

## GWA-5G-75800

Passive 5G/4G Wideband PCB Antenna  
700- 5800 MHz

### Applications

- 1-Smart Metering
- 2- Wearable & Connected Health Devices
- 3-Payment Terminals
- 4-IoT & Industrial 5G/4G Devices

### General description

The **GWA-5G-75800** is a compact, high-efficiency 5G/4G wideband SMD antenna operating from **700 MHz to 5800 MHz**. Built on low-loss FR-4 PCB material, it delivers significantly higher efficiency than metal, ceramic, or flexible antennas, making it well suited for high-data-rate cellular applications across both low and high frequency bands. The antenna provides effective coverage from **700–960 MHz** and **1427–5800 MHz**, while maintaining a small footprint of just 94 × 14 mm × 0.7 mm. This enables efficient low-frequency operation without excessive PCB area consumption, addressing a key limitation of conventional antenna solutions. Thanks to its high radiation efficiency, overall performance is primarily limited by impedance matching. When optimized with a matching network, typical efficiencies of approximately **50%** in low bands and **70%** in higher bands can be achieved. The design is resistant to detuning and can be easily fine-tuned directly on the host PCB without additional tooling. As a surface-mount antenna, the U.F.L eliminates cables and connectors, reducing losses and improving OTA performance metrics such as TRP and TIS. Supplied on tape and reel, it supports automated assembly and is suitable for compact, carrier-approved 5G/4G and IoT devices.



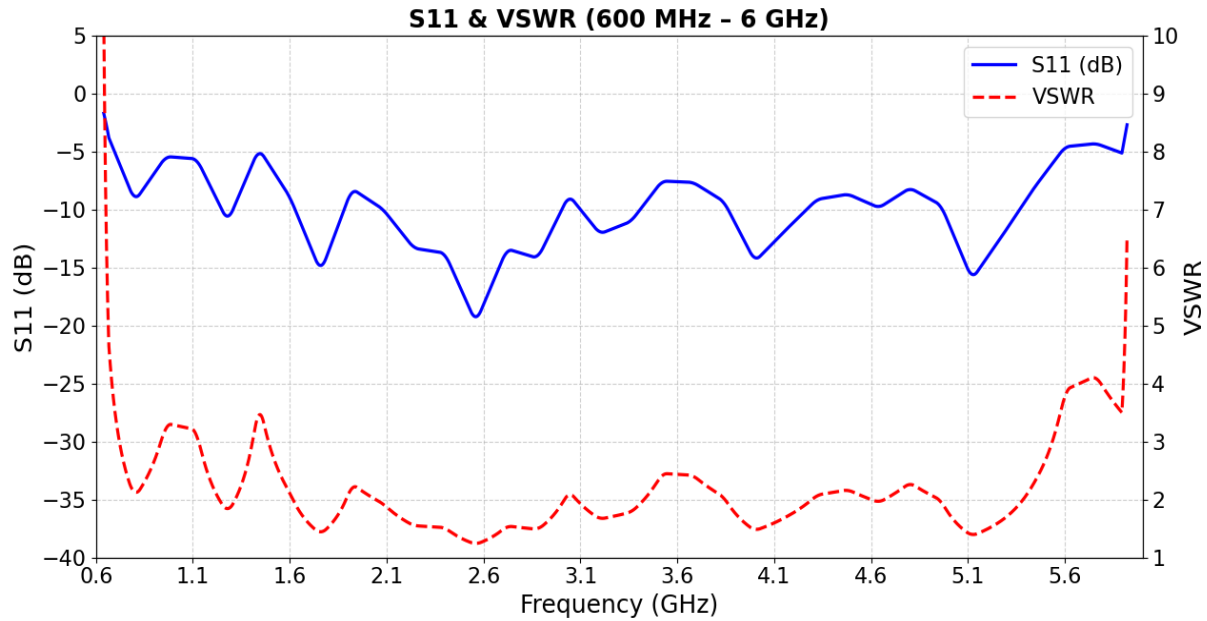
### Electrical Specifications

Frequency Range: 700-5800 MHz  
Impedance: 50Ω  
VSWR: average 2  
Efficiency: 50%-70%  
Passive Gain: +5dBi maximum  
Connector: I-PEX U.F.L

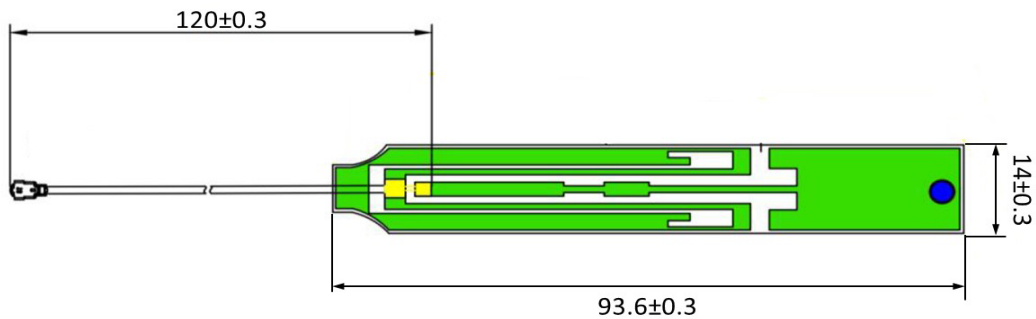
### Mechanical Specifications

Material : FR4  
Operating Temperature: -40°C~+70°C  
Storage Temperature: -55°C~+85°C  
Humidity: 95% RH non-condensing  
Weight : 20 g  
Dimensions: 94mm × 14 mm × 0.7 mm

## S11 & VSWR



## Mechanical Outline



\*All dimensions are in millimeters and for reference only and may be subject to change without notice