ± 6.2	61 ± 5.3	61 ± 6.0
Front-to-Back Ratio, Co-Polar, ± 30°	dB	> 29	> 29	> 29	> 31
Cross Polar Discrimination over Sector	dB	11.5	9.5	9.0	10.0
<b>Vertical Pattern:</b>					
Elevation Beamwidth	°	8.7 ± 0.5	8.0 ± 0.4	7.6 ± 0.5	6.8 ± 0.4
Electrical Downtilt continuously adjustable	°	2.5 – 12.0			
Tilt Accuracy	°	< 0.3	< 0.4	< 0.4	< 0.4
First Upper Side Lobe Suppression	dB	> 20	> 16	> 16	> 17
Upper Side Lobe Suppression, 20° Sector above Main Beam	dB	> 15	> 15	> 16	> 16
Cross Polar Isolation	dB	> 25			
Port to Port Isolation	dB	> 25 dB (Y1 // R1, R2, Y2)			
Max. Effective Power per Port	W	200 (at 50 °C ambient temperature)			
Max. Effective Power Ports Y1	W	400 (at 50 °C ambient temperature)			

Values based on NGMN-P-BASTA (version 10.0) requirements.

Right side, highband		Y2, connector 7-8			
		1695-2360			
Frequency Range	MHz	1695 – 1880	1850 – 1990	1920 – 2170	2305 – 2360
Gain at mid Tilt	dBi	16.3	16.9	17.1	17.1
Gain over all Tilts	dBi	16.3 ± 0.6	16.8 ± 0.6	17.0 ± 0.8	17.0 ± 0.8
<b>Horizontal Pattern:</b>					
Azimuth Beamwidth	°	66 ± 3.8	65 ± 4.2	63 ± 5.6	61 ± 3.5
Front-to-Back Ratio, Co-Polar, ± 30°	dB	> 29	> 30	> 30	> 31
Cross Polar Discrimination over Sector	dB	13.0	13.5	12.5	11.0
<b>Vertical Pattern:</b>					
Elevation Beamwidth	°	8.7 ± 0.6	7.9 ± 0.4	7.5 ± 0.5	6.8 ± 0.4
Electrical Downtilt continuously adjustable	°	2.5 – 12.0			
Tilt Accuracy	°	< 0.5	< 0.4	< 0.4	< 0.3
First Upper Side Lobe Suppression	dB	> 18	> 15	> 15	> 15
Upper Side Lobe Suppression, 20° Sector above Main Beam	dB	> 17	> 15	> 15	> 15
Cross Polar Isolation	dB	> 25			
Port to Port Isolation	dB	> 25 dB (Y2 // R1, R2, Y1)			
Max. Effective Power per Port	W	200 (at 50 °C ambient temperature)			
Max. Effective Power Ports Y2	W	400 (at 50 °C ambient temperature)			

Values based on NGMN-P-BASTA (version 10.0) requirements.

Electrical specifications, all ports		
Impedance	Ω	50
VSWR		< 1.5
Return Loss	dB	> 14
Interband Isolation	dB	> 25
Passive Intermodulation	dBc	< -153 (2 x 43 dBm carrier)
Polarization	°	-45, +45
Max. Effective Power for the Antenna	W	900 (at 50 °C ambient temperature)

Values based on NGMN-P-BASTA (version 10.0) requirements.

Mechanical specifications		
Input	8 x 4.3-10 female	
Connector Position	bottom	
Adjustment Mechanism	FlexRET, continuously adjustable	
Wind load (at Rated Wind Speed: 150 km/h)	N   lbf	Frontal: 275   62 Maximal: 485   109
Max. Wind Velocity	km/h mph	241 150
Height / Width / Depth	mm inches	1214 / 378 / 164 47.7 / 14.9 / 6.5
Category of Mounting Hardware	XM (X-Medium)	
Weight	kg lb	24 / 29.0 (clamps incl.) 52.9 / 63.9 (clamps incl.)
Packing Size	mm inches	1360 / 440 / 293 53.6 / 17.3 / 11.5
<b>Scope of Supply</b>	Panel, FlexRET and clamps for 55–115 mm   2.2–4.5 inches diameter	

## Accessories (order separately if required)

Type No.	Description	Remarks mm   inches	Weight approx. kg   lb	Units per antenna
85010097	2 clamps	Mast diameter: 110–220   4.3–8.7	9.4   20.7	1
85010110	1 downtilt kit	Downtilt angle: 0°–10°	8.5   18.7	1
86010154	Site Sharing Adapter	3-way (see figure below)	0.7   1.5	
86010155	Site Sharing Adapter	6-way (see figure below)	1.4   3.1	
86010162	Gender Adapter	Solely to be used in combination with the FlexRET module 86010153v01	0.045   0.099	1
86010163	Port Extender		0.16   0.35	1

## Accessories (included in the scope of supply)

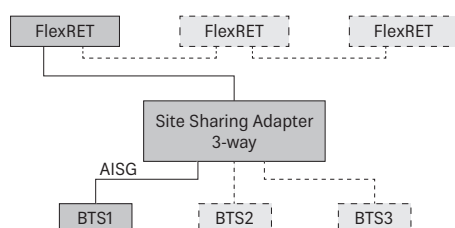
85010111	2 clamps	Mast diameter: 55–115   2.2–4.5	4.5   9.9	1
86010153v01	FlexRET			1

For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit. Wall mounting: No additional mounting kit needed.

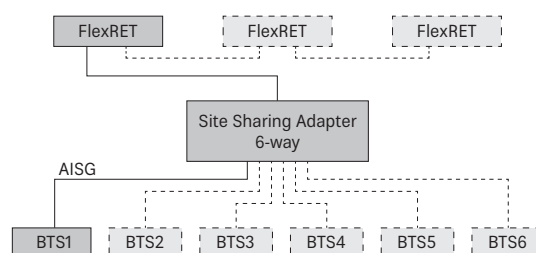
**Material:** **Reflector screen:** Aluminum.  
**Fiberglass housing:** It covers totally the internal antenna components. The special design reduces the sealing areas to a minimum and guarantees the best weather protection. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The color of the radome is light grey.  
**All nuts and bolts:** Stainless steel or hot-dip galvanized steel.

**Grounding:** The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.

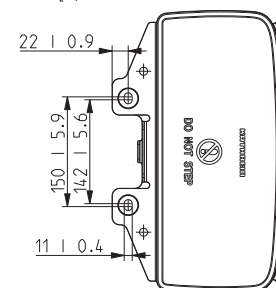
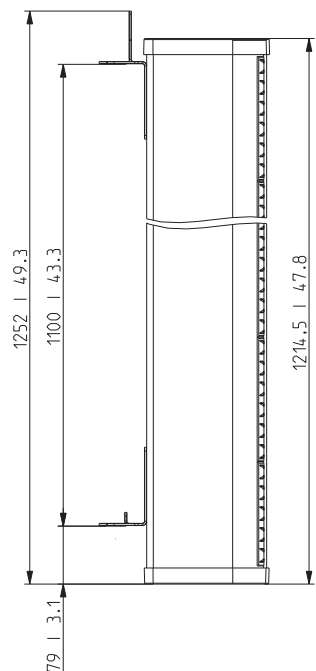
### Configuration example with Site Sharing Adapter 86010154



### Configuration example with Site Sharing Adapter 86010155

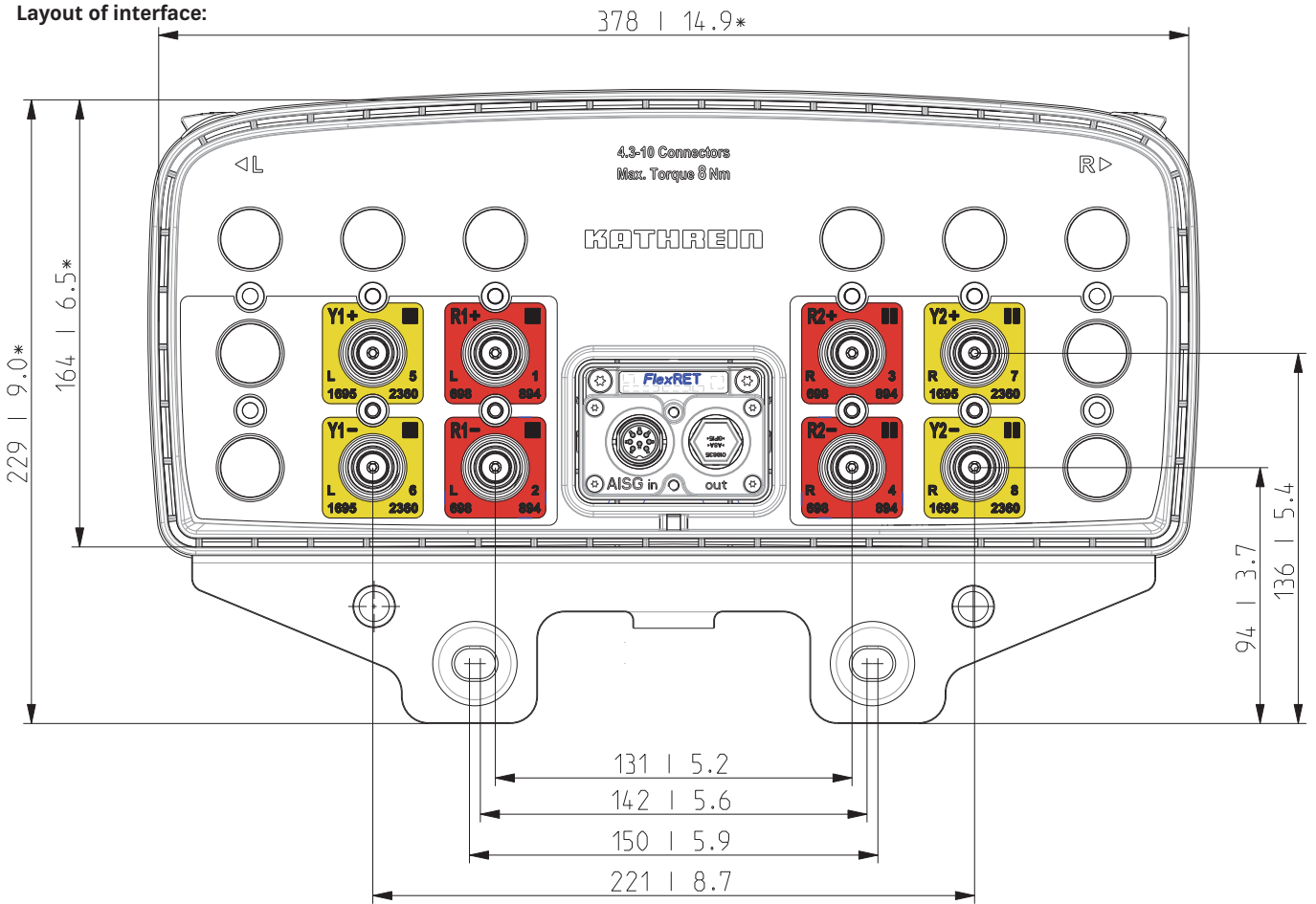


For more information please refer to the respective data sheets.



All dimensions in mm | inches

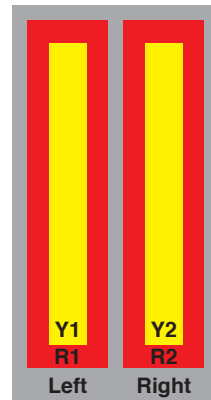
Layout of interface:



Bottom view  
 \* Dimensions refer to radom  
 All dimensions in mm | inches

### Correlation Table

Frequency range	Array	Connector / Ports
698-894 MHz	R1	1-2
698-894 MHz	R2	3-4
1695-2360 MHz	Y1	5-6
1695-2360 MHz	Y2	7-8



936.A3710f | ngmn 04.32.01.00 | Subject to alteration.