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# 850 MHz RX Diversity Helical SMD Antenna

Ground cleared under antenna, clearance area 6.00 x 11.00 mm. Pulse Part Number: W3118A



## Features

- Vertical mount on board
- Compact size W x L x H (2.5 x 8 x 8 mm)
- Low weight (390 mg)
- Lead Free materials
- Fully SMD compatible
- Glue needed between antenna and PWB
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product

## Applications

- GSM 850 Band
- 869-894 MHz

*Engineering samples available*

## Electrical specifications @ +25 °C

*Note: Electrical characteristics depend on test board (GP) size*

*and antenna positioning on GP and Ground Clearance area size.*

## ISM 900MHz

Typical performance (testboard size 100 x 40 mm, PWB ground clearance area 8.00 x 40.00 mm)

| Frequency Range [MHz] | Linear Max Gain [dBi]         | Efficiency [%] / [dB]                      | Return Loss min. [dB] | Impedance [ $\Omega$ ] | Operating Temperature [°C] |
|-----------------------|-------------------------------|--|-----------------------|------------------------|----------------------------|
| 869 – 894             | 0 (peak)<br>-1.4 (band edges) | 52 / -2.9 (peak)<br>38 / -4.2 (band edges) | -9                    | 50                     | -40 to +85                 |

## Pulse Finland Oy

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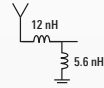
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## Typical Electrical Characteristics (T=25 °C)

Measured on the 100 x 40 mm test board with matching circuit

Typical Return Loss S11/ impedance



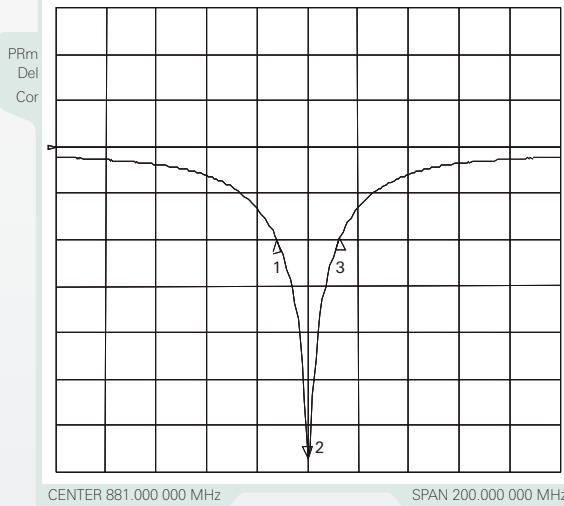
### RX Diversity

4 Oct 2006 09:39:39

CH1Markers

- 1. -10.092 dB 869.000 MHz
- 2. -33.592 dB 881.000 MHz
- 3. -9.8007 dB 894.000 MHz

CH1 S11 LOG 5 dB/REF 0 dB



### RX Diversity

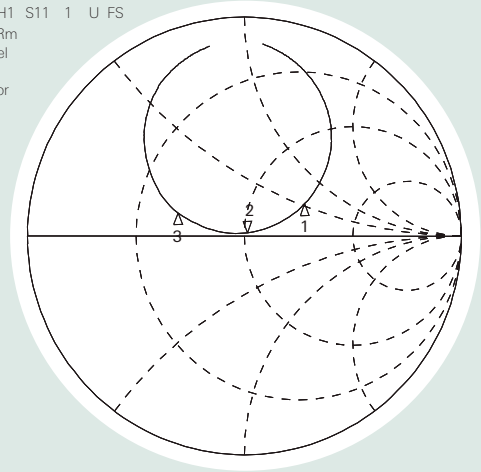
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CH1Markers

- 1. 83.031 Ω 27.129 Ω 869.000 MHz
- 2. 51.447 Ω 1.4590 Ω 881.000 MHz
- 3. 26.118 Ω -6.1191 Ω 894.000 MHz

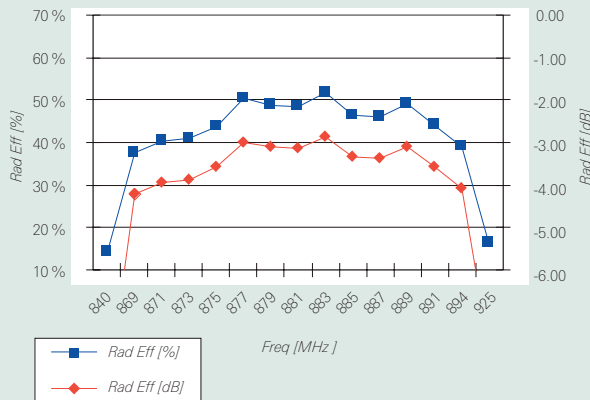
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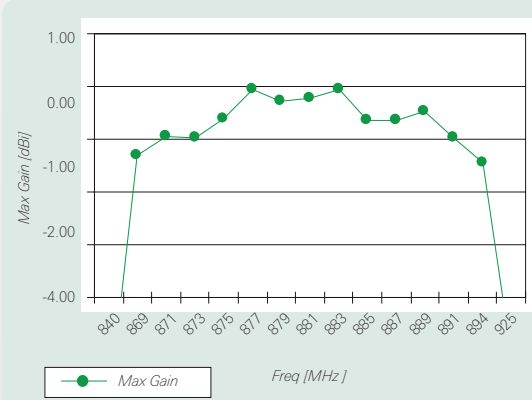


Free space efficiency and maximum gain

### RX Diversity 869-894 MHz



### RX Diversity 869-894 MHz



Pulse Finland Oy

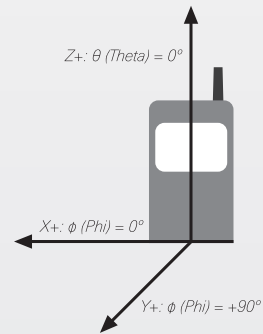
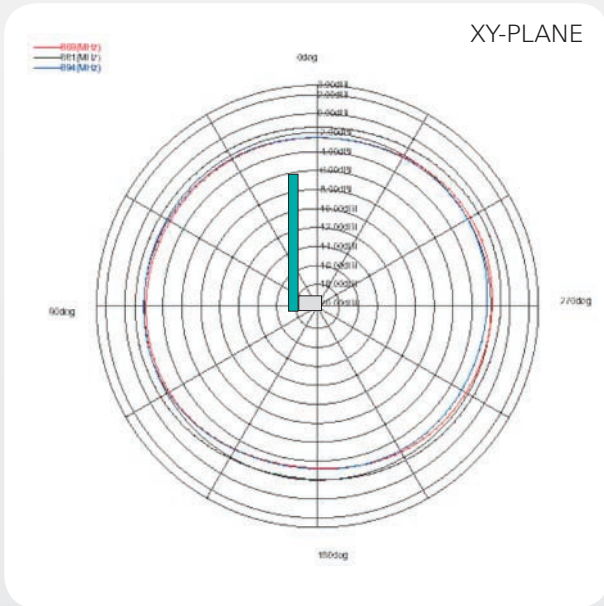
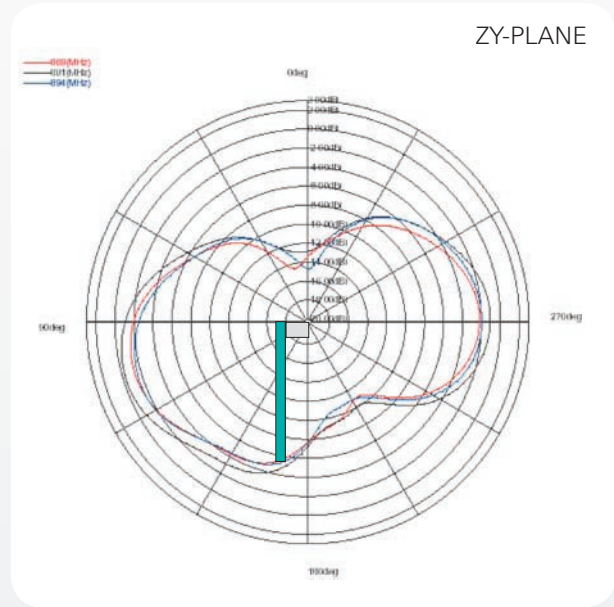
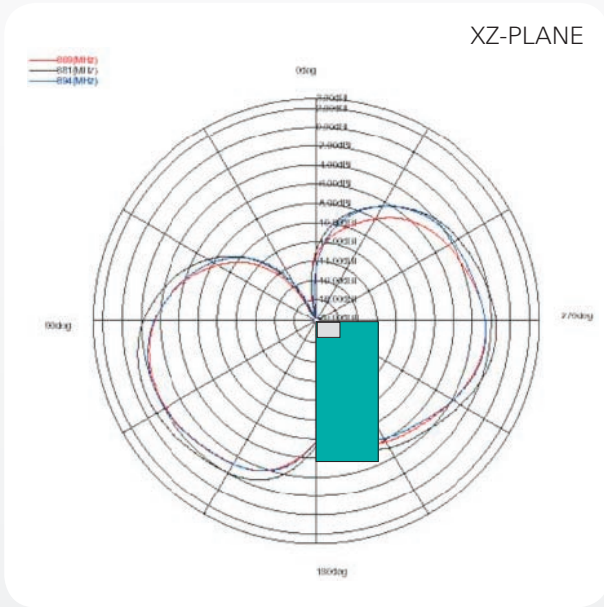
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## Typical Free space Radiation Patterns



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