Product Data Sheet

# S-SUC2L2PX10.8.10P-2C

X Pol Panel TD Antenna 2300-3800MHz 90° 16dBi 2° -12° Replaceable RET

XXXXX Pol 698-960/2×1427-2690/2×1710-2690MHz 65° /65° /65° 14.5/17/17.5dBi 2° -12° /2° -12° /2° -12° Replaceable RET

| General Electrical Properties | | | |
|---|---|---|---|
| General Parameters | Frequency Range (MHz) : | 2300-3800(P1) | |
| | | 2300-2690 | 3300-3800 |
| | Polarization: | ±45 | |
| | Electrical Downtilt (°) : | 2-12,continuously adjustable | |
| | Lightning Grounding: | DC Grounded | |
| | Connector Type: | 1×MQ5,1×MQ4 Male | |
| 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): | 40 | |
| | Intraband Isolation (dB): | >20 | >22 |
| | Interband Isolation (dB): | >20 | >22 |

| Beamforming Electrical Properties | | | | |
|---|---|---|---|---|
| Radiation parameters | Single Column | Frequency Range (MHz) : | 2300-3800(P1) | |
| | | | 2300-2690 | 3300-3800 |
| | | Horizontal 3dB Beamwidth (°): | 92 | 61 |
| | | Vertical 3dB Beamwidth (°): | 8.3 | 6.1 |
| | | Front to Back Ratio (dB): | >23 | >25 |
| | | Gain (dBi): | 14.5 | 15.9 |
| | | Cross Polar Ratio 0° (dB): | >18 (0°) | >12 (0°) |
| | Broadcast Beam | Horizontal 3dB Beamwidth (°): | 65 | 60 |
| | | Gain (dBi): | 16.0 | 16.0 |
| | | Front to Back Ratio (dB): | 25 | 25 |
| | | Vertical 3dB Beamwidth (°): | 8.3 | 6.1 |
| | | Cross Polar Ratio 0° (dB): | >15 (0°) | >15 (0°) |
| | | 1st upper Side lobe suppression (dB): | >14 | >14 |
| | Service Beam @ 0deg | Gain (dBi): | 19.2 | 19.5 |
| | | Horizontal 3dB Beamwidth (°): | 25 | 25 |
| | | Cross polar ratio (0°) (dB): | 18 | 18 |
| | | Front to Back Ratio (dB): | 25 | 25 |

| Electrical Specifications (698-960/1710-2690 MHz) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency Range (MHz): | 698-960(R1) | | | 1427-2690(Y2,Y3) | | | 1710-2690(Y1,Y4) | | |
| | 698 -806 | 806 -880 | 880 -960 | 1427 -1518 | 1710 -2170 | 2300 -2690 | 1710 -2170 | 2300 -2490 | 2490 -2690 |
| Gain (dBi): | 14.3 | 14.5 | 14.6 | 14.3 | 16.0 | 17.0 | 16.3 | 17.0 | 17.3 |
| Return Loss (dB): | >14 (VSWR<1.5) | | | | | | | | |
| Polarization: | ±45° | | | | | | | | |
| Horizontal 3dB Beamwidth (°): | 63 | 55 | 60 | 86 | 67 | 62 | 66 | 61 | 56 |
| Vertical 3dB Beamwidth (°): | 10.6 | 9.2 | 8.4 | 8.6 | 6.8 | 5.2 | 6.9 | 5.7 | 5.1 |
| Electrical Downtilt (°): | 2-12 Independently Continuously Adjustable | | | | | | | | |
| 1st Upper Sidelobe Suppression (dB): | 15 | 14 | 13 | 11 | 12 | 12 | 13 | 14 | 12 |
| Intraband Isolation (dB): | >25 | | | | | | | | |



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| | | | |
|---|---|---|---|
| Interband Isolation (dB): | >25 | >23 | >25 |
| Max. Power Per Port (W): | 250 | 200 | |
| Intermodulation IM3 (dBc): | <-150 (2×43dBm) | | |
| Impedance (ohm): | 50 | | |
| Lightning Protection: | DC Grounded | | |
| Connector Type: | 10×4.3-10 Female | | |

**BASTA Electrical Specifications**

| Frequency Range(MHz): | 2300-3800(P1) | |
|---|---|---|
| | 2300-2690 | 3300-3800 |
| Average Gain by all Beam Tilts (dBi): | 14.5 | 15.9 |
| Gain by all Beam Tilts Tolerance(dB): | ±1.0 | ±1.1 |
| Average Gain by Beam Tilt (dBi): | 2°\|14.7 | 2°\|16.0 |
| | 7°\|14.6 | 7°\|16.1 |
| | 12°\|14.3 | 12°\|15.5 |
| Horizontal Beamwidth Tolerance(°): | ±16 | ±12 |
| Vertical Beamwidth Tolerance(°): | ±0.8 | ±0.5 |
| 1st Upper Sidelobe Suppression (dB) : | 13 | 11 |
| Front to back Total Power at 180° ± 30°(dB): | 23 | 25 |
| CPR at Boresight(dB): | 18 | 12 |

| Frequency Range (MHz): | 698-960(R1) | | | 1427-2690(Y2,Y3) | | |
|---|---|---|---|---|---|---|
| | 698-806 | 806-880 | 880-960 | 1427-1518 | 1710-2170 | 2300-2690 |
| Average Gain by Beam Tilts (dBi): | 14.3 | 14.6 | 14.5 | 14.3 | 16.0 | 17.0 |
| Gain by all Beam Tilts Tolerance(dB): | ±0.7 | ±0.5 | ±0.5 | ±0.5 | ±1.2 | ±1.0 |
| Average Gain by Beam Tilts (dBi): | 2°\|14.3<br>7°\|14.3<br>12°\|14.2 | 2°\|14.7<br>7°\|14.8<br>12°\|14.4 | 2°\|14.6<br>7°\|14.7<br>12°\|14.2 | 2°\|14.4<br>7°\|14.4<br>12°\|14.3 | 2°\|16.2<br>7°\|16.3<br>12°\|16.0 | 2°\|17.5<br>7°\|17.3<br>12°\|16.3 |
| Horizontal Beamwidth Tolerance(°): | ±6 | ±6 | ±7 | ±6 | ±8 | ±6 |
| Vertical Beamwidth Tolerance(°): | ±0.7 | ±0.5 | ±0.6 | ±0.6 | ±0.9 | ±0.7 |
| 1st Upper Sidelobe Suppression (dB): | 15 | 14 | 13 | 11 | 12 | 11 |
| Front to back Total Power at 180° ± 30°(dB) | 19 | 21 | 21 | 25 | 29 | 29 |
| CPR at Boresight(dB): | 20 | 23 | 24 | 15 | 17 | 16 |

| Frequency Range (MHz): | 1710-2690(Y1,Y4) | | |
|---|---|---|---|
| | 1710-2170 | 2300-2490 | 2490-2690 |
| Average Gain by Beam Tilts (dBi): | 16.3 | 17.0 | 17.3 |
| Gain by all Beam Tilts Tolerance(dB): | ±0.7 | ±0.7 | ±1.0 |
| Average Gain by Beam Tilts (dBi): | 2°\|16.4<br>7°\|16.5<br>12°\|15.9 | 2°\|17.3<br>7°\|17.2<br>12°\|16.4 | 2°\|17.8<br>7°\|17.7<br>12°\|16.5 |
| Horizontal Beamwidth Tolerance(°): | ±7 | ±5 | ±8 |
| Vertical Beamwidth Tolerance(°): | ±0.9 | ±0.5 | ±0.6 |
| Upper Side Lobe Suppression, Peak to 20°(dB): | 13 | 14 | 12 |
| Front to back Total Power at 180° ± 30°(dB) | 28 | 25 | 23 |
| CPR at Boresight(dB): | 21 | 21 | 18 |

# S-SUC2L2PX10.8.10P-2C

## Mechanical Data

| | |
|---|---|
| Antenna Dimensions (mm): | 2095×498×197 |
| Packing Dimensions (mm): | 2360×580×285 |
| Antenna Net Weight/Bracket (kg): | 38/5.9 |
| Antenna Gross Weight (kg): | 50 |
| Radome Material: | Fiberglass |
| Pipe OD (mm): | 50-115 |
| Mounting Kits (Included): | BA.K.04.00069321,Adjustable Downtilt 0-12° |

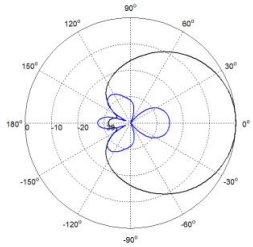
## Environmental Ratings

| | |
|---|---|
| Humidity: | 95%RH@+30℃ |
| Temperature (℃): | -40～+70 |
| Wind Load @150 km/h (N): | Frontal/Lateral/Rearside:1356/241/1375 |
| Max.Wind velocity(km/h): | 200 |

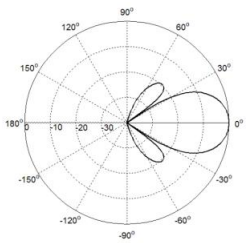
## Internal RET Specifications

| | |
|---|---|
| RET Type: | Replaceable RET |
| RET protocol: | AISG 2.0 /3 GPP |
| 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: | 8 pin 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) |

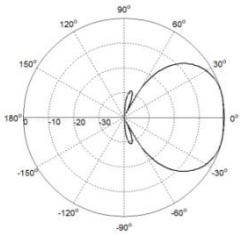
## Typical Patterns



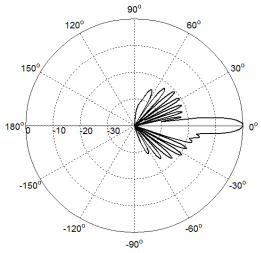
Single Column



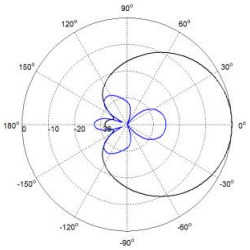
Service Beam @0deg



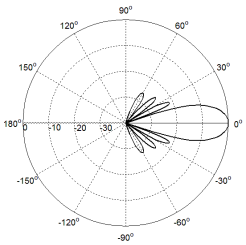
Broadcast Beam



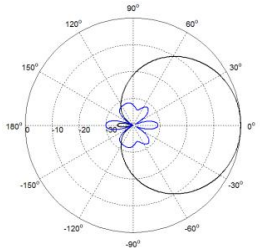
Elevation



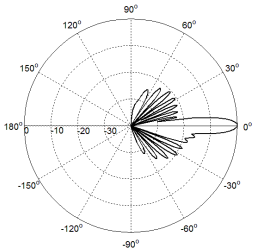
Azimuth(698–960MHz)



Elevation(698–960MHz)



Azimuth(1427–2690MHz)



Elevation(1427–2690MHz)



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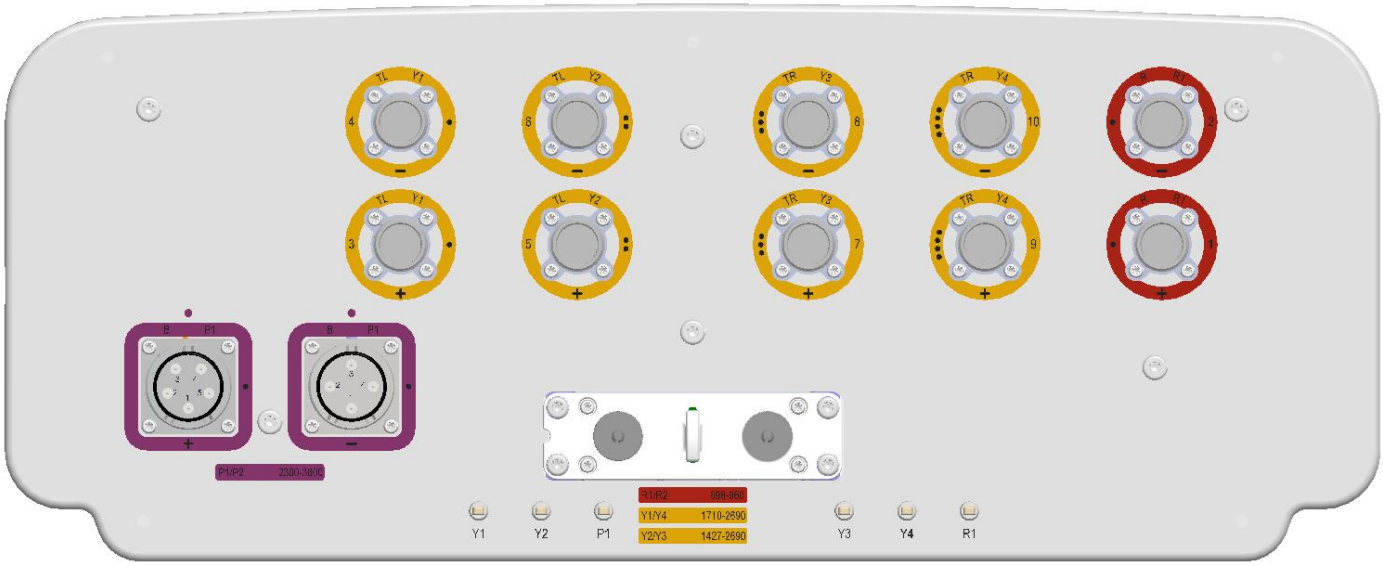
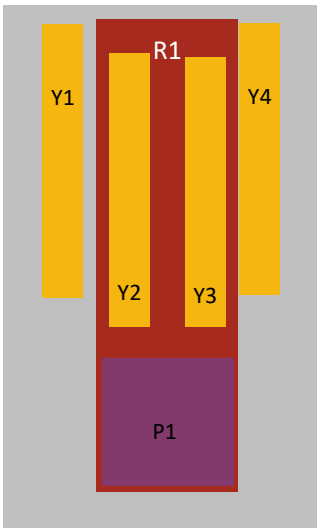
# S-SUC2L2PX10.8.10P-2C

**Bottom View**




**Correlation Table**

| Frequency | Array | Connector | RET S/N |
|---|---|---|---|
| 698–960 MHz | R1 | 1-2 | BR...1R1 |
| 1710–2690 MHz | Y1 | 3-4 | BR...2Y1 |
| 1427–2690 MHz | Y2 | 5-6 | BR...3Y2 |
| 1427–2690 MHz | Y3 | 7-8 | BR...4Y3 |
| 1710–2690 MHz | Y4 | 9-10 | BR...5Y4 |
| 2300–3800 MHz | P1 | 1×MQ5,1×MQ4 | BR...6P1 |



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