

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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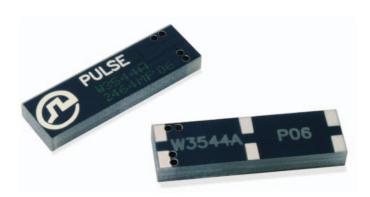






Pulse Part Number W3544A / 3544B





Pulse introduces the small hybrid surface mount pick-and-place W3544X family of GSM/3G antennas. Board connection is via 6 SMD connection points underneath the antenna. Antennas are delivered in tape and reel packaging for use in automatic SMD pick-and-place. Each antenna measures 7.65 x 26 x 3 mm and requires ground clearance on the PCB. The W3544A is optimized for a corner board location while the W3544B is for use at the end of a narrow PCB. Frequency bands are 824-960 and 1710-2170 MHz with a target of minimum 50% efficiency in all bands offering a compact high performance solution for GSM/3G applications

#### **Features**

- Frequency bands 824-960 and 1710-2170 MHz
- SMD solution
- Compact antenna size of 7.65 x 26 x 3 mm
- RoHS Compliant Product

#### **Applications**

- GSM/3G routers
- Femto Cell modems
- Industrial wireless machine to machine
- Smart Grid devices
- Mobile Hotspots

Part Number	Positioning
W3544A	Vertically mounted at board edge
W3544B	Horizontally mounted at board edge

Pulse Part Number W3544A / 3544B

### **Electrical Specifications**

		W3544A	W3544B
Frequency 1 [MHz]		824 - 960	824 - 960
Frequency 2 [MHz]		1710 - 1880	1710 - 1880
Frequency 3 [MHz]		1850 - 1990	1850 - 1990
	Frequency 4 [MHz]	1920 - 2170	1920 - 2170
No	minal Impedance [ $\Omega$ ]	50	50
Gain	Freq 1 [dBi avg]	-1.9 65%	-1.5 70%
	Freq 2 [dBi avg]	-1.3 74%	-1.1 77%
Ğ	Freq 3 [dBi avg]	-1.3 74%	-1.1 77%
	Freq 4 [dBi avg]	-1.66 68%	-1.5 71%
Return Loss	Frequency 1 [dB]	-4.1	-6.5
	Frequency 2 [dB]	-4.6	-5.7
	Frequency 3 [dB]	-16.3	-18.5
, a	Frequency 4 [dB]	-12.3	-13

#### Note:

**Gain**: Frequency detail above is all peak and given in dBi first, then efficiency.

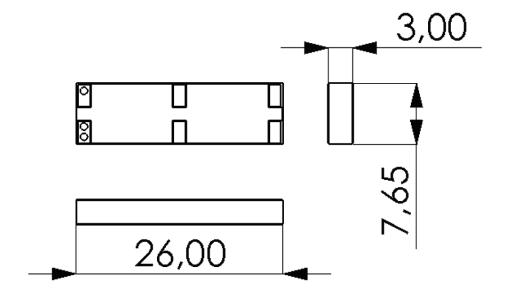
### **Environmental Specifications**

Operating Temperature [°C]	-45 to +85
Storage Temperature [°C]	-45 to +85

### **Mechanical Specifications**

Weight [oz/g]	.04 / 1.11
Dimensions [Inches/mm]	.38 x 1.02 x .12 / 9.65 x 26 x 3
Mounting	SMD

### Antenna Dimensions





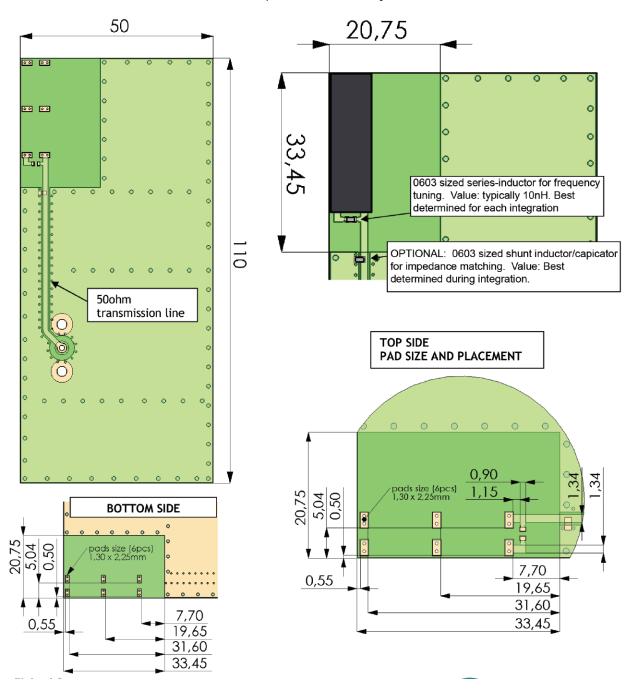
Pulse Part Number W3544A / 3544B

### Test Setup for Electrical Measurements

Recommended test board layout for electrical characteristic measurement. Test board outline size  $110 \text{ mm} \times 50 \text{ mm}$ . Ground cleared under antenna.

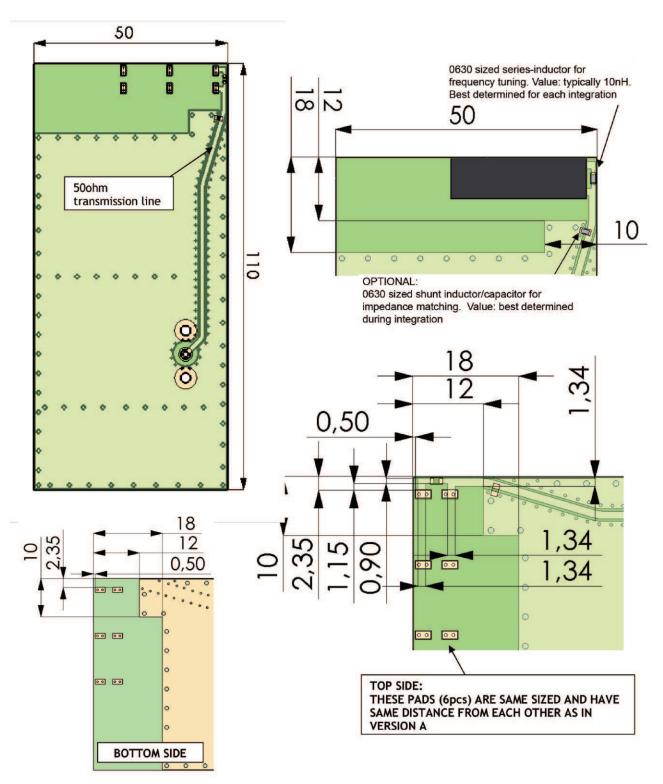
NOTE: All measurements are in mm.

W3544A - Antenna positioned vertically on PWB corner



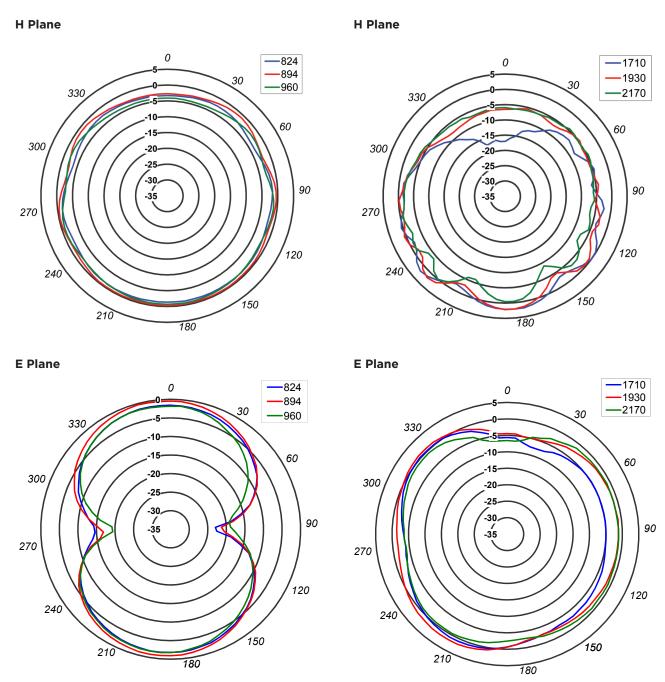
Pulse Part Number W3544A / 3544B

W3544B - Antenna positioned horizontally on PWB corner



Pulse Part Number W3544A / 3544B

#### **Radiation Patterns**



#### For More Information

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