



### Key Features

- Extremely flexible radiating element
- WiFi, Bluetooth & ZigBee compatible
- 2.4 to 2.5GHz operating frequency
- Adhesive backing
- Designed for embedded integration

### Additional Considerations

- Radiating element is a flexible printed circuit board design
- Allows for wrapping or bending around objects
- Adhesive backing provides the option to fix the antenna into position
- IPEX connector for internal / embedded designs

### General Description

The Echo 28 is a WiFi / WLAN dedicated Flexible Printed Circuit Board (FPC) antenna that achieves impressive levels of performance, owed to fine tuning between 2.4 and 2.5GHz. Tuned to this frequency band means the Echo 28 antenna can be used with WiFi, Bluetooth, Zigbee and ISM based applications. Its unique FPC design means the Echo 28 is capable of very flexible mounting positions and orientations, such as the bending around objects. This provides a unique way of WiFi antenna integration that the standard rigid PCB antenna designs cannot match. With a small footprint size of 31 x 28.5 x 0.1mm, the Echo 28 is incredibly thin that helps further improve this antennas embedded capabilities. The Echo 28 is perfect for applications where internal space for components is limited or when using an external antenna is simply not appropriate. Furthermore, this WiFi FPC antenna is supplied with an adhesive strip on its base side to securely fix it into position. Common applications for the Echo 28 include: waterproof / water tight designs, low power Zigbee, portable WiFi solutions and general 2.4GHz applications that require a compact invention.

The Echo 28 is a WiFi tuned antenna, designed to resonate to a high level between 2.4 and 2.5GHz and managing a peak gain of 2.0dBi.

The Echo 28 is supplied, as standard, with a 500mm 1.13mm coax cable, terminated with an IPEX connector. This is the 'off-the-shelf' option that can be supplied within days, designed for prototype / evaluation purposes. Volume / production requirements might benefit from custom cable lengths.

*Custom cable lengths and alternative connector types can be supplied for volume requirements.*

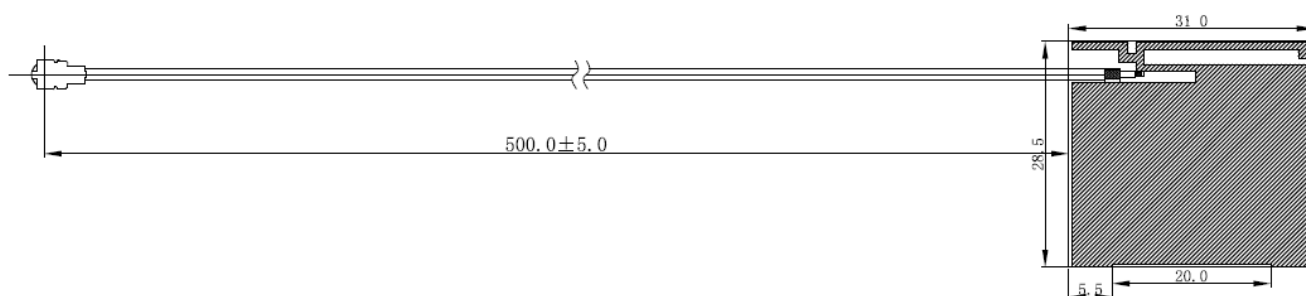
Rev 1.0

### Key Specifications - Electrical

Operating temperature:	-10 to +60°C
Storage temperature:	-10 to +70°C
Impedance:	50Ω nominal
Gain:	2.0dBi (excluding cable loss)
Cable loss:	1.7dB max
VSWR:	1.91:2:1 max
Radiation:	Omni-directional
Polarization:	Linear / vertical

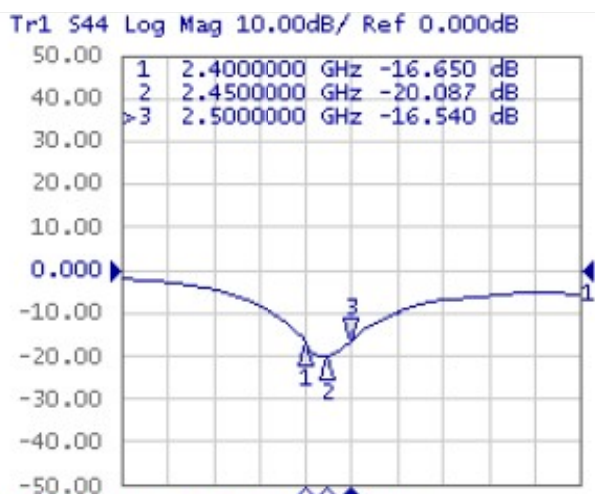
### Key Specifications - Mechanical

Dimensions:	31 x 28.5 x 0.1mm
Cable:	500mm 1.13mm coax
Connector:	IPEX
Mounting method:	Embedded

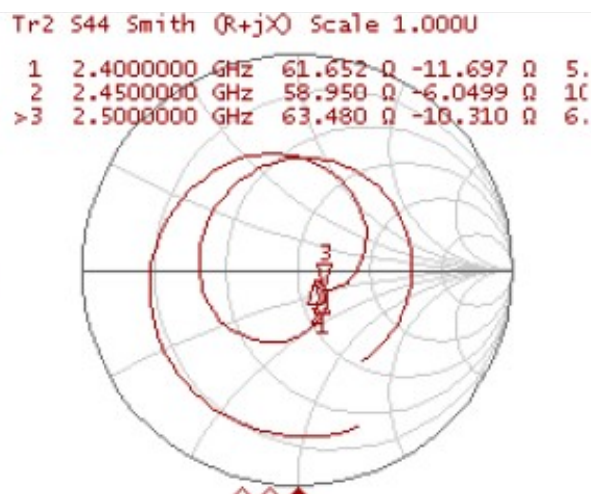


### Test Reports

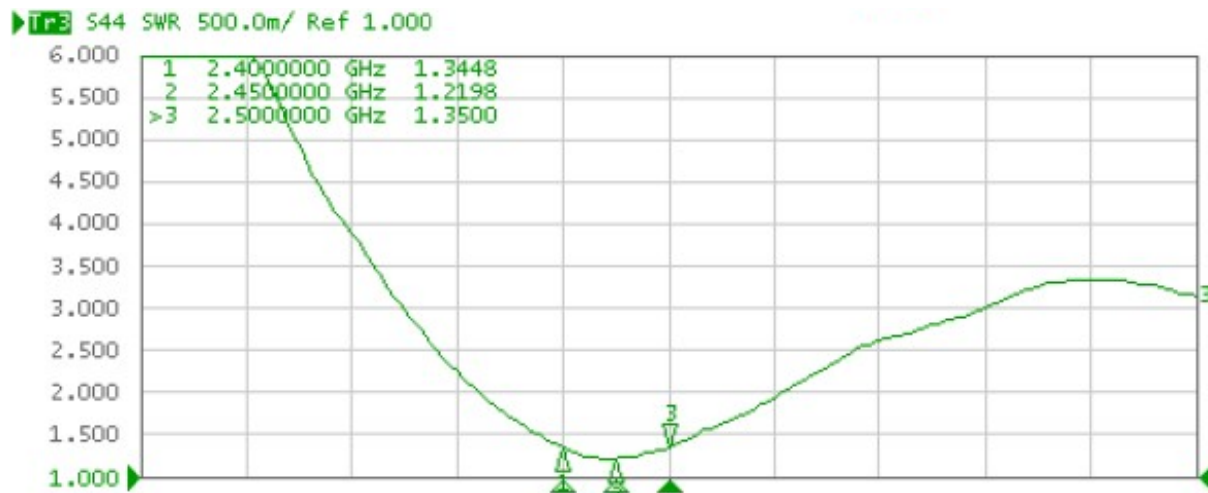
#### Return Loss



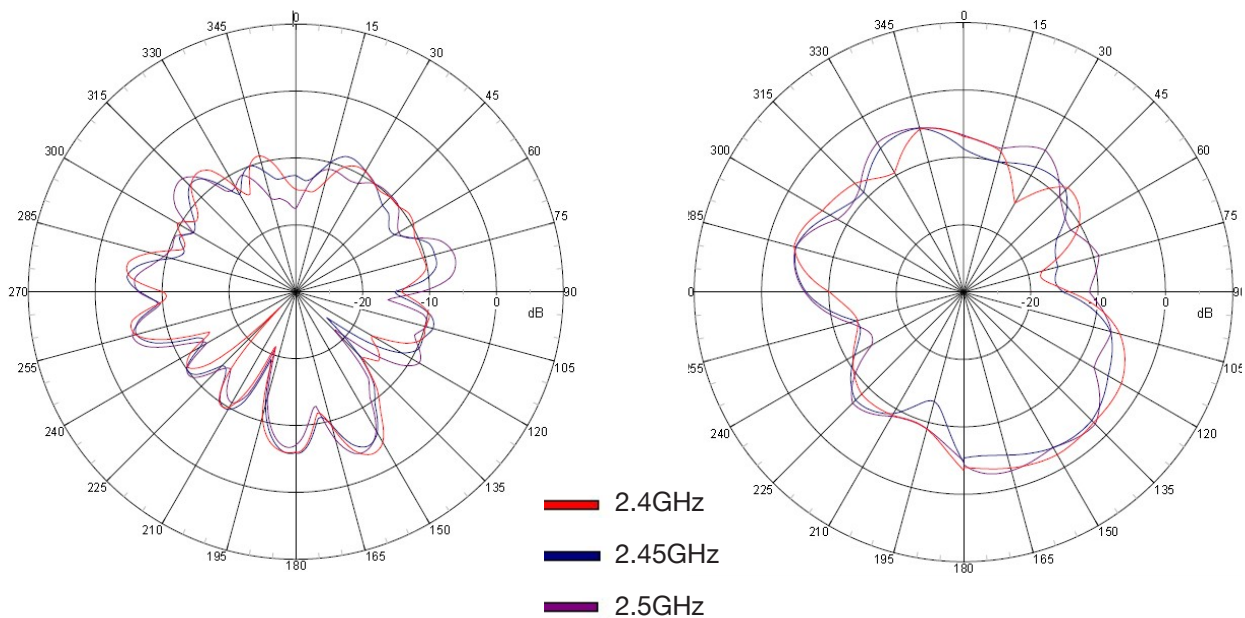
#### Impedance Plot



#### VSWR



#### Radiation Patterns



#### Ordering Details:

Part number	Description
ECHO28/0.5M/IPEX/S/S/14	WiFi FPC Design Antenna, 500mm 1.13mm Coax Cable, IPEX Connector