

**S-HPX0411P-2Q****X Pol Panel TD Antenna 2300-2690MHz 90° 16dBi 2°-12° Replaceable RET**

| General Electrical Properties         |                                                                     |                                |               |
|---------------------------------------|---------------------------------------------------------------------|--------------------------------|---------------|
| General Parameters                    | Frequency Range (MHz)                                               | 2300-2400(Y1)                  | 2500-2690(Y1) |
|                                       | Polarization                                                        | ±45                            |               |
|                                       | Electrical Downtilt (°)                                             | 2-12 , continuously adjustable |               |
|                                       | Grounding                                                           | DC Grounded                    |               |
| Calibration and Electrical Parameters | Coupling Factor between calibration port and each antenna port (dB) | -26±2                          |               |
|                                       | Max Amp/Phase Deviation:                                            | ≤0.8/ 7°                       |               |
|                                       | VSWR:                                                               | ≤1.5                           |               |
|                                       | Co-polarization isolation between ports (dB):                       | ≥20                            |               |
|                                       | Cross-polarization isolation between ports (dB) :                   | ≥25                            |               |
|                                       | Avg. power per input(W)                                             | ≥50                            |               |

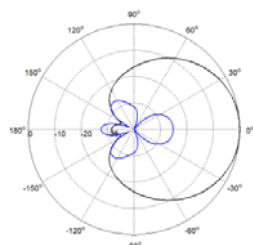
| Beamforming Electrical Properties |                       |                                        |               |               |
|-----------------------------------|-----------------------|----------------------------------------|---------------|---------------|
| Radiation parameters              | Frequency Range (MHz) |                                        | 2300-2400(Y1) | 2500-2690(Y1) |
|                                   | Single Column         | Horizontal 3dB Beamwidth (°):          | 80±20         | 72±15         |
|                                   |                       | Gain(dBi):                             | 15.2±1.0      | 15.4±1.0      |
|                                   |                       | Vertical 3dB Beamwidth (°):            | 5.9           | 5.2           |
|                                   |                       | Cross Polar Ratio 0° (dB):             | ≥17           | ≥17           |
|                                   |                       | Front to Back Ratio (dB):              | ≥22           | ≥22           |
|                                   |                       | First upper Side lobe suppression (dB) | ≥14           | ≥14           |
|                                   | Broadcast Beam        | Gain(dBi):                             | 15.5±0.8      | 16.0±0.8      |
|                                   |                       | Horizontal 3dB Beamwidth (°):          | 65±15         | 65±15         |
|                                   |                       | Vertical 3dB Beamwidth (°):            | 5.9           | 5.3           |
|                                   |                       | Front to Back Ratio (dB):              | ≥23           | ≥23           |
|                                   |                       | First upper Side lobe suppression (dB) | ≥15           | ≥15           |
|                                   | Service Beam @ 0deg   | Gain(dBi):                             | 20.8±1.0      | 21.0±1.0      |
|                                   |                       | Horizontal 3dB Beamwidth (°):          | 22            | 20            |
|                                   |                       | Horizontal sidelobe level (°):         | ≤-11          | ≤-11          |
|                                   |                       | Cross Polar Ratio 0° (dB):             | ≥20           | ≥20           |
|                                   |                       | Front to Back Ratio (dB):              | ≥25           | ≥25           |
|                                   | Service Beam@ ±60deg  | Gain(dBi):                             | 16.8±0.5      | 17.5±0.5      |
|                                   |                       | Horizontal 3dB Beamwidth (°):          | 26            | 24            |
|                                   |                       | Horizontal sidelobe level (°):         | ≤0            | ≤0            |

**Mechanical Data**

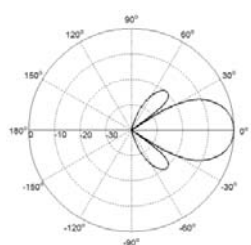
|                                   |                                              |
|-----------------------------------|----------------------------------------------|
| Antenna Dimensions (mm):          | 1500×320×140                                 |
| Packing Dimensions (mm):          | 1760×405×230                                 |
| Antenna Net Weight /Bracket (kg): | 19 / 5.9                                     |
| Antenna Gross Weight (kg):        | 29                                           |
| Connector Type:                   | 1×MQ4, 1×MQ5                                 |
| Radome Material:                  | Fiberglass                                   |
| Pipe OD (mm):                     | 50-115                                       |
| Mounting Kits (Included):         | BA.K.04.00069351, Adjustable Downtilt 0°-16° |
| Humidity:                         | 95%RH@+30℃                                   |
| Temperature (℃):                  | -40~+70                                      |
| Wind Load @150 km/h (N):          | Frontal/Lateral/Rear side: 549/146/747       |
| Max. Wind velocity (km/h)         | 200                                          |

**Internal RET Specifications**

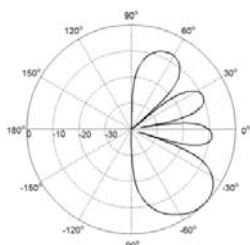
|                                   |                                                                                        |
|-----------------------------------|----------------------------------------------------------------------------------------|
| RET Type:                         | Replaceable 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**

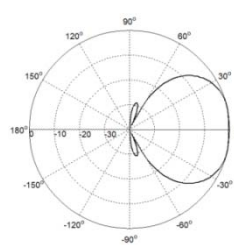
Single Column



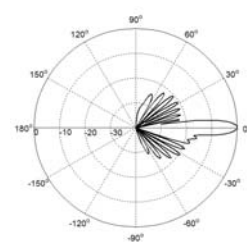
Service Beam @0deg



Service Beam @60deg



Broadcast Beam



Elevation

**Correlation Table**

| Frequency Range | Array | Connector    |
|-----------------|-------|--------------|
| 2300-2690MHz    | Y1    | 1×MQ4, 1×MQ5 |

