

## Product Data Sheet

**S-LU2PX12.10P-2Q**

X Pol Panel TD Antenna 1695-2690MHz 90° 17dBi 2°-12° Replaceable RET

XX Pol Panel Antenna 2×698-960MHz 65° 16dBi 2°-12° Replaceable RET

| General Electrical Properties         |                                                                       |                               |
|---------------------------------------|-----------------------------------------------------------------------|-------------------------------|
| General Parameters                    | Frequency Range (MHz) :                                               | 1695-2690(Y1)                 |
|                                       | Polarization:                                                         | ±45°                          |
|                                       | Electrical Downtilt (°) :                                             | 2-12, continuously adjustable |
|                                       | Lightning Grounding:                                                  | DC Grounded                   |
|                                       | Connector Type:                                                       | 2xMQ4, 1xCAL Port             |
| Calibration and Electrical Parameters | Coupling Factor between calibration port and each antenna port (dB) : | -26±2                         |
|                                       | Max Amp/Phase Deviation:                                              | <1.2dB/12°                    |
|                                       | VSWR:                                                                 | <1.5                          |
|                                       | Max. Power Per Port (W):                                              | 50                            |
|                                       | Intraband Isolation (dB):                                             | >20                           |
|                                       | Interband Isolation (dB):                                             | >20                           |

| Beamforming Electrical Properties |                         |                                  |               |           |
|-----------------------------------|-------------------------|----------------------------------|---------------|-----------|
| Radiation Parameters              | Frequency Range (MHz) : |                                  | 1695-2690(Y1) |           |
|                                   |                         |                                  | 1695-2170     | 2300-2690 |
|                                   | Single Column           | Horizontal 3dB Beamwidth (°):    | 70            | 60        |
|                                   |                         | Vertical 3dB Beamwidth (°):      | 6.0±0.8       | 4.5±0.5   |
|                                   |                         | Front to Back Ratio (dB):        | 23            | 24        |
|                                   |                         | Gain (dBi):                      | 17.0±0.8      | 18.0±0.9  |
|                                   |                         | Cross Polar Ratio 0° (dB):       | >15 (0°)      | >15 (0°)  |
|                                   |                         | Cross Polar Ratio ±60° (dB):     | >4 (±60°)     | >4 (±60°) |
|                                   | Service Beam @ 0deg     | 0° Gain (dBi):                   | 22.0±0.5      | 23.0±0.5  |
|                                   |                         | 0° Horizontal 3dB Beamwidth (°): | 18            | 15        |
|                                   |                         | Cross polar ratio (0°) (dB):     | 15            | 15        |
|                                   |                         | Front to Back Ratio (dB):        | 25            | 25        |

|                                                  |                                            |          |          |
|--------------------------------------------------|--------------------------------------------|----------|----------|
| Frequency Range (MHz) :                          | 698-960(R1,R2)                             |          |          |
|                                                  | 698-790                                    | 790-862  | 880-960  |
| Gain (dBi) :                                     | 15.3±0.6                                   | 15.6±0.5 | 15.8±0.7 |
| Return Loss (dB) :                               | >14 (VSWR<1.5)                             |          |          |
| Polarization:                                    | ±45°                                       |          |          |
| Horizontal 3dB Beamwidth (°):                    | 60                                         | 58       | 57       |
| Vertical 3dB Beamwidth (°):                      | 9.0                                        | 8.0      | 7.3      |
| Electrical Downtilt (°) :                        | 2-12 Independently Continuously Adjustable |          |          |
| RET Type:                                        | Cascade SRET, AISG 2.0, Upgradeable        |          |          |
| 1 <sup>st</sup> Upper Sidelobe Suppression (dB): | 15                                         | 15       | 15       |
| Intraband Isolation (dB):                        | >25                                        |          |          |
| Interband Isolation (dB):                        | >25                                        |          |          |
| Max. Power Per Port (W):                         | 250                                        |          |          |
| Intermodulation IM3 (dBc):                       | <-153(2×43 dBm)                            |          |          |
| Impedance (ohm):                                 | 50                                         |          |          |
| Lightning Protection:                            | DC Grounded                                |          |          |
| Connector Type:                                  | 4×4.3-10 Female                            |          |          |



## Product Data Sheet

**S-LU2PX12.10P-2Q****Mechanical Data**

|                                  |                                                                |
|----------------------------------|----------------------------------------------------------------|
| Antenna Dimensions (mm):         | 2300×498×197                                                   |
| Packing Dimensions (mm):         | 2755×580×285                                                   |
| Antenna Net Weight/Bracket (kg): | 35/5.7                                                         |
| Antenna Gross Weight (kg):       | 47                                                             |
| Radome Material:                 | Fiberglass                                                     |
| Pipe OD (mm):                    | 70-114                                                         |
| Mounting Kits (Included):        | BA.K.04.00069471, Adjustable<br>Downtilt0°-8°(0°-8°in 1°steps) |

**Environmental Ratings**

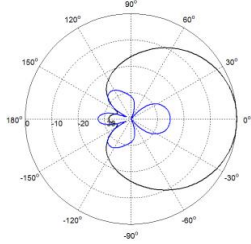
|                          |                                         |
|--------------------------|-----------------------------------------|
| Humidity:                | 95%RH@+30℃                              |
| Temperature (℃):         | -40~+70                                 |
| Wind Load @150 km/h (N): | Frontal/Lateral/Rearside: 1627/296/1650 |
| Max.Wind velocity(km/h): | 200                                     |

**Internal RET Specifications**

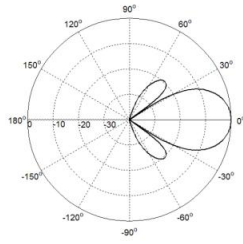
|                                   |                                                                                         |
|-----------------------------------|-----------------------------------------------------------------------------------------|
| RET type:                         | Replaceable RET                                                                         |
| RET protocol:                     | AISG2.0 /3GPP                                                                           |
| Input voltage range(V):           | 10-30 DC                                                                                |
| Power consumption(W):             | < 5 (motor activated , single RET)<br>< 1 (stand by, single RET), < 1.5 (stand by, 12V) |
| Adjustment time (full range) (s): | < 120 (typically, depending on antenna type)                                            |
| RET connector:                    | 1 pair of AISG 5 pin male & female                                                      |
| Pin assignment according AISG:    | 8pin circular connector conforming to IEC 60130-9 - Ed. 3.0                             |
| Lightning protection (kA):        | 5 (8/20 μs Differential mode), 8 (8/20 μs Common mode)                                  |



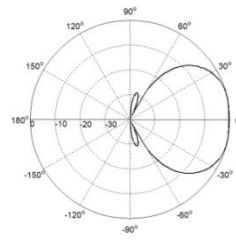
## Product Data Sheet

**S-LU2PX12.10P-2Q****Typical Patterns**

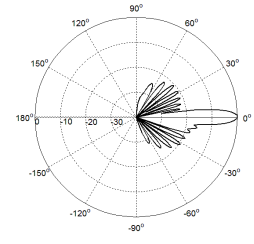
Single Column



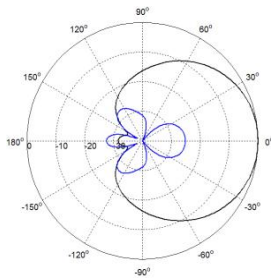
Service Beam @0deg



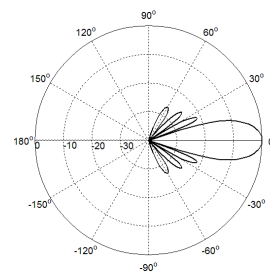
Broadcast Beam



Elevation



Azimuth(698-960MHz)



Elevation(690-960MHz)

**Correlation Table**

| Frequency range | Array | Connector |
|-----------------|-------|-----------|
| 698–960 MHz     | R1    | 1-2       |
| 698–960 MHz     | R2    | 3-4       |
| 1710–2690 MHz   | Y1    | 5-12      |

