



Ericsson Antenna Technology Germany GmbH • Klepperstraße 26 • 83026 Rosenheim • Germany

Kathrein Mobile Communication — now part of Ericsson

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Company Responsible:
Markus Feld

VAT Reg. No.: DE 324 954 029
Tax ID No.: 103/5725/3930

BNP Paribas
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BIC: BNPANL2AXXX

Zum 1. Oktober 2019 ist die Kathrein Mobile Communication die Ericsson Antenna Technology Germany GmbH (im Folgenden auch „EAG“), eine mit Gesellschaftsvertrag vom 16. Januar 2019 neu gegründete Gesellschaft mit beschränkter Haftung (GmbH) nach deutschem Recht mit Sitz in Rosenheim (Geschäftsanschrift: Prinzenallee 21, 40549 Düsseldorf). EAG ist im Handelsregister B des Amtsgerichts Traunstein unter der Nr. HRB 27988 eingetragen und hat ein Stammkapital von derzeit EUR 2.000.000,00. EAG wird vertreten durch den Geschäftsführer Markus Feld. Alleinige Gesellschafterin von EAG ist die Telefonaktiebolaget LM Ericsson (publ), eine börsennotierte Aktiengesellschaft nach schwedischem Recht.

Die neuen Firmendaten lauten seither wie folgt:
Ericsson Antenna Technology Germany GmbH
Klepperstraße 26
83026 Rosenheim, Germany
UST-Ident-Nr: DE 324 954 029
Steuer-Nr.: 103/5725/3930

As of 1 October 2019, Kathrein Mobile Communication is Ericsson Antenna Technology Germany GmbH (hereinafter also referred to as "EAG"), a limited liability company under German law, newly established by articles of association dated 16 January 2019, with its head office in Rosenheim (business address: Prinzenallee 21, 40549 Düsseldorf, Germany). EAG is registered in the commercial register, section B, of Amtsgericht Traunstein (district court Traunstein) under the number HRB 27988 and has a share capital of currently EUR 2,000,000. EAG is represented by managing director Markus Feld. The sole shareholder of EAG is Telefonaktiebolaget LM Ericsson (publ), a listed stock corporation under Swedish law.

The new company data are as follows:
Ericsson Antenna Technology Germany GmbH
Klepperstraße 26
83026 Rosenheim, Germany
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Read more at: ericsson.com/en/networks/kathrein

4-Port Antenna Frequency Range Dual Polarization HPBW

Adjust. Electr. DT

Enhanced Sidelobe Suppression

Downtilt set by hand or by optional RCU (Remote Control Unit)

Y1	Y2
1695–2690	1695–2690
X	X
65°	65°
2°–14°	2°–14°
18dB	18dB

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4-Port Antenna 1695–2690/1695–2690 65°/65° 18/18dBi 2°–14°/2°–14°T ESLS

Type No.		80020622			
Left side, highband		Y1, connector 1–2			
		1695–2690			
Frequency Range	MHz	1695 – 1880	1920 – 2180	2300 – 2400	2490 – 2690
Gain at mid Tilt	dBi	17.4	18.0	18.6	18.8
Gain over all Tilts	dBi	17.3 ± 0.4	17.9 ± 0.4	18.3 ± 0.4	18.6 ± 0.4
Horizontal Pattern:					
Azimuth Beamwidth	°	66 ± 3.2	63 ± 2.6	60 ± 3.5	56 ± 2.6
Front-to-Back Ratio, Total Power, ± 30°	dB	> 24	> 24	> 26	> 23
Cross Polar Discrimination at Boresight	dB	> 22	> 22	> 22	> 18
Cross Polar Discrimination over Sector	dB	> 12.5	> 10.0	> 9.5	> 13.0
Vertical Pattern:					
Elevation Beamwidth	°	6.8 ± 0.5	6.1 ± 0.5	5.2 ± 0.3	4.9 ± 0.3
Electrical Downtilt continuously adjustable	°	2.0 – 14.0			
Tilt Accuracy	°	< 0.3	< 0.3	< 0.2	< 0.2
First Upper Side Lobe Suppression	dB	> 20	> 20	> 20	> 20
Upper Side Lobe Suppression, 20° Sector above Main Beam	dB	> 17	> 17	> 16	> 16
Cross Polar Isolation	dB	> 30			
Port to Port Isolation	dB	> 30 (Y1 // Y2)			
Max. Effective Power per Port	W	250 (at 50 °C ambient temperature)			
Max. Effective Power Port 1–2	W	500 (at 50 °C ambient temperature)			

Values based on NGMN-P-BASTA (version 9.6) requirements.



Right side, highband		Y2, connector 3-4			
		1695 – 2690			
Frequency Range	MHz	1695 – 1880	1920 – 2180	2300 – 2400	2490 – 2690
Gain at mid Tilt	dBi	17.2	17.9	18.6	18.9
Gain over all Tilts	dBi	17.1 ± 0.4	17.8 ± 0.5	18.4 ± 0.4	18.7 ± 0.5
Horizontal Pattern:					
Azimuth Beamwidth	°	68 ± 3.8	64 ± 4.1	59 ± 2.6	55 ± 2.0
Front-to-Back Ratio, Total Power, ± 30°	dB	> 25	> 26	> 25	> 23
Cross Polar Discrimination at Boresight	dB	> 22	> 22	> 22	> 19
Cross Polar Discrimination over Sector	dB	> 13.5	> 11.0	> 9.5	> 12.0
Vertical Pattern:					
Elevation Beamwidth	°	6.8 ± 0.4	6.0 ± 0.5	5.2 ± 0.3	4.8 ± 0.2
Electrical Downtilt continuously adjustable	°	2.0 – 14.0			
Tilt Accuracy	°	< 0.3	< 0.3	< 0.2	< 0.2
First Upper Side Lobe Suppression	dB	> 19	> 19	> 20	> 20
Upper Side Lobe Suppression, 20° Sector above Main Beam	dB	> 18	> 17	> 17	> 15
Cross Polar Isolation	dB	> 30			
Port to Port Isolation	dB	> 30 (Y2 // Y1)			
Max. Effective Power per Port	W	250 (at 50 °C ambient temperature)			
Max. Effective Power Port 3-4	W	500 (at 50 °C ambient temperature)			

Values based on NGMN-P-BASTA (version 9.6) requirements.

Electrical specifications, all systems		
Impedance	Ω	50
VSWR		< 1.5
Return Loss	dB	> 14
Interband Isolation	dB	> 30
Passive Intermodulation	dBc	< -153 (2 x 43 dBm carrier)
Polarization	°	-45, +45
Max. Effective Power for the Antenna	W	700 (at 50 °C ambient temperature)

Values based on NGMN-P-BASTA (version 9.6) requirements.

Mechanical specifications		
Input	4 x 4.3-10 female	
Connector Position	bottom	
Adjustment Mechanism	2x, Position bottom continuously adjustable	
Wind load (at Rated Wind Speed: 150 km/h)	N lbf	Frontal: 565 127 Maximal: 620 139
Max. Wind Velocity	km/h mph	200 124
Height / Width / Depth	mm inches	1471 / 275 / 86 57.9 / 10.8 / 3.4
Category of Mounting Hardware	M (Medium)	
Weight	kg lb	13.0 / 15.2 (clamps incl.) 28.7 / 33.5 (clamps incl.)
Packing Size	mm inches	1791 / 298 / 119 70.5 / 11.7 / 4.7
Scope of Supply	Panel and 2 units of clamps for 42–115 mm 1.7–4.5 inches diameter	

Accessories (order separately if required)

Type No.	Description	Remarks mm inches	Weight approx. kg lb	Units per antenna
731651	1 clamp	Mast diameter: 28 – 60 1.1 – 2.4	0.8 1.8	2
85010002	1 clamp	Mast diameter: 110 – 220 4.3 – 8.7	2.7 6.0	2
85010003	1 clamp	Mast diameter: 210 – 380 8.3 – 15.0	4.8 10.6	2
737978	1 downtilt kit	Downtilt angle: 0° – 15°	2.3 5.1	1

Accessories (included in the scope of supply)

738546	1 clamp	Mast diameter: 42 – 115 1.7 – 4.5	1.1 2.4	2
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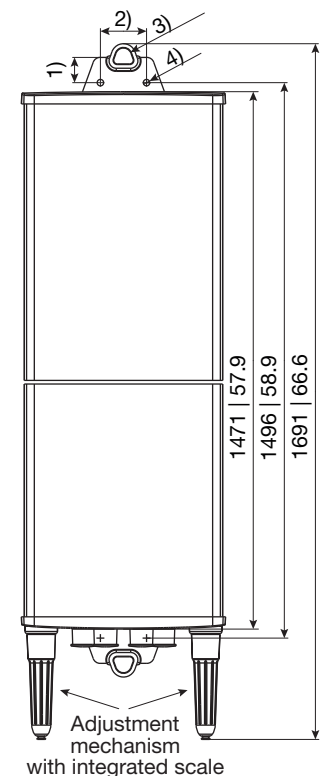
For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.

Material:

Reflector screen: Aluminum. **Radiator:** Tin-plated zinc.
Flat fiberglass radome: The max. radome depth is only 86 mm | 3.4 inches. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The color of the radome is grey.
All screws and nuts: Stainless steel.

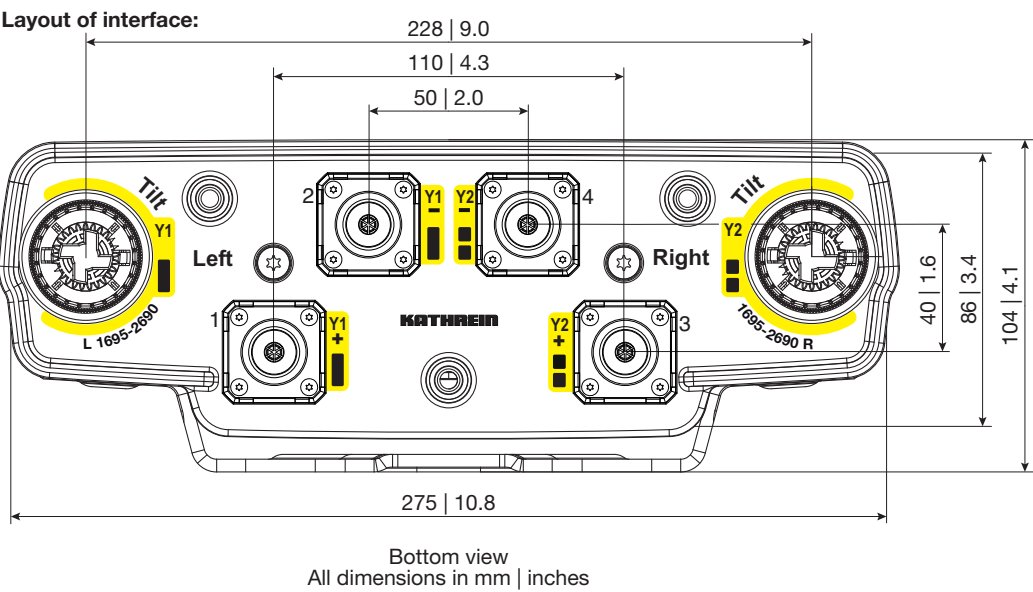
Grounding:

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



1) 35 | 1.4 3) $\varnothing$ 22 | 0.9
2) 64 | 2.5 4) $\varnothing$ 9 | 0.4

All dimensions in mm | inches



Correlation Table

Frequency range	Array	Connector
1695–2690 MHz	Y1	1–2
1695–2690 MHz	Y2	3–4



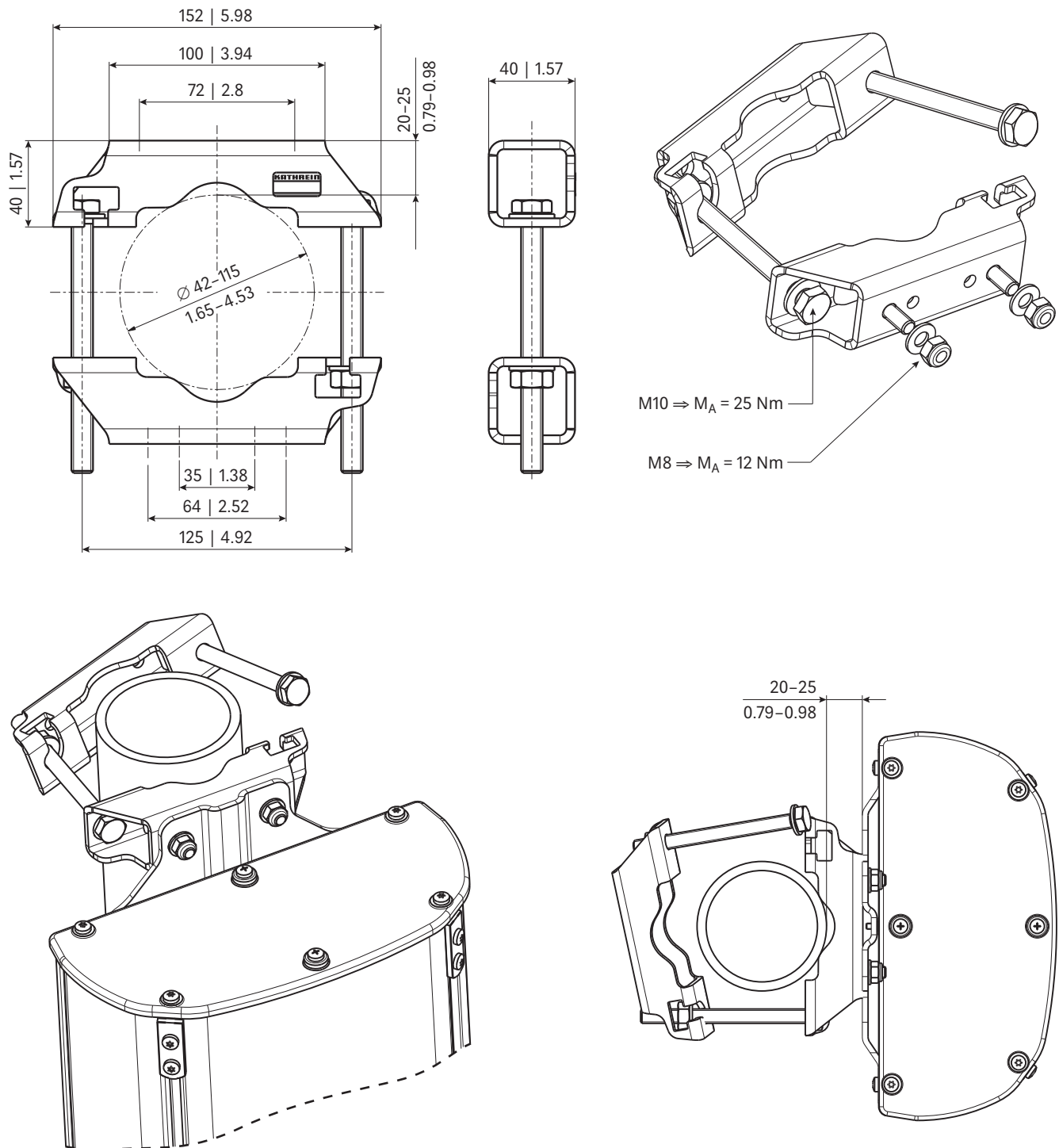
936.5356/a ngmn Subject to alteration.

Mounting Hardware

Clamp Included in the Scope of Supply

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Suitable for mast diameter	mm inches	42 – 115 1.65 – 4.53
Antenna – mast distance	mm inches	20 – 25 0.79 – 0.98
Material of clamp and screws	Hot-dip galvanized steel / stainless steel	
Weight	kg lb	1.1 2.43



936.3920e | Subject to alteration.

**Please note: Kathrein does not recommend to use counter nuts.
The additional nuts supplied are only meant as spares.**

All dimensions in mm | inches

Any previous data sheet issues have now become invalid.

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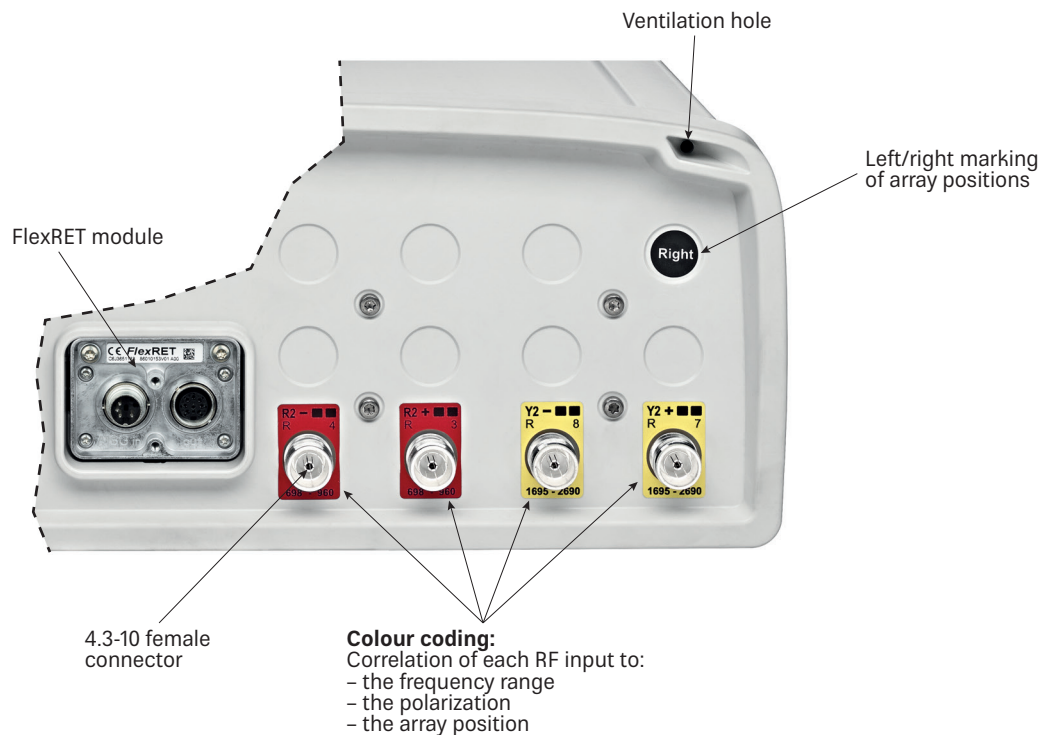
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General Instructions for Feeder Line Installation for Antennas with 4.3-10 Connectors

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Please note: In order not to damage the interfaces, please make sure that only the right tools are used. Tighten the feederline connector interfaces solely by using a common torque-wrench with a suitable wrench width.

Description of bottom end cap (exemplary picture):



Installation of feeder line cables:

Tighten the 4.3-10 cable connectors within a torque range of max. 15 Nm depending on connector manufacturers' specifications. The recommended tightening torque of 4.3-10 connectors is 5–8 Nm. For the FlexRET installation, please follow the FlexRET installation instruction on the data sheet.

Installation of Smart Bias Tees:

If directly mounted on the antenna, the weight of one Smart Bias Tee must not exceed 440 g | 0.96 lb per antenna connector. It is recommended to only use Kathrein Smart Bias Tees with 4.3-10 connector (type no. 78211590, ..., -597).

Hold the Smart Bias Tee housing securely while mounting and tightening the cables. No lateral pressure shall be applied on the Smart Bias Tee when mounting it directly on an antenna neither during the mounting process nor in operational mode.