

Tri Port High-Power LPDA Antenna

400 – 6000 MHz

Product Code: LPDA-A0167

VERSION: 1.2

SPECIFICATIONS:



Electrical:	
Frequency range	400 – 6000 MHz
Band A	400 – 930 MHz
Band B	1160 – 1610 MHz
Band C	2400 – 6000 MHz
VSWR	< 2.0:1
Nominal input impedance	50 Ω
Connector	3x N-type female
Feed power handling	100W CW
Gain (typical)	See graph below
E-plane 3 dB beamwidth	
Band A	95° - 105°
Band B	65° - 75°
Band C	65° - 75°
H-plane 3 dB beamwidth	
Band A	55° - 65°
Band B	45° - 55°
Band C	45° - 55°
Polarisation	Linear
Front-to-back ratio	≥ 19 dB
Mechanical:	
Dimensions (l x h x w)	600 mm x 880 mm x 160 mm (incl. bracket)
Material	Aluminium, stainless steel, fibreglass
Total mass	< 6 kg (incl. mounting bracket)
Mounting method	4 x M8 Bolts
MTBF	500,000 h
Environmental: designed to meet the following specifications	
Wind survival	160 km/h calculated
Operating Temperature	-30°C to +65° (no icing)
Storage Temperature	-40°C to +85°

PRODUCT FEATURES:

- Wideband frequency 400 to 6000 MHz
- VSWR < 2.0:1
- High gain: > 7 dBi
- Rugged construction
- Ice resistant

PRODUCT APPLICATIONS:

- Wideband
- High-Power

PRODUCT DESCRIPTION:

The LPDA-A0167 tri port directional log-periodic dipole array (LPDA) is primarily designed for high-power applications. It covers a frequency band of 400 to 6000 MHz with a gain of greater than 7 dBi.

The antenna provides three separate ports for simultaneous transmission in all bands with good isolation between bands.

The antenna is completely encapsulated in a radome. The antenna is provided with a mounting bracket.

Tri Port High-Power LPDA Antenna

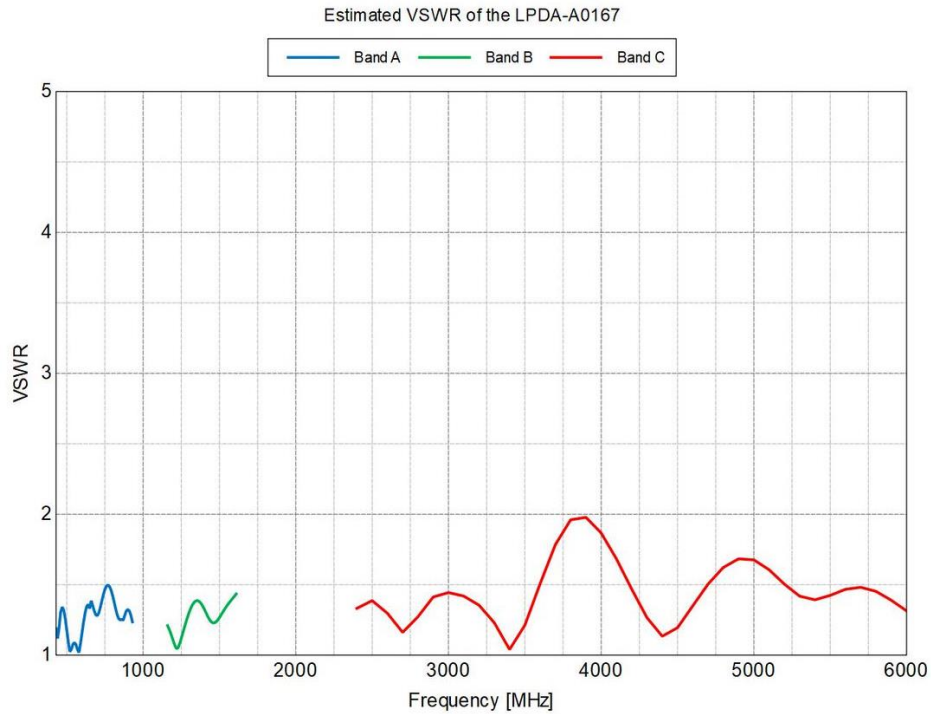
400 – 6000 MHz

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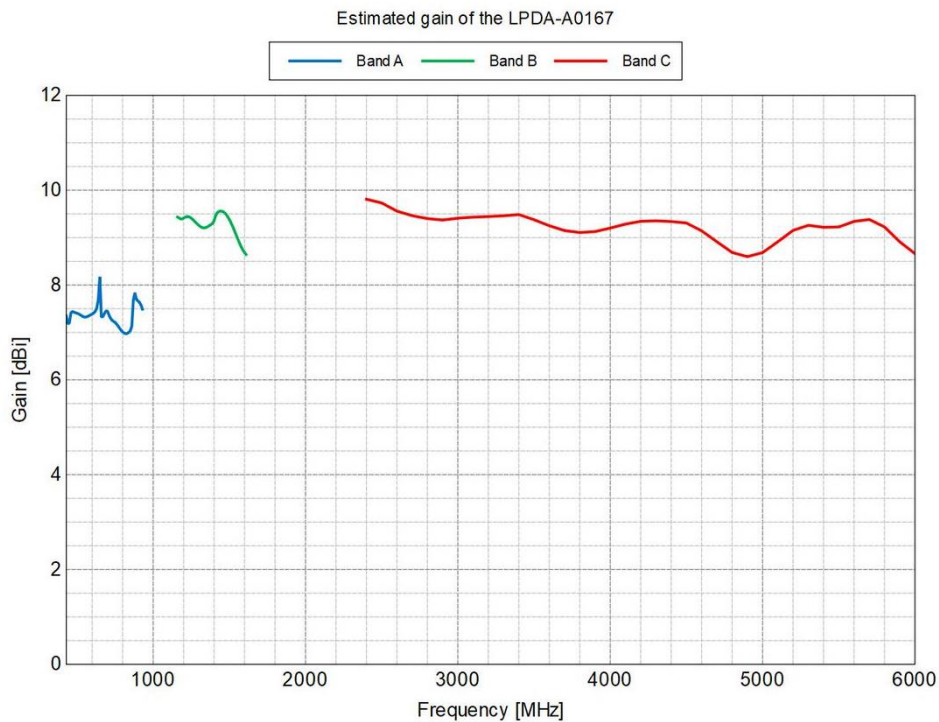
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VSWR AND GAIN GRAPHS:

Typical VSWR:



GAIN:



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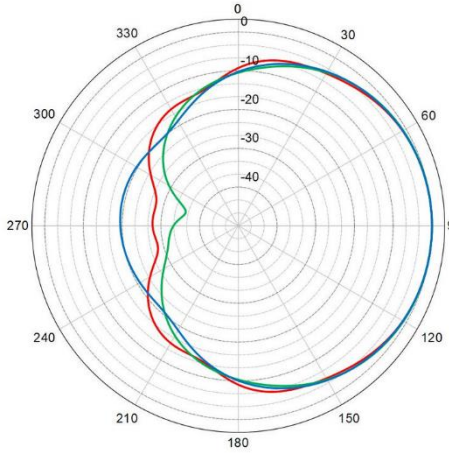
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RADIATION PATTERNS:

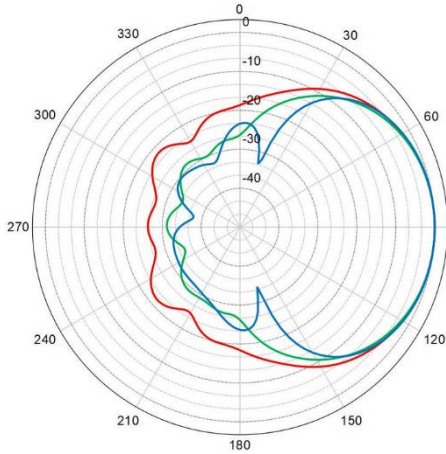
Estimated E-Plane radiation patterns of the LPDA-A0167 Band A

Frequency = 430 MHz Frequency = 680 MHz Frequency = 930 MHz



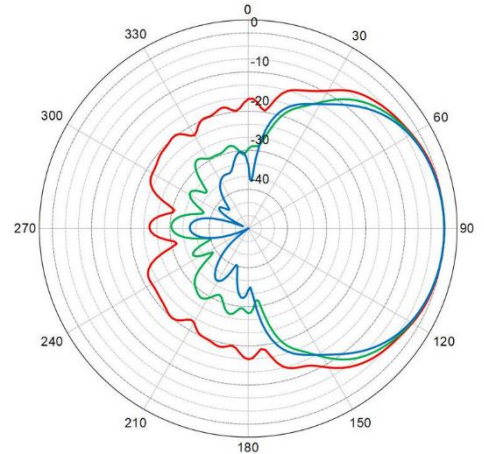
Estimated E-Plane radiation patterns of the LPDA-A0167 Band B

Frequency = 1.16 GHz Frequency = 1.38 GHz Frequency = 1.61 GHz



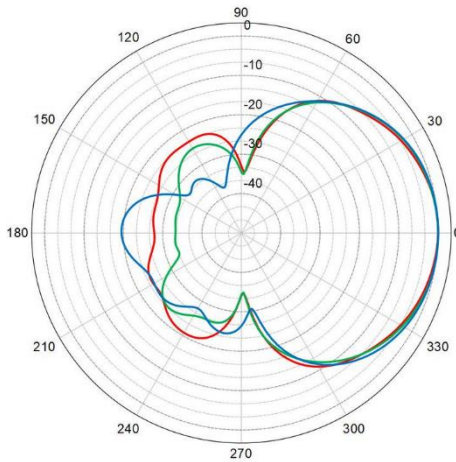
Estimated E-Plane radiation patterns of the LPDA-A0167 Band C

Frequency = 2.4 GHz Frequency = 4.2 GHz Frequency = 6 GHz



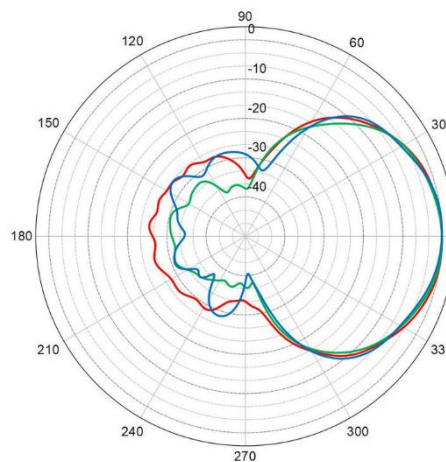
Estimated H-Plane radiation patterns of the LPDA-A0167 Band A

Frequency = 430 MHz Frequency = 680 MHz Frequency = 930 MHz



Estimated H-Plane radiation patterns of the LPDA-A0167 Band B

Frequency = 1.16 GHz Frequency = 1.38 GHz Frequency = 1.61 GHz



Estimated H-Plane radiation patterns of the LPDA-A0167 Band C

Frequency = 2.4 GHz Frequency = 4.2 GHz Frequency = 6 GHz

