Antenna Product Specifications

SLU0618DS6

0.6m Ultra High Performance Low Profile Antenna, single-polarized, 17.7÷19.7 GHz

CHARACTERISTIC

General Specifications

Antenna Type	Ultra High Performance Low Profile Antenna, Single-Polarized Antenna
Diameter, nominal	0.6m / 2ft
Polarization	Single
Reflector Construction	One-piece reflector
Antenna Color	White
Radome Color	White
Radome Material Description	ABS

Electrical Specifications

Frequency	17.7÷19.7 GHz
Gain, Top	39.1 dBi
Gain, Mid	38.9 dBi
Gain, Low	38.4 dBi
Front-to-Back Ratio	67 dB
Cross Polar Discrimination (XPD)	30 dB
Beamwidth	2.1 °
VSWR	1.30
Return Loss	17.69 dB
Regulatory Compliance	ETSI EN 302 217 Range 2 Class 3

Mechanical Specification

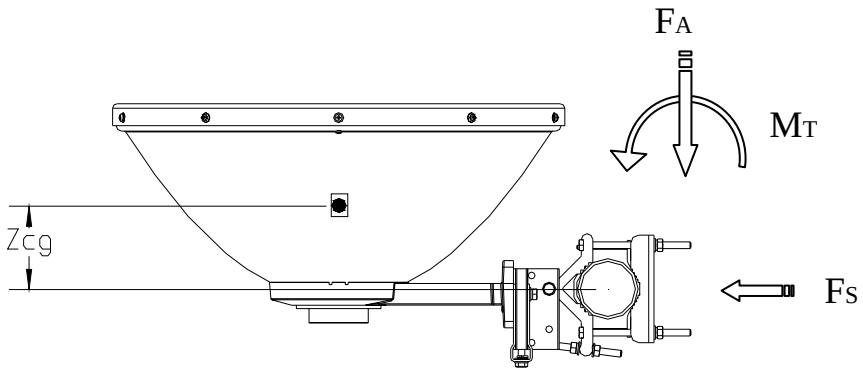
Wind Velocity Operational	162km/h
Wind Velocity Survival Rating	250km/h
Fine Azimuth Adjustment	Coarse360° Fine ±15°
Fine Elevation Adjustment	Coarse ±25° Fine ±15°
Mounting Pipe Diameter	Φ51÷Φ114 mm
Ice-load	25.4 mm
Operational Temperature	-45÷+75 ℃
Side Struts, Included	0
Net Weight	11.9kg

Wind Forces at Wind Velocity Survival Rating

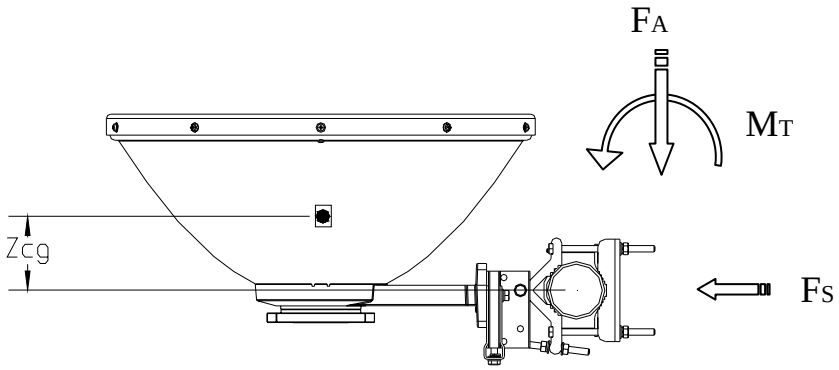
Axial Force(FA)	1055 N
Side Force(FS)	679 N
Twisting Moment(MT)	443 N • m
Zcg without Ice	67mm
Zcg with 1”(25.4mm) Ice	99mm
Weight with 1”(25.4mm) Ice	25.3 kg

Wind Forces at Wind Velocity Survival Rating Image

Separate:

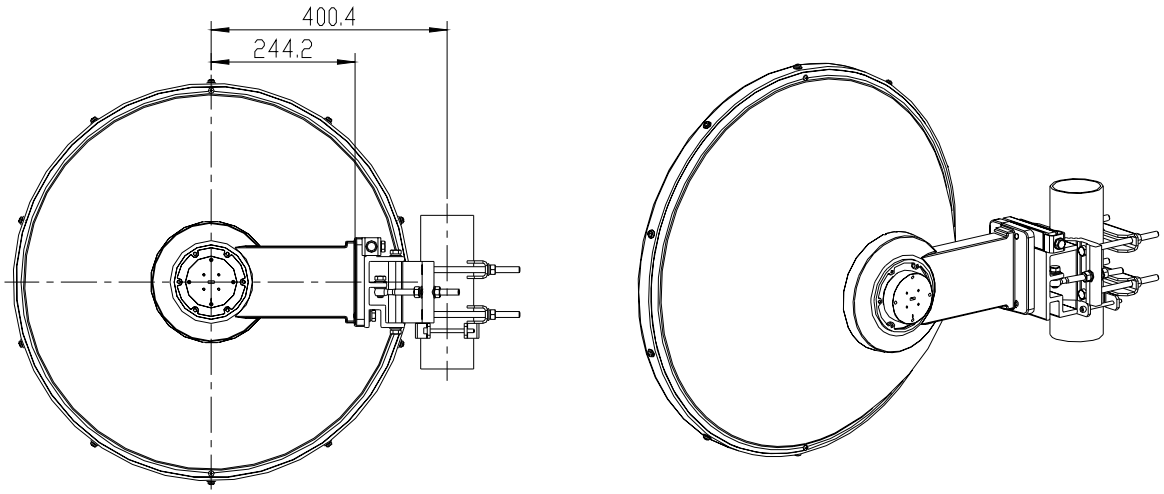


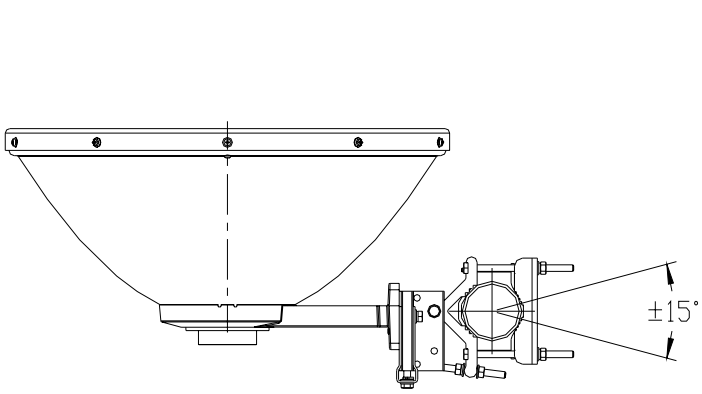
Integrated:



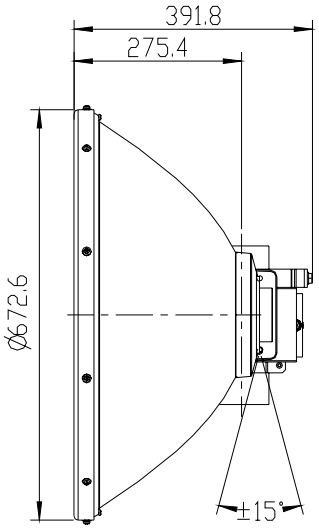
Antenna Dimensions and Mounting Information

Separate:





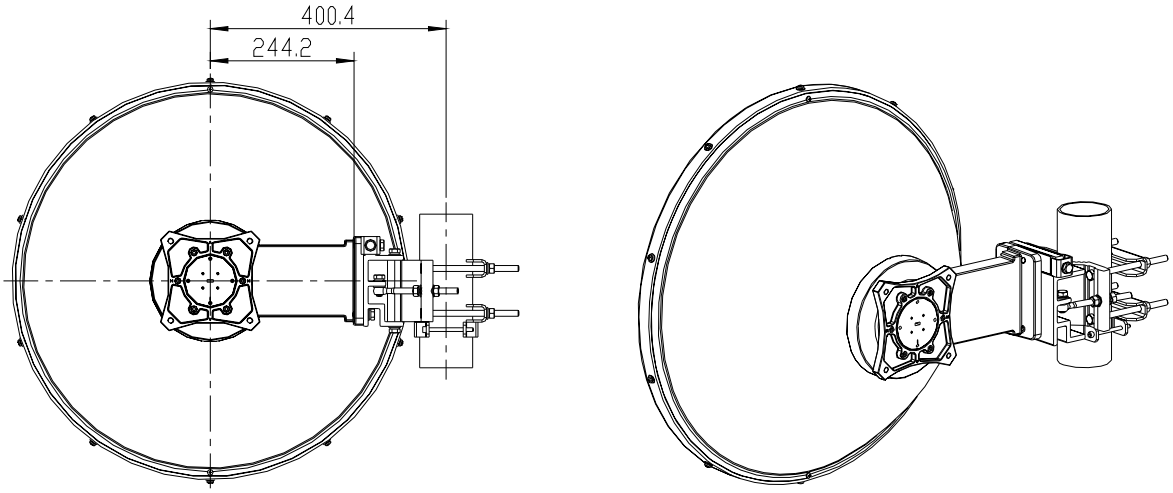
Fine Azimuth Adjustment

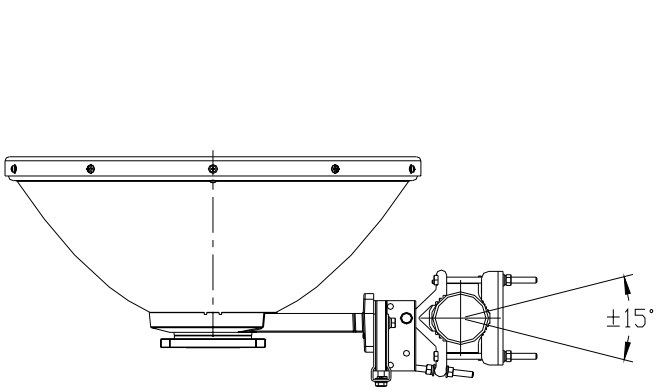


Fine Elevation Adjustment

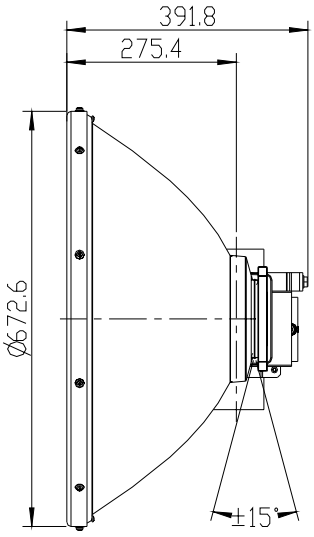
Antenna Dimensions and Mounting Information

Integrated:





Fine Azimuth Adjustment

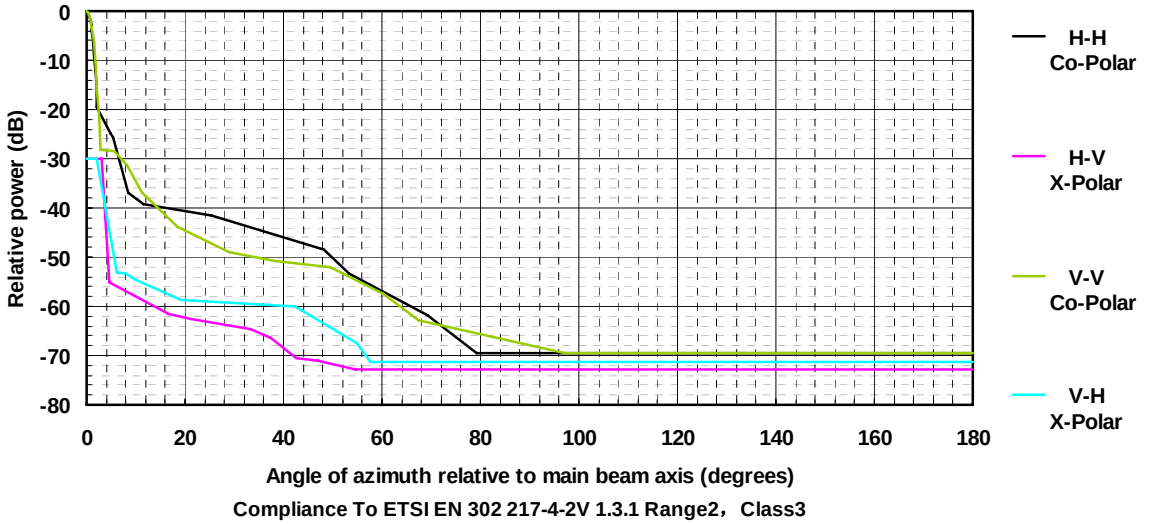


Fine Elevation Adjustment

Mechanical Torque

Diameter of screw	4 mm	10 mm
Torque Value	0.9 N • m	22 N • m

Radiation Pattern Envelope Reference (RPE)



Compliance To ETSI EN 302 217-4-2V 1.3.1 Range2，Class3

H-H		H-V		V-V		V-H	
Angle	dB	Angle	dB	Angle	dB	Angle	dB
0	0	0	-30	0	0	0	-30
0.36	-0.43395	3.06	-30	0.36	-0.36152	1.98	-30
0.54	-0.97224	4.5	-55.034	0.72	-1.4934	6.03	-53.168
0.72	-1.7412	16.56	-61.599	1.08	-3.4609	7.92	-53.416
0.9	-2.733	21.24	-62.513	1.44	-6.3644	9.9	-54.491
1.08	-3.9876	33.3	-64.684	1.8	-10.297	19.26	-58.591
1.26	-5.5082	37.35	-66.451	2.16	-15.434	42.3	-59.915
1.62	-9.5289	42.66	-70.524	2.52	-21.788	43.56	-60.724
1.8	-12.177	46.89	-71	2.88	-28.177	54.99	-67.332
1.98	-15.368	54.63	-72.755	5.58	-28.422	57.69	-71.188
2.16	-19.399	180	-72.849	8.19	-31.301	180	-71.21
4.86	-24.964			11.16	-36.88		
5.4	-25.567			18.36	-43.826		
8.46	-37.015			29.07	-48.96		
11.52	-39.277			38.16	-50.701		
25.38	-41.568			47.43	-51.745		
48.15	-48.552			49.41	-52.08		
53.28	-53.299			60.21	-57.496		
69.3	-61.793			67.41	-62.723		

79.29	**-69.428**	**97.11**	**-69.6**
180	**-69.428**	**180**	**-69.6**

RoHS Compliance

This product and its packaging are compliant to the DIRECTIVE 2002/95/EC of the EUROPEAN PARLIAMENT and of the COUNCIL of 27 January 2003 （RoHS）on the restriction of the use of hazardous substances as defined on RoHS Directive.

Footnotes

Axial Force (FA)	Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.
Cross Polarization Discrimination (XPD)	The stated unit is dB. It is refer to the difference of levels between co-polar and cross-polar within range of 3dB BW.
Front to Back Ratio	It refers to the ratio between peak level and the lowest back lobe at 180°±60°; The F/B Ratio of existing products are unable to exceed 2dB as against stated values unless other specific declarations.
Gain, Mid Band	It denotes the gain of centre frequency in operated frequency band. The average value of stated three frequencies at mid-band as well as bottom and top frequency bands is gain of antenna.
Half-Power BW	Denote the nominal total width of main beam at the -3dB points.
Operating Frequency Band	Bands correspond with ITU-R recommendations or common allocations used throughout the world. Other ranges can be accommodated on.
Packing	Standard packing is suitable for export. Antennas are shipped as standard in totally recyclable material.
Radiation Pattern Envelope Reference (RPE)	Radiation patterns determine an antenna's ability to discriminate against unwanted signals under conditions of radio congestion. Radiation patterns are dependent on antenna series, size, and

	frequency.
Return Loss	The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.
Side Force (FS)	Maximum axial forces exerted on support structures by side struts as a result of a 240 km/h wind from the most critical direction and extreme angle permitted. The forces are a component of, not in addition to, the maximum forces specified above.
Twisting Moment (MT)	Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.
VSWR	Refer to the maximum Voltage Standing Wave Ration in frequency band of operation.
Wind Velocity Operational	The antenna axis deflection is less than one third of the half power beam width at the highest frequency which occurs.
Wind Velocity Survival Rating	The antenna sub-system will survive the specified survival wind speed without any permanent deformation or change of shape.

Part Numbers List

P/N	Flanges/WG Dim	Description	Integration Kit
SLU0618DS6-U-01M	**UBR220**	**0.6M 18GHz SP EXTERNAL MOUNT**	**-**
SLU0618DS6-P-01M	**PBR220**	**0.6M 18GHz SP EXTERNAL MOUNT**	**-**
SLU0618DS6D-01M	**R220**	**0.6M 18GHz SP INT. STANDARD**	**V60117**
SLU0618DS6C-01M	**R220**	**0.6M 18GHz SP INT. FAST**	**V32340**

CE