# PAS69278P

## 2-Port MIMO Pole Mount Low-PIM Directional Panel Antenna
## 698-960 MHz/1710-2700 MHz

***Patent-pending PAS69278P***

The patent-pending PAS69278P antenna is a wide-band dual-port panel antenna with slant 45 polarization that covers the domestic LTE700/Cellular/PCS/AWS/MDS and global GSM900/GSM1800/ UMTS/LTE2600 bands. The antenna is ideal for both indoor and outdoor applications. It includes a UV-stable radome enclosure that provides years of use without degradation to either the mechanical properties or aesthetics.

## FEATURES AND BENEFITS

- Applicable for 3G/4G, domestic LTE 700 band, Global LTE 2600 band, WiMax 2300/2500 band, domestic cellular and global GSM solutions
- Weatherproof UV stable radome
- Low Passive Intermodulation
- Conformance to RoHS

| ELECTRICAL SPECIFICATIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Operating Frequency (MHz) | 700 | 850 | 900 | 1800 | 1900 | 2100 | 2300 | 2600 |
| Peak Gain, dBi (Typ) | 8.7 | 9.0 | 9.8 | 7.5 | 8.5 | 8.4 | 9.5 | 9.7 |
| Peak Gain, dBi (Max) | 9.1 | 9.7 | 10.4 | 8.5 | 9.1 | 9.1 | 10.1 | 10.0 |
| PAS69278P-91NF Additional Loss, dB | 0.5 | 0.6 | 0.6 | 0.9 | 0.9 | 1.0 | 1.1 | 1.1 |
| VSWR - Avg | <2.0:1 | <1.9:1 | <1.7:1 | <1.6:1 | <1.5:1 | <1.5:1 | <1.6:1 | <1.8:1 |
| Isolation, dB (Typ) | <-38 | <-40 | <-40 | <-30 | <-30 | <-30 | <-30 | <-30 |
| 3 dB Beamwidth, Vertical Plane | 66° to 70° | 61° to 65° | 56° to 60° | 57° to 84° | 46° to 62° | 46° to 72° | 57° to 66° | 48° to 55° |
| 3 dB Beamwidth, Horizontal Plane | 65° to 74° | 59° to 65° | 57° to 60° | 56° to 85° | 52° to 64° | 52° to 82° | 58° to 63° | 48° to 54° |
| PIM, 3rd Order, 2 x 20W, dBc (Typ) | < -151 | | | < -153 | | | | |
| CPR at Boresight, dB (Typ) | 25 | | | 23 | | | | |
| CPR at Boresight, dB (Min) | 25 | | | 17 | | | | |
| F/B Ration, Co-pol (dB) | 21 | | | | | | | |
| VSWR – Max | 2.0:1 | | | | | | | |
| PIM - 2x20W (dBc) | < -150 | | | | | | | |
| Isolation – Min (dB) | -28 | | | | | | | |
| Nominal Impedance (Ohms) | 50 | | | | | | | |
| Max Input Power Per Port - Ambient 25°C (W) | 50 | | | | | | | |
| Polarization | Slant ± 45° | | | | | | | |

| MECHANICAL SPECIFICATIONS | |
|---|---|
| Dimensions – mm (inches) | 295 x 295 x 82 (11.6 x 11.6 x 3.2) |
| Weight – kg (lbs.) | 1.46 (3.2) |
| Radome Material and Base Color | White, color code (SABIC) WH9B034 |
| RF Connector | Dual Type N female |

| ENVIRONMENTAL SPECIFICATIONS | |
|---|---|
| Operating Temperature - °C (°F) | -30 to 70°C (-22 to 158°F) |
| Storage Temperature – °C (°F) | -40 to 85°C (-40 to 185°F) |
| Environmental Conditions | ETSI EN300 019-2-4, class 4.1E |
| Wind Rating – km/hr (mph) | 150 (93) |
| Ingress Protection Rating | PAS69278P-FNF model only for outdoor IP55 |
| Flammability Rating | UL 94V0 Materials |
| Material Substance Compliance | RoHS |

## CONFIGURATION

| PART NUMBER | CABLE LENGTH | CONNECTOR |
|---|---|---|
| PAS69278P-FNF | NA (Direct Connect) | Dual Type N Female |
| PAS69278P-91NF | 91 cm, (36"), cable | Dual Type N Female |
| PAS69278P-30D41F | 30 cm, (12"), cable | Dual Type 4.1-9.5 Female |
| PAS69278P-30D43F | 30 cm, (12"), cable | Dual Type 4.3-10 Female |

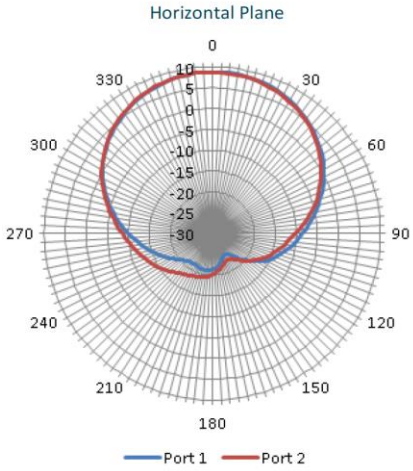
## MOUNTING OPTIONS

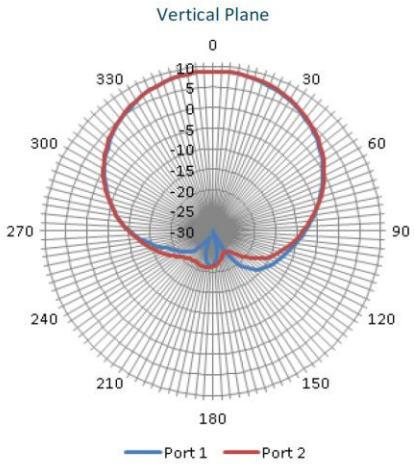
Close-up of connector and bracket system

Optional mounting kit
Part Number: HKIT-PAx-001

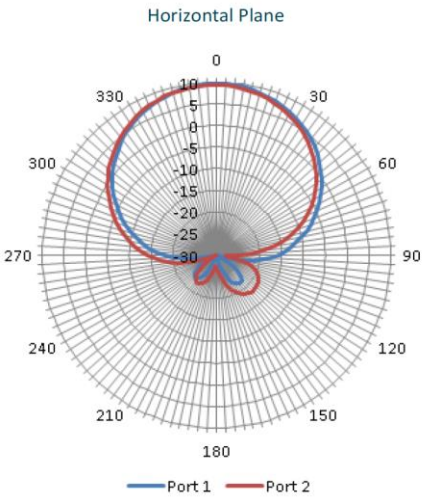
## RADIATION PATTERNS

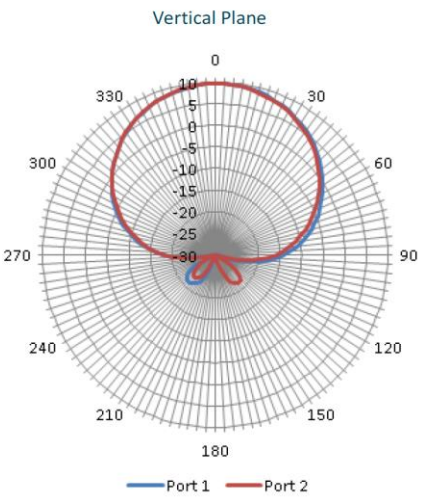
**698 MHz**




**880 MHz**

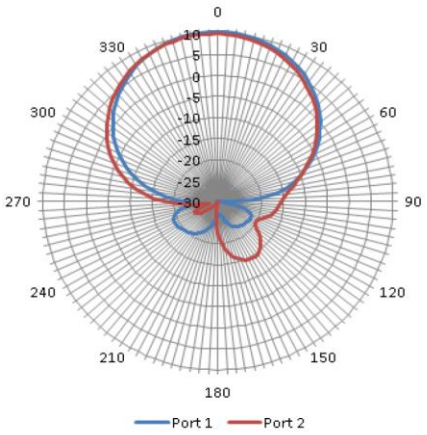


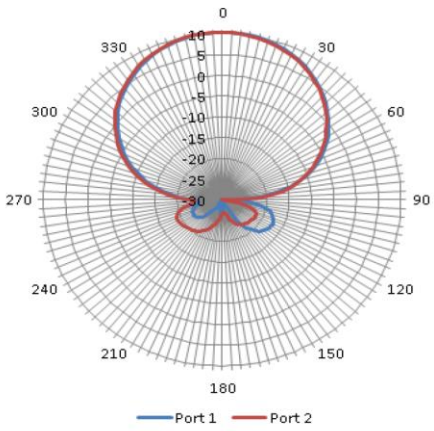
## RADIATION PATTERNS (continued)

**960 MHz**

Horizontal Plane

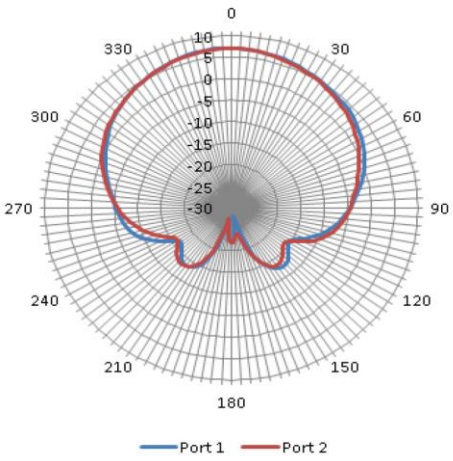



Vertical Plane

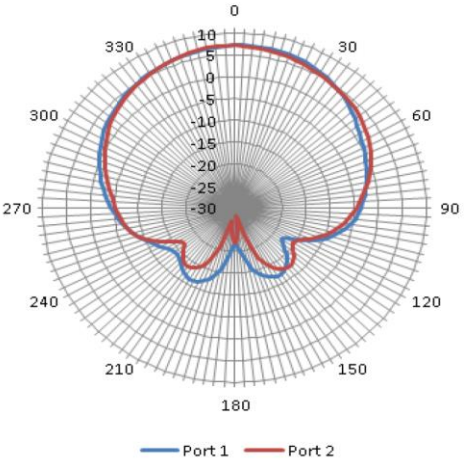



**1710 MHz**

Horizontal Plane

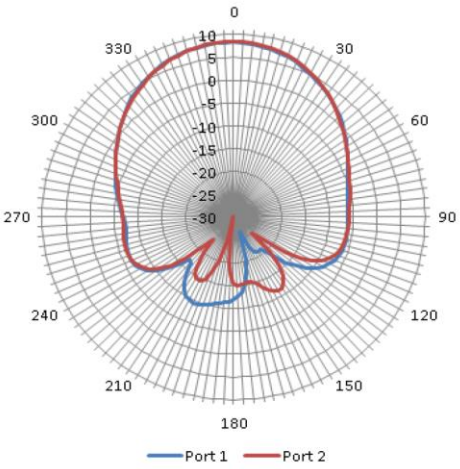



Vertical Plane

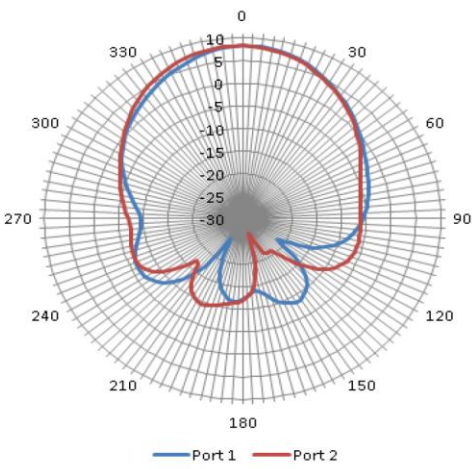



**1950 MHz**

Horizontal Plane



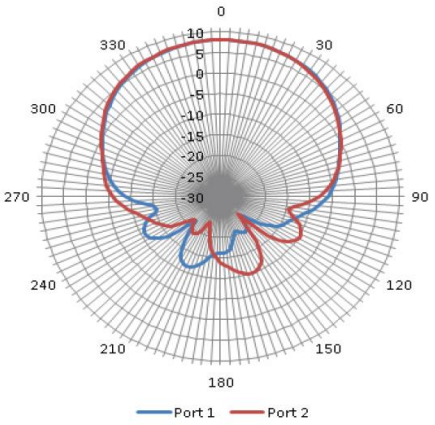

Vertical Plane



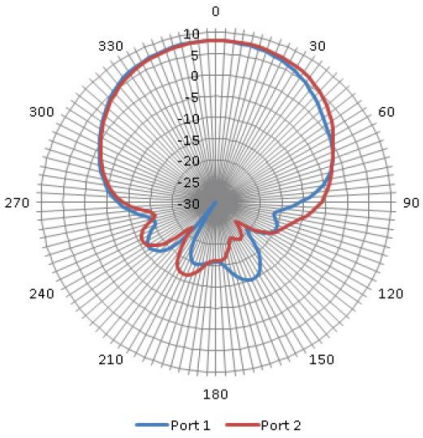
## RADIATION PATTERNS (continued)

**2170 MHz**

Horizontal Plane

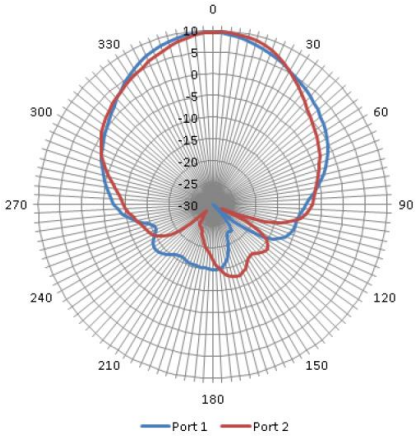



Vertical Plane

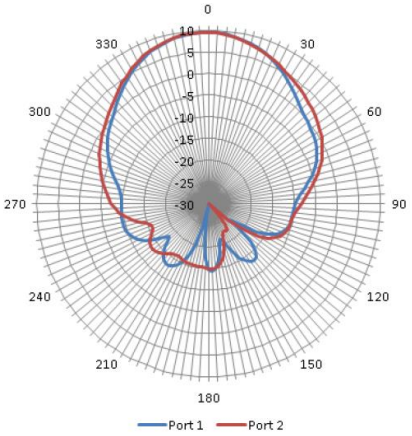



**2700 MHz**

Horizontal Plane




Vertical Plane

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RoHS