FlexPIFA 6E

Wi-Fi 6E Internal Antenna
2400-2500/4900-5925/5925-7125 MHz

In 2020 the FCC announced the allocation of a new frequency spectrum for Wi-Fi applications, extending the frequencies up to 7125 MHz.

FlexPIFA 6E antennas support the full Wi-Fi spectrum of 2400-2500, 4900-5925, and 5925-7125 MHz frequency bands. This makes them an ideal solution for coverage of traditional Wi-Fi frequencies with the addition of futureproofing for newly emerging Wi-Fi 6E applications.

Designed for rapid integration into space-constrained devices and housings, the flexible, adhesive-backed antennas are available with MHF1 or MHF4L connectors, providing multiple installation solutions for IoT device manufacturers.

PIFA antenna technology provides consistent, stable performance across all three Wi-Fi bands, ensuring a solid and reliable connection at all times.

FEATURES AND BENEFITS

- **Full Coverage** – Operates over all three Wi-Fi bands
- **Performance** – Exceptional performance across all bands
- **Versatile** – Flexible, peel-and-stick adhesive-backed antenna for a variety of space-constrained IoT devices
- **Future-Proofed** – Coverage for emerging Wi-Fi 6E applications
- **Reliable** – PIFA technology is easy to integrate into IoT devices and less likely to detune in proximity of metal or a human body
- **Quality** – Designed and built to exacting specifications

APPLICATIONS

- Smart metering and utilities
- Industrial IoT
- Agricultural and rural (Farm sense and control)
- Quick service restaurants
- Smart lockers
- Medical devices

ELECTRICAL SPECIFICATIONS			
\Number of Ports	1		
Operating Frequency (MHz)	2400-2500	4900-5925	5925-7125
VSWR – Avg	1.4:1	1.9:1	1.6:1
VSWR – Max	<2.5:1	<3.0:1	<3.0:1
Peak Gain – (dBi) *	2.2	3.9	3.8
Efficiency – Avg (%)	59	60	60
Efficiency – Avg (dB)	-2.3	-2.2	-2.2
Nominal Impedance (ohms)	50		
Max Power - Ambient 25°C (W)	5		
Polarization	Linear		
Azimuth Beamwidth	360°, Omnidirectional		

Note: Measured on a 100 mm x 100 mm x 1.7 mm thick polycarbonate sheet.

***** Actual peak gain values can be influenced by measurement variation and other uncertainties.

MECHANICAL SPECIFICATIONS	
Dimensions – length x width x height – mm (inches)	16 x 36 x 2.5 (0.62 x 1.41 x .098)
Weight – g (oz.)	0.6
Adhesive	3M 467MP

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Storage Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Material Substance Compliance	RoHS

CONFIGURATION

PART NUMBER	EXPOSED CABLE LENGTH/DIAMETER	CONNECTOR
EFB2471A3S-10MHF1	100 mm/1.13 mm	MHF1
EFB2471A3S-10MH4L	100 mm/1.13 mm	MHF4L

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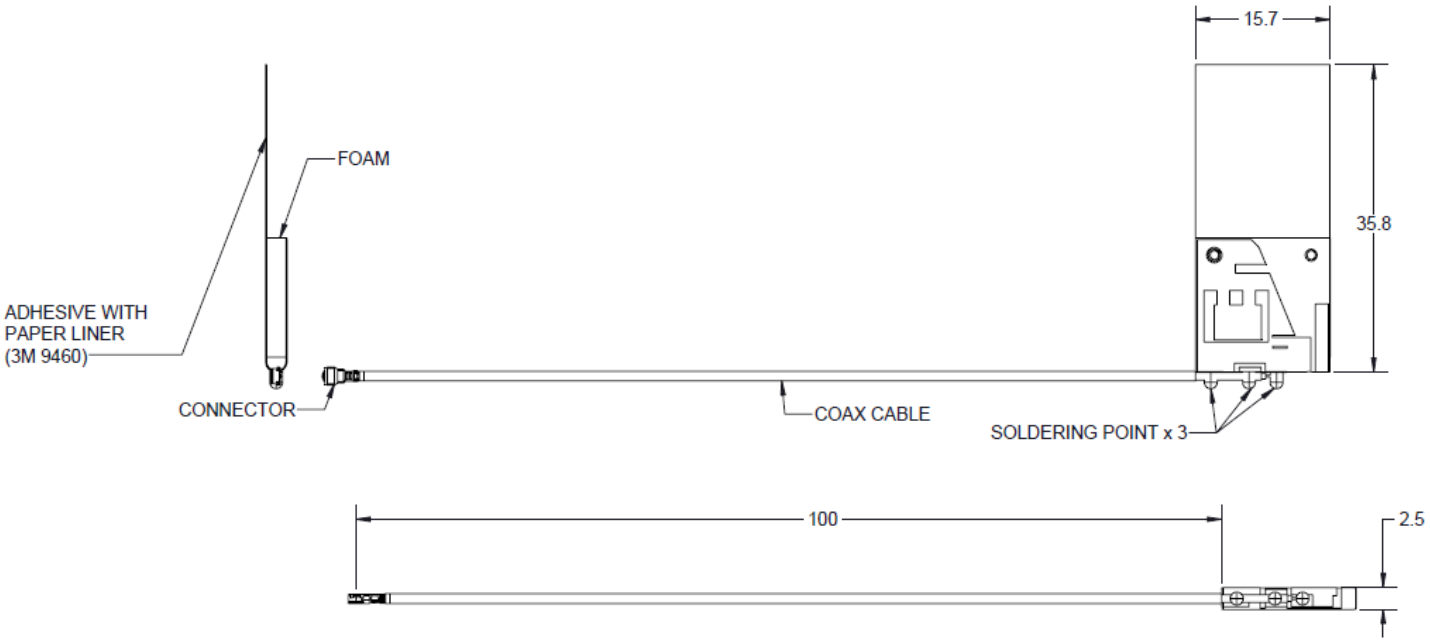
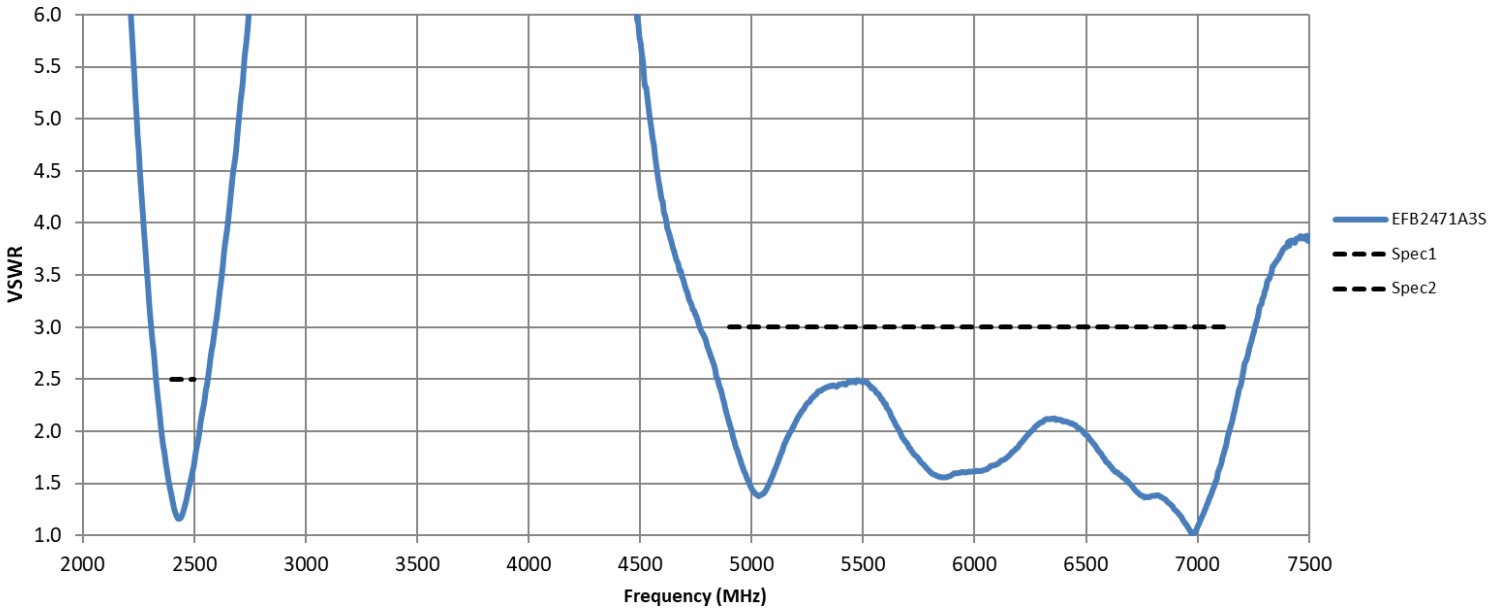
MECHANICAL DRAWING



VSWR



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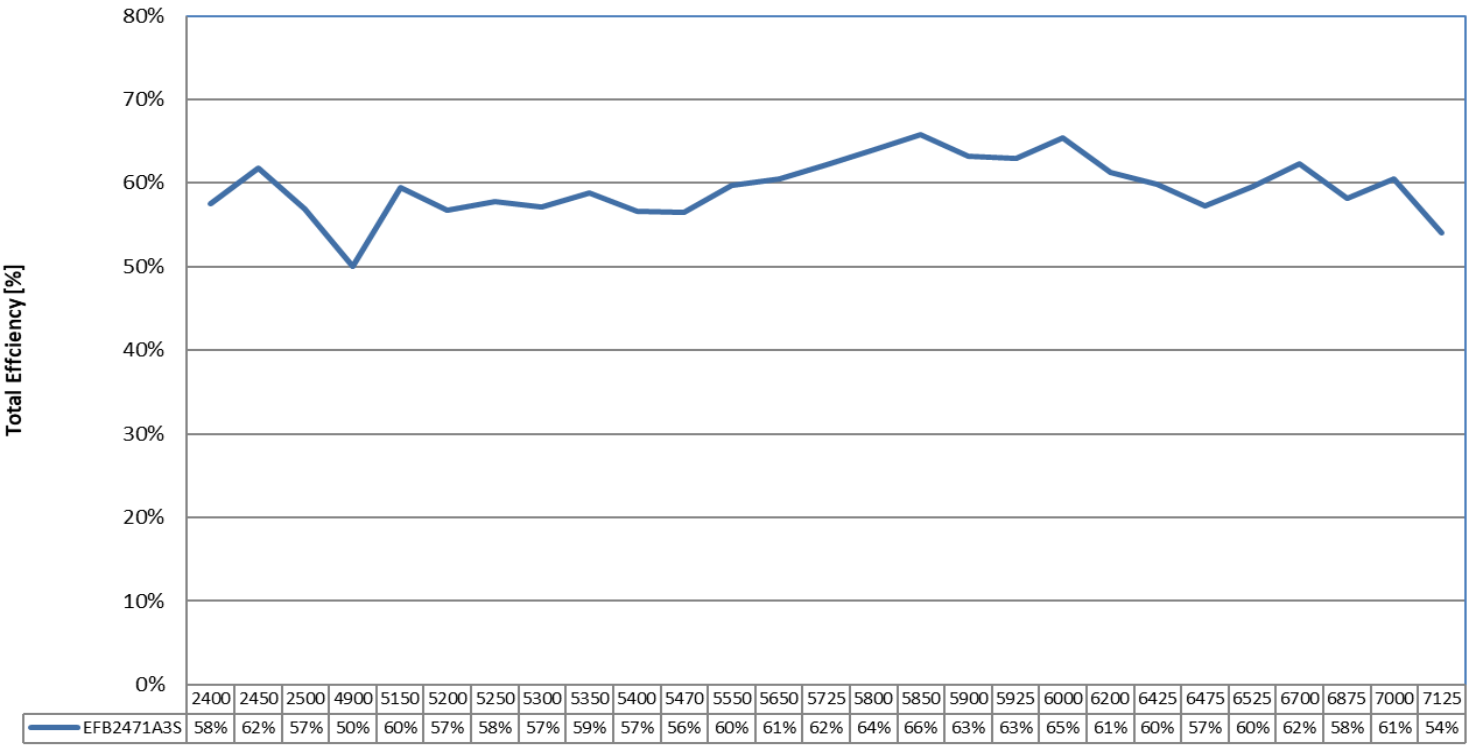
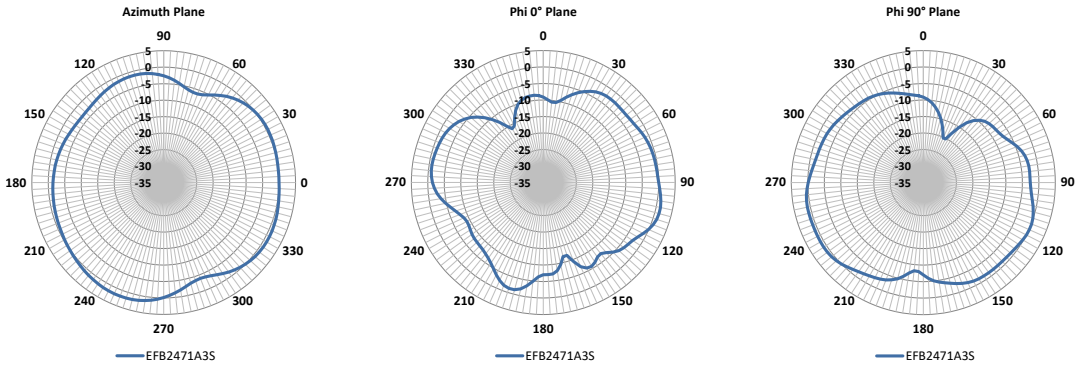
TOTAL EFFICIENCY



	2400	2450	2500	4900	5150	5200	5250	5300	5350	5400	5470	5550	5650	5725	5800	5850	5900	5925	6000	6200	6425	6475	6525	6700	6875	7000	7125
EFB2471A3S	58%	62%	57%	50%	60%	57%	58%	57%	59%	57%	56%	60%	61%	62%	64%	66%	63%	63%	65%	61%	60%	57%	60%	62%	58%	61%	54%

RADIATION PATTERNS

2400 MHz



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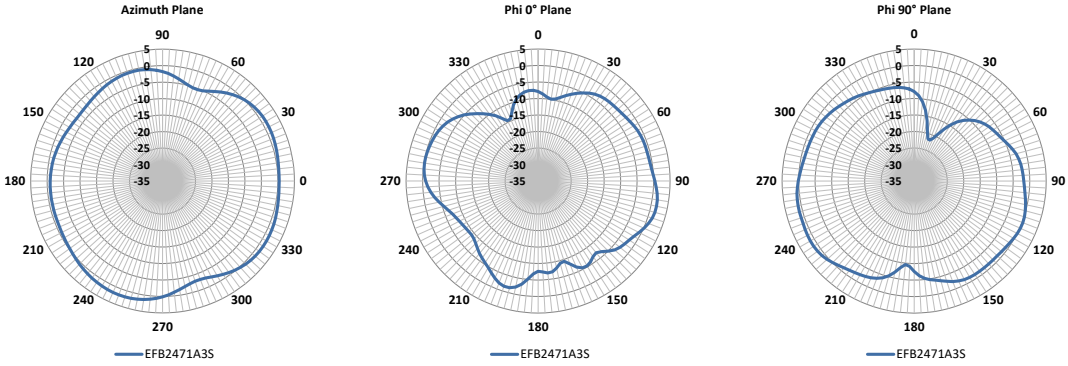
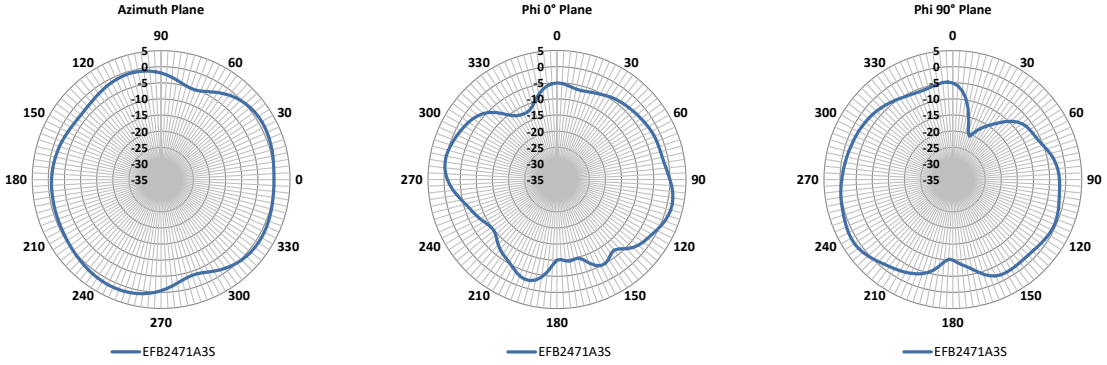
RADIATION PATTERNS

2450 MHz

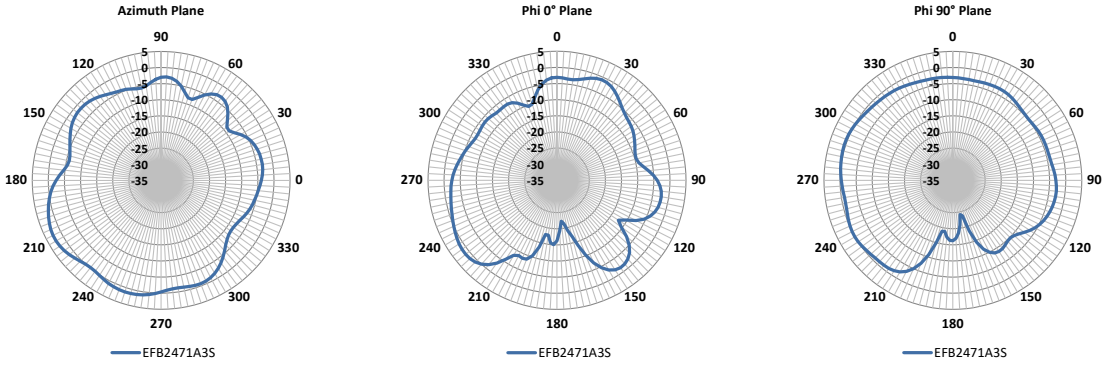


RADIATION PATTERNS

2500 MHz



4900 MHz



5150 MHz

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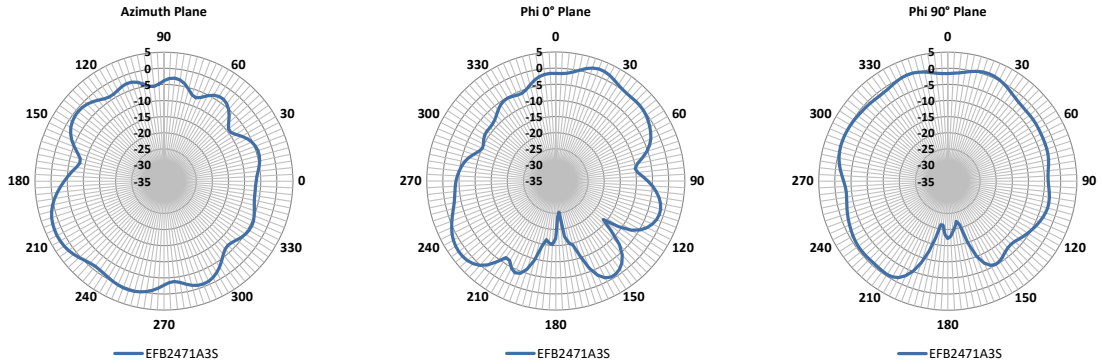
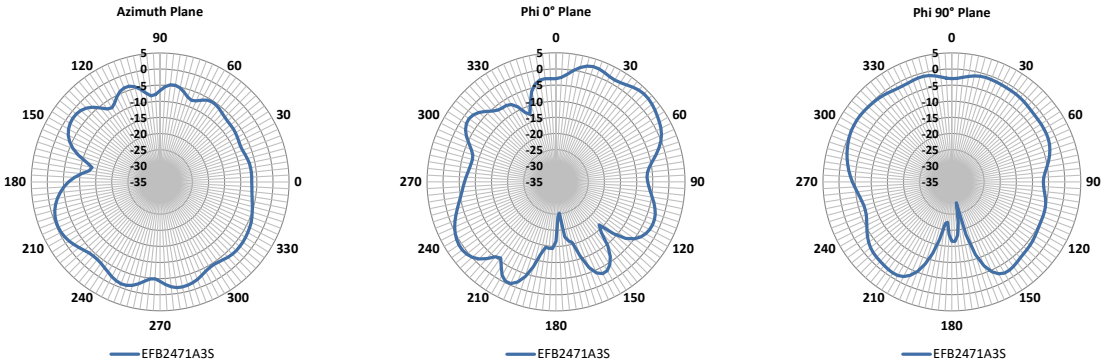
RADIATION PATTERNS

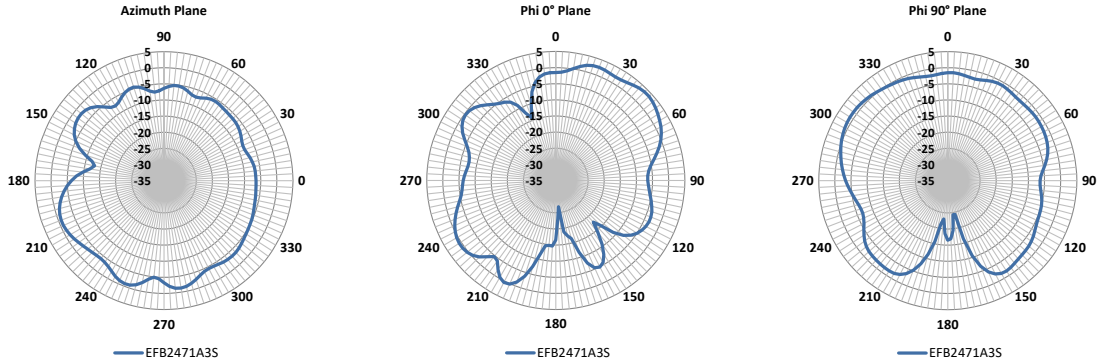


5470 MHz



RADIATION PATTERNS

5500 MHz



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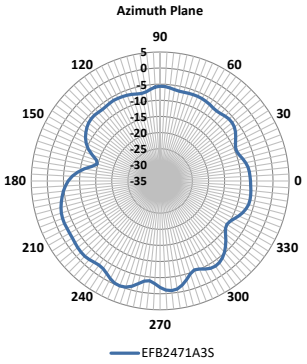
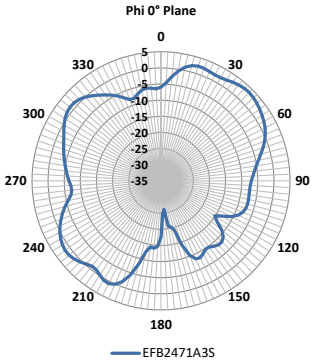
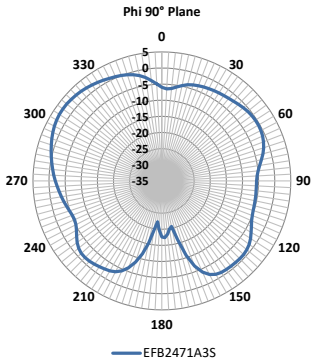
RADIATION PATTERNS

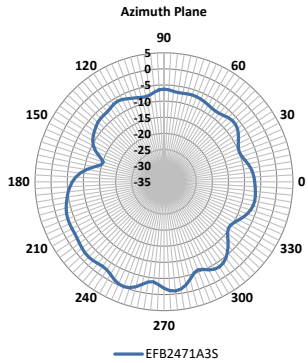
5850 MHz

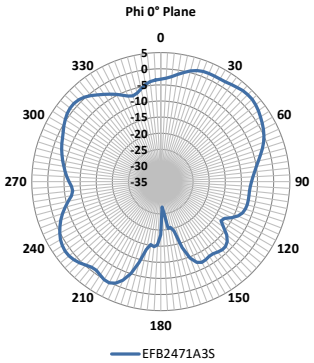


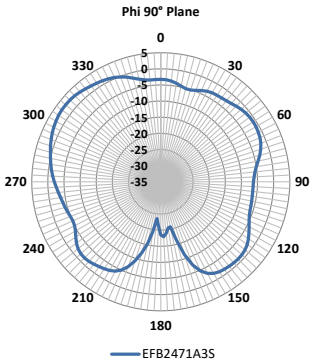




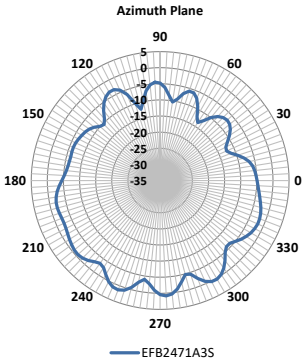
5925 MHz

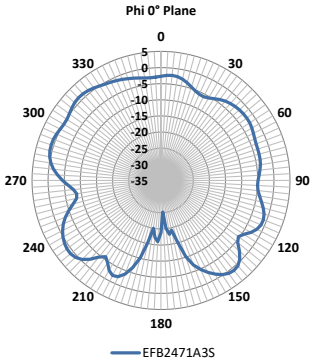


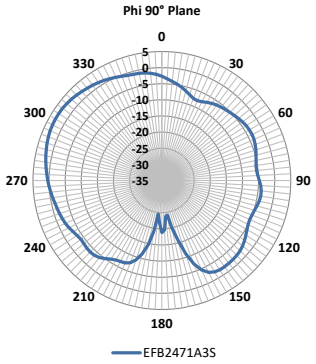




6425 MHz







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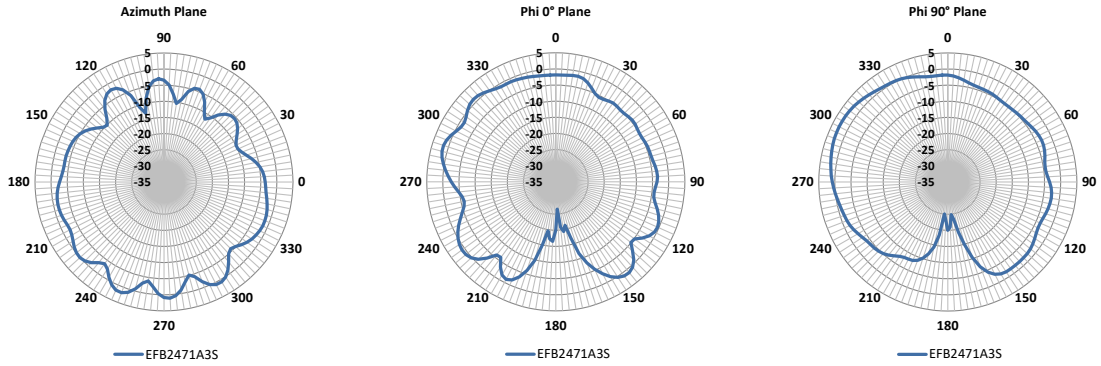
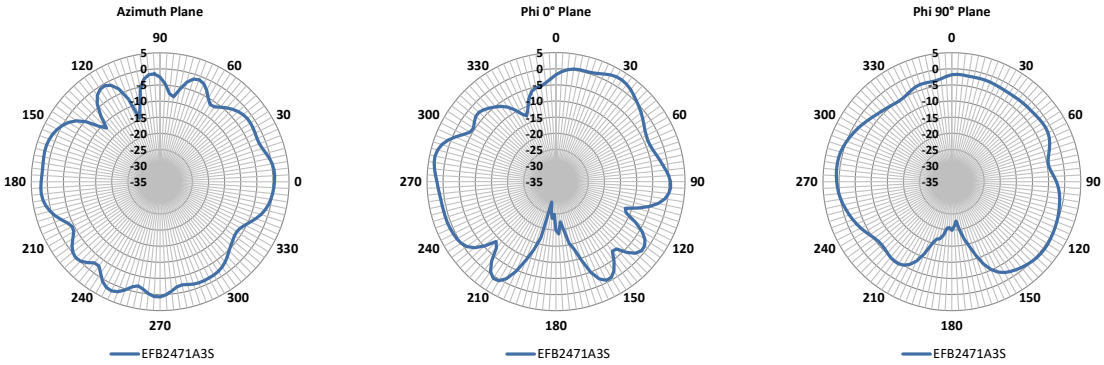
RADIATION PATTERNS

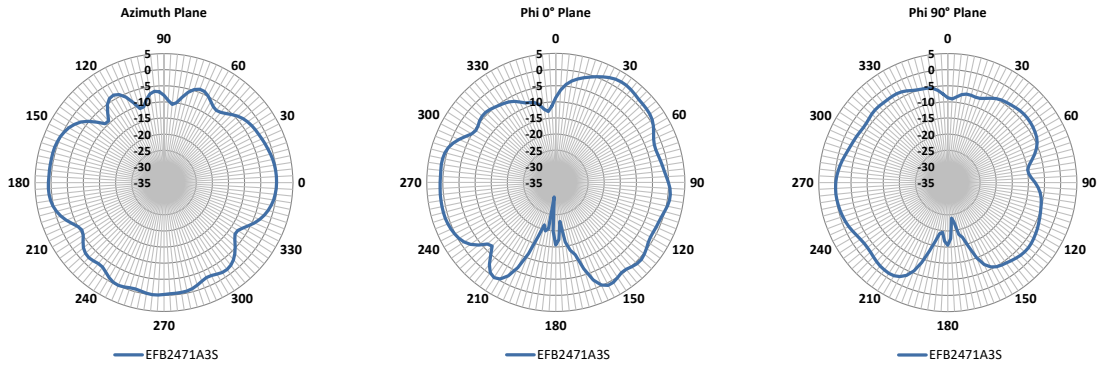
6525 MHz



6875 MHz



7125 MHz



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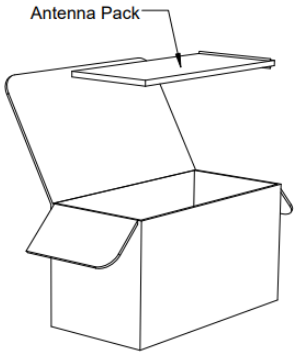
PACKAGING INFORMATION

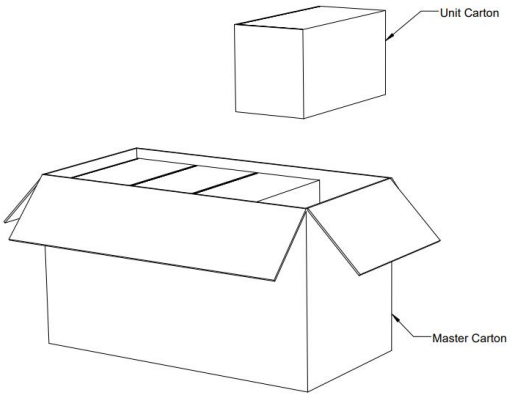
Carton Layout

Unit Carton



- Dimensions: 245 mm x 120 mm x 135 mm
- Weight: 0.22 kg
- Zipper bag 152 mm x 229 mm (10 antennas per bag)
- 20x zipper bags per carton (200 antennas total)

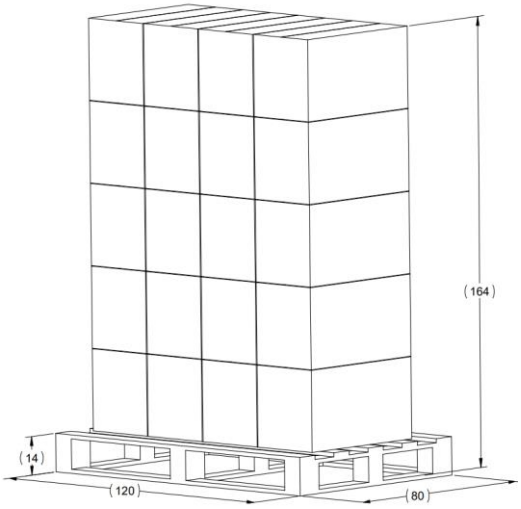
Master Carton



- Dimensions: 520 mm x 260 mm x 295 mm
- Weight: 2.4 kg
- Total of 8-unit cartons per master carton
- Total of 1600 antennas per master carton

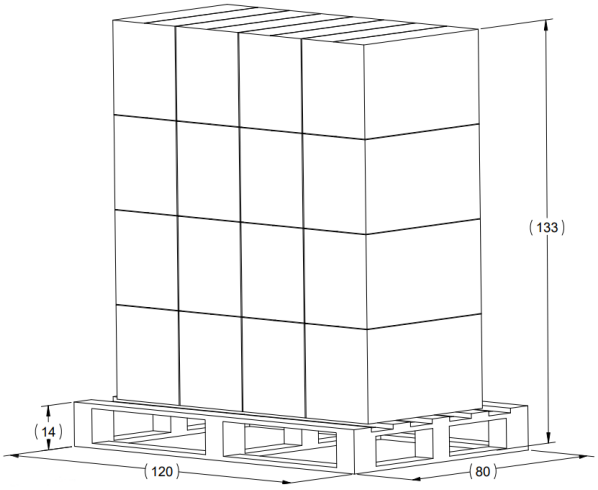
Pallet Layout

Ocean Shipping Pallet



- Pallet base dimensions: 120 cm x 80 cm x 14 cm
- Full loaded dimensions: 120 cm x 80 cm x 164 cm
- 20 master cartons (4 x 5 layout), 60 kg total
- 32000 antennas per pallet

Air Shipping Pallet



- Pallet base dimensions: 120 cm x 80 cm x 14 cm
- Full loaded dimensions: 120 cm x 80 cm x 133 cm
- 16 master cartons (4 x 4 layout), 50.4 kg total
- 25600 antennas per pallet

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