

Quad-Band Mono-Sector Antenna				
Mono-sector Antenna	698-862 (R1)	1710-2690 (Y1)	1710-2690 (Y2)	1710-2690 (Y3)
Half Power Beam Width	65°	65°	65°	65°

Kathrein 8-Port 698-960/1710-2690/1710-2690/1710-2690 65°/65°/65°/65° 17/17.5/18/17.5dBi 1.5°-10°/2.5°-12°/2.5°-12°/2.5°-12°T

R1, conn. 1-2				
Low Band				
698-960				
Frequency Range (Mhz)	698-806	790-862	824-894	880-960
Gain at mid tilt (dBi)	16.3	16.8	17	17.3
Gain over all tilts (dBi)	16.3 ± 0.4	16.8 ± 0.3	17.0 ± 0.4	17.3 ± 0.2
Horizontal Pattern				
Azimuth Beamwidth (°)	70 ± 1.8	68 ± 1.5	68 ± 1.8	66 ± 1.7
Front to Back Ratio, Total Power ± 30° (dB)	> 23	> 24	> 25	> 26
Cross Polar Discrimination over sector (dB)	> 7.5	> 8.0	> 8.0	> 7.5
Azimuth Beam Port-to-Port Tracking (dB)	< 1.5	< 2.0	< 2.0	< 2.0
Vertical Pattern				
Elevation Beamwidth (°)	8.7 ± 0.6	7.8 ± 0.4	7.6 ± 0.5	7.1 ± 0.4
Electrical Downtilt continuously adjustable	1.5°-10°, continuously adjustable			
Tilt Accuracy	< 0.3	< 0.3	< 0.3	< 0.2
First Upper Side Lobe Suppression (dB)	> 16	> 16	> 16	> 15
Cross Polar Isolation (dB)	>30			
Port to Port Isolation	>28dB (R1//Y1,Y2,Y3)			
Max Effective power per Port	400W (at 50°C ambient temperature)			
Max Effective power per Port 1-2	800W (at 50°C ambient temperature)			



Y1, conn. 3-4					
High Band					
1710-2690					
Frequency Range (Mhz)	1710-1880	1850-1990	1920-2170	2300-2400	2500-2690
Gain at mid tilt (dBi)	17.2	17.5	17.5	17.3	17.8
Gain over all tilts (dBi)	17.1 ± 0.4	17.4 ± 0.3	17.5 ± 0.4	17.3 ± 0.4	17.6 ± 0.4
Horizontal Pattern					
Azimuth Beamwidth (°)	64 ± 3.8	62 ± 2.8	62 ± 3.2	61 ± 6.6	63 ± 5.4
Front to Back Ratio (dB)	> 23	> 24	> 24	> 21	> 23
Cross Polar Discrimination over sector (dB)	> 8.0	> 10	> 11.5	> 9.5	> 8.5
Azimuth Beam Port-to-Port Tracking (dB)	< 1.5	< 2.0	< 2.0	< 2.5	< 2.0
Vertical Pattern					
Elevation Beamwidth (°)	7.3 ± 0.4	6.9 ± 0.5	6.4 ± 0.6	5.6 ± 0.4	5.2 ± 0.3
Electrical Downtilt	2.5°-12°, continuously adjustable for each system				
Tilt Accuracy	< 0.3	< 0.3	< 0.4	< 0.4	< 0.3
First Upper Side Lobe Suppression (dB)	>15	>15	>15	>14	>14
Cross Polar Isolation (dB)	> 28dB				
Port to Port Isolation	>30dB (Y1//Y2,Y3)				
Max Effective Power per Port	200W (at 50°C ambient temperature)				
Max Effective Power per Port 3-4	400W (at 50°C ambient temperature)				

Y2, conn. 5-6

High Band					
1710-2690					
Frequency Range (Mhz)	1710-1880	1850-1990	1920-2170	2300-2400	2500-2690
Gain at mid tilt (dBi)	17.4	17.6	17.9	18.2	18.4
Gain over all tilts (dBi)	17.4 ± 0.3	17.6 ± 0.2	17.8 ± 0.4	18.2 ± 0.4	18.2 ± 0.5
Horizontal Pattern					
Azimuth Beamwidth (°)	65 ± 2.6	66 ± 2.0	66 ± 1.5	66 ± 2.2	65 ± 4.6
Front to Back Ratio (dB)	> 22	> 22	> 23	> 22	> 25
Cross Polar Discrimination over sector (dB)	> 11	> 14	> 14.5	> 11.5	> 9.5
Azimuth Beam Port-to-Port Tracking	< 1.5	< 1.0	< 0.5	< 1	< 2.5
Vertical Pattern					
Elevation Beamwidth (°)	7.1 ± 0.4	6.7 ± 0.3	6.4 ± 0.4	5.6 ± 0.4	5.0 ± 0.3
Electrical Downtilt	2.5°-12°, continuously adjustable for each system				
Tilt Accuracy	< 0.4	< 0.3	< 0.3	< 0.4	< 0.3
First Upper Side Lobe Suppression (dB)	> 18	> 24	> 23	> 19	> 21
Cross Polar Isolation (dB)	> 28dB				
Port to Port Isolation	>30dB (Y2/Y1,Y3)				
Max Effective Power per Port	200W (at 50°C ambient temperature)				
Max Effective Power per Port 7-8	400W (at 50°C ambient temperature)				

Y3, conn. 7-8

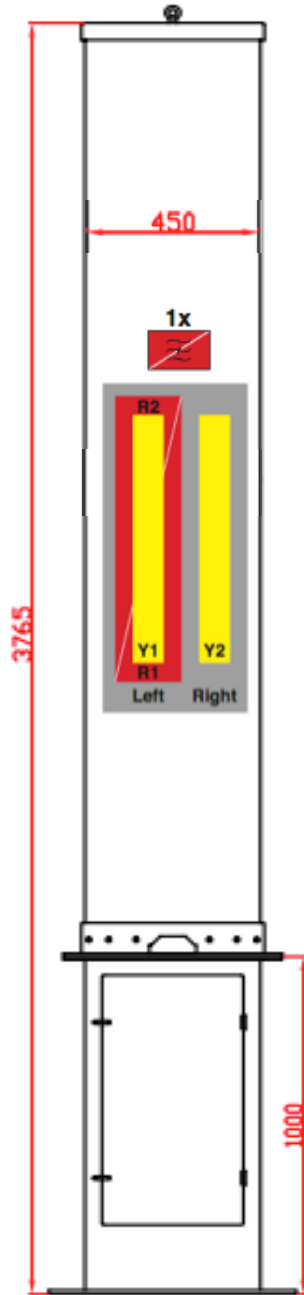
High Band					
1710-2690					
Frequency Range (Mhz)	1710-1880	1850-1990	1920-2170	2300-2400	2500-2690
Gain at mid tilt (dBi)	16.9	17.1	17.3	17.5	17.6
Gain over all tilts (dBi)	16.9 ± 0.4	17.1 ± 0.3	17.3 ± 0.4	17.4 ± 0.2	17.6 ± 0.5
Horizontal Pattern					
Azimuth Beamwidth (°)	64 ± 2.3	65 ± 1.5	65 ± 1.4	66 ± 1.7	66 ± 4.0
Front to Back Ratio (dB)	> 23	> 24	> 24	> 25	> 26
Cross Polar Discrimination over sector (dB)	> 10	> 14.5	> 14.5	> 11.5	> 9.0
Azimuth Beam Port-to-Port Tracking	< 1.0	< 1.0	< 0.5	< 0.5	< 2.5
Vertical Pattern					
Elevation Beamwidth (°)	7.2 ± 0.4	6.7 ± 0.5	6.4 ± 0.6	5.6 ± 0.4	5.0 ± 0.2
Electrical Downtilt	2.5°-12°, continuously adjustable for each system				
Tilt Accuracy	< 0.3	< 0.3	< 0.3	< 0.3	< 0.2
First Upper Side Lobe Suppression (dB)	> 18	> 24	> 23	> 20	> 19
Cross Polar Isolation (dB)	> 28dB				
Port to Port Isolation	>30dB (Y3/Y2,Y1)				
Max Effective Power per Port	200W (at 50°C ambient temperature)				
Max Effective Power per Port 7-8	400W (at 50°C ambient temperature)				

Mechanical Specifications

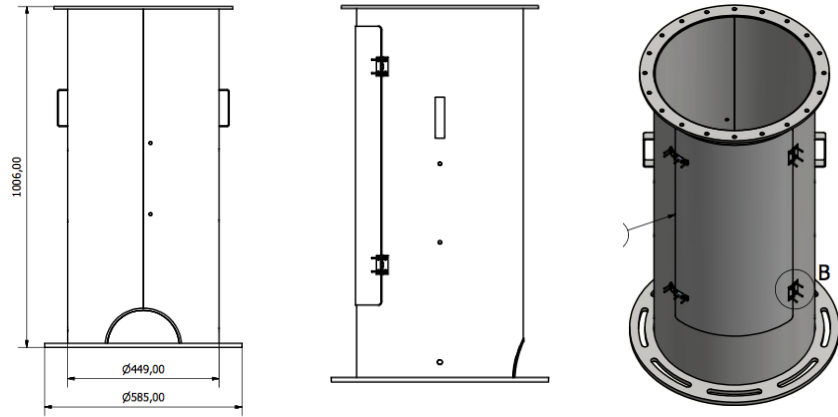
Input	8 x 4.3-10 Female	
Connector Position	Bottom	
Tilt Adjustment	FlexRET	
Windload (N)	1312	
Max. Wind Velocity	200Km/h	
System dimensions (H/W) mm	Antenna	Canister (ECOMAST10V02)
	2765x450	1000x499
Weigth (kg)	Antenna	Canister (ECOMAST10V02)
	Approx. 82	Approx. 50
Colour	RAL 7042	

Electrical Specifications

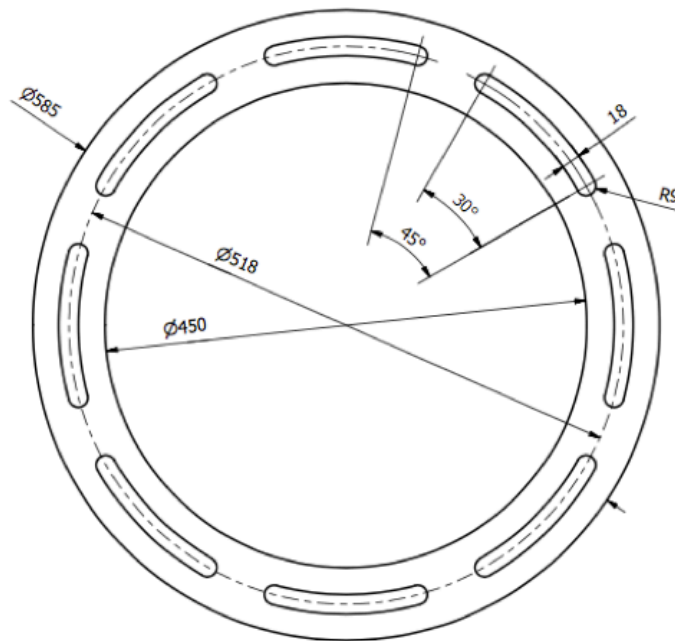
Impedance Ω	50
VSWR	< 1.5
Return Loss (dB)	> 14
Interband Isolation (dB)	> 28
Passive Intermodulation (dBc)	< - 150 (2x 43 dBm carrier)
Polarization °	± 45



ECOMAST10V02



Flange interface



SHIPPING INFORMATION

PACKING	QUANTITY	LxWxH (mm)	WEIGHT
ECOMS872	1x	2900x550x550	122 kg
ECOMAST10V02	1x	1050x580x580	55 kg

Please note: As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions. The installation team must be properly qualified and also be familiar with the relevant national safety regulations. The details given in our datasheets have to be followed carefully when installing the antennas and accessories. The limits for the coupling torque of RF-connectors, recommended by the connector manufacturers must be obeyed. Any previous datasheets issued has now become invalid.