

# Product Data Sheet

☎ 1-855-276-(KPPA) 5772 or 780-702-7577  
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✉ 9850 W 190th St, Suite F, Mokena, IL 60448



## KP-3DP120S-45

2-port sector antenna, 3300-3800 MHz, 120° HPBW

- High gain and slant dual polarization
- Simultaneously maximize coverage and minimize interference
- Ideal for 2-sector frequency-reuse one with LTE equipment

### Electrical Specification

|                                       |        |                 |                   |
|---------------------------------------|--------|-----------------|-------------------|
| Frequency Band                        | MHz    | 3300—3550       | 3550—3800         |
| Gain                                  | dBi    | 15±0.25         | 15.5±0.25         |
| Polarization                          |        | Slant (±45°)    | Slant (±45°)      |
| Horizontal HPBW                       | Degree | 115±5           | 120±5             |
| Horizontal Squint                     | Degree | ±4              | ±2                |
| Vertical HPBW                         | Degree | 8±1             | 7±1               |
| Electrical Downtilt                   | Degree | 3.5             | 3                 |
| Front-to-Back Ratio @ 180°            | dB     | 40              | 40                |
| Front-to-Back Ratio @ 180°±30°        | dB     | 28              | 30                |
| Cross-polarization Ratio at Boresight | dB     | 25              | 20                |
| Cross-polarization Ratio over HPBW    | dB     | 15              | 14                |
| VSWR                                  |        | 1.7 typ   2 max | 1.5 typ   1.7 max |
| Return Loss                           | dB     | 12 typ   10 max | 14 typ   12 max   |
| Port-to-Port Isolation                | dB     | 20              | 25                |
| Max. Input Power per Port             | W      | 50              | 50                |
| Impedance                             | Ohms   | 50              | 50                |

### Mechanical Specifications

|                       |   |
|-----------------------|---|
| RF Connector Type     | Type N Female   |
| RF Connector Quantity | 2   |
| RF Connector Position | Bottom of radome  |
| Electrical Grounding  | RF connector grounded to reflector and mounting bracket |
| Radome Material       | UV resistant PVC  |
| Ingress Protection    | IP55 rain and dust resistant                            |
| Wind Load, frontal    | 220N @ 160km/h   49lbf @ 100mph                         |
| Max. Wind Speed       | 160km/h   100mph  |
| Temperature Range     | -40° to +60° C   -40° to +140° F                        |

### Bracket Specifications

|                             |                                |
|-----------------------------|--------------------------------|
| Material Type               | Hot Dipped Galvanized Steel    |
| Mechanical Tilt (Degree)    | -4 – 15                        |
| Mounting Type               | Pipe Mount                     |
| Mounting pole diameter      | 25 mm – 89 mm   1¼ in – 3.5 in |
| Antenna-to-Pipe Distance    | 127 mm   5 in                  |
| Bracket-to-Bracket Distance | 546 mm   21.5 in               |

ANTENNAS ENGINEERED & MANUFACTURED TO EXCEED INDUSTRY STANDARDS

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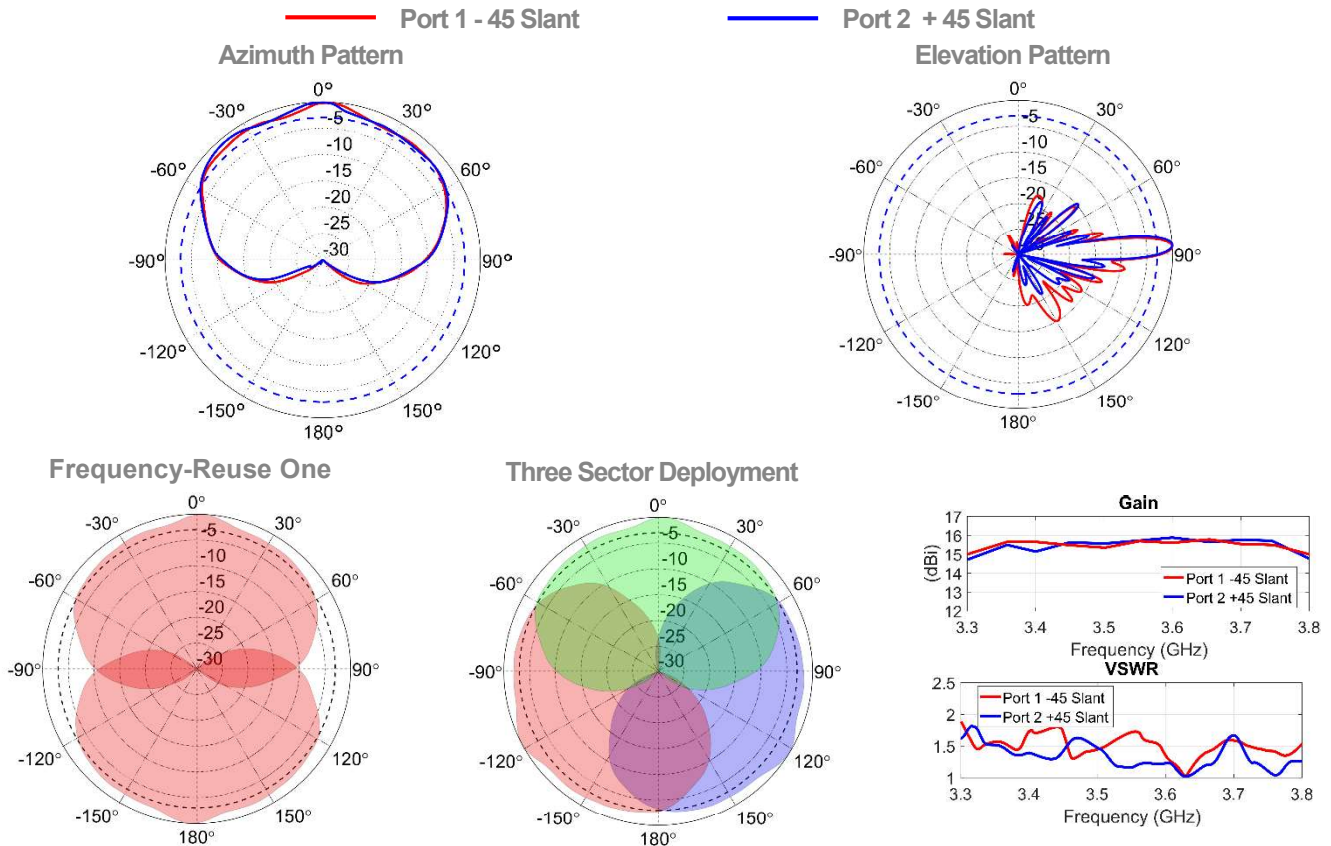
## Sector Dimensions

|                           |        |  |        |
|---------------------------|--------|--|--------|
| Length                    | 736 mm |  | 29 in  |
| Width                     | 178 mm |  | 7 in   |
| Height                    | 89 mm  |  | 3.5 in |
| Net Weight, with brackets | 5.0 kg |  | 11 lb  |

## Package Dimensions

|            |        |  |       |
|------------|--------|--|-------|
| Length     | 813 mm |  | 32 in |
| Width      | 305 mm |  | 12 in |
| Height     | 229 mm |  | 9 in  |
| Net Weight | 8.2 kg |  | 18 lb |

## Graphical Data

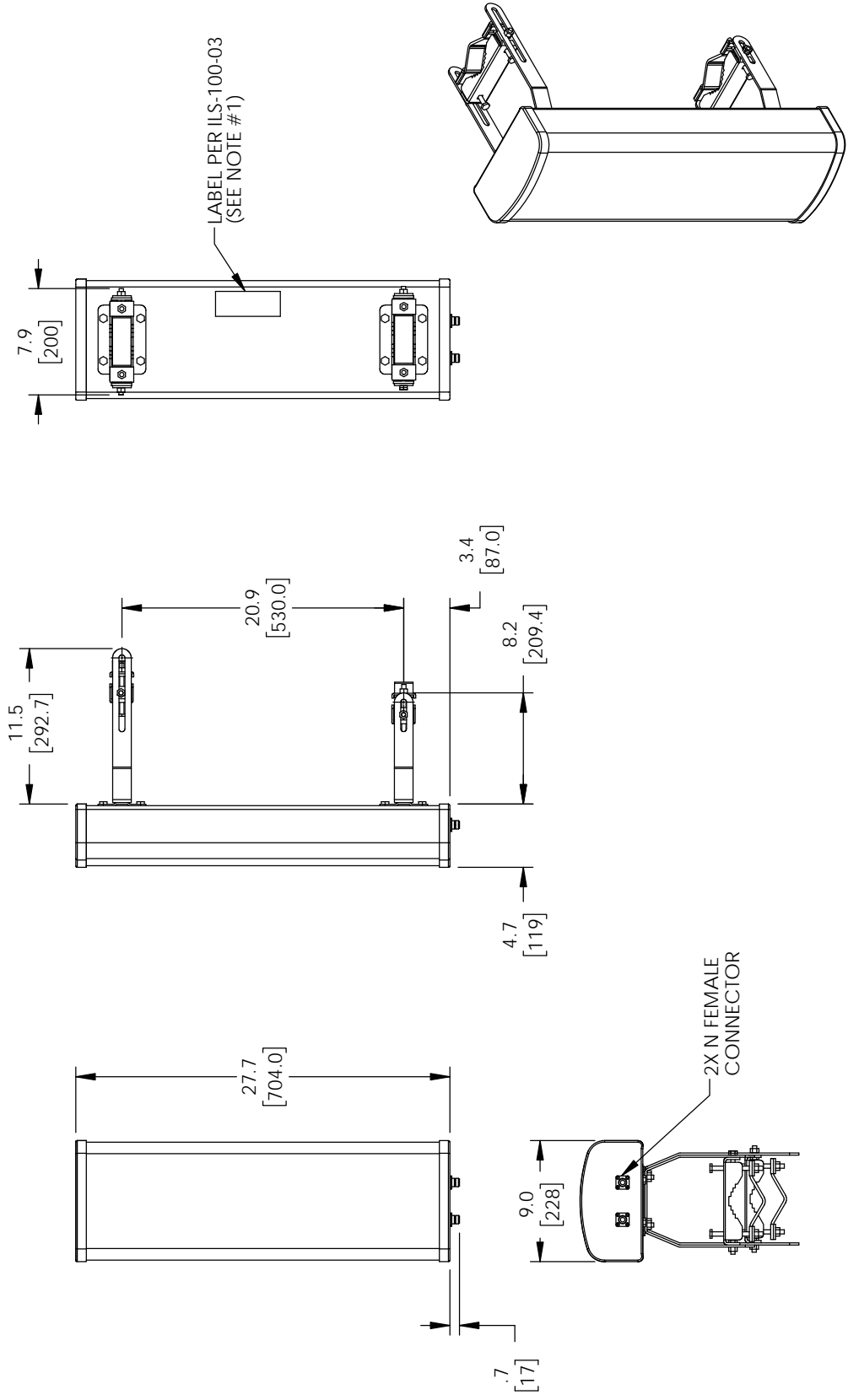


## Appendix

**HPBW:** Average and variation of the antenna's 3dB beamwidth (half power beamwidth) in its horizontal (Azimuth) or vertical (Elevation) pattern.  
**Horizontal Squint:** Angle in the antenna's azimuth pattern in which the maximum gain occurs. Reported is the maximum variation in the frequency band.  
**Electrical Downtilt:** Angle in the antenna's elevation pattern in which the maximum gain occurs.  
**Gain:** Antenna's average gain and variation in each frequency band.  
**Front to Back Ratio @ 180°:** Difference between the antenna's maximum gain and the gain directly behind the antenna ( $\theta=180^\circ$ ).  
**Front to Back Ratio @  $180^\circ \pm 30^\circ$ :** Difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over  $\pm 30^\circ$  angles.  
**Cross polarization at boresight:** Difference between the co-polarization and cross-polarization gain at  $0^\circ$  (boresight).  
**Cross-polarization Ratio over HPBW (dB):** Maximum difference between the co-polarization and cross-polarization gain across the sector's HPBW.

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| REVISIONS |             |            |          |
|-----------|-------------|------------|----------|
| REV.      | DESCRIPTION | DATE       | APPROVED |
| B         | PCR         | 06/07/2022 | KHIETPAS |



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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:  
 X = ±.2 [5.08] FRACTIONS ±.132  
 .XX = ±.02 [.51] ANGLES ± 1°  
 .XXX = ±.005 [.13]  
 CABLE LENGTH (L) TOLERANCES:  
 L ≤ 12 [305] = +1 [25] / -0  
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
 300 [7620] < L = +5% / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1  
 SCALE N/A

SIZE A N/A DRAWN BY DZINN ITEM NO. KP-3DP-120S-45 REV A

NOTES:  
 1. LABEL PER ILS-100-03, FOR INTERNAL REFERENCE ONLY.  
 LABEL LOCATION FOR REFERENCE ONLY.

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