

Penta Band Stubby Antenna

Pulse Part Numbers: W1910 / W1911



Features

- Small form factor
- Antenna size W x H (10.4 x 49.0mm)
- Lead free materials
- RoHS Compliant Product
- Connector Type: SMA

Applications

- Penta band EU/US GSM/WCDMA
- Frequency range: 850 / 900 / 1800 / 1900/ 2100 MHz
- M2M Applications

Part Numbers:

| P/N | Connector |
|-------|--------------|
| W1910 | SMA(Male) |
| W1911 | RP-SMA(Male) |

Electrical specifications @ +25 °C

Note: Electrical characteristics depend on device mechanics.

W1910&W1911 Typical free space performance, measured in test unit mechanics (position 1.)

| Frequency [MHz] | Max Gain [dBi] | Efficiency [%] / [dB] | Return loss min. [dB] | Impedance [Ω] | Operating Temperature [°C] |
|-----------------|--------------------------|-------------------------------------|-----------------------|------------------------|----------------------------|
| 824 - 960 | 1.0 (peak) -0.5 (min) | 65 / -1.8 (peak) 50 / -3.0 (min) | -4 | 50 | -40 to +85 |
| 1710 - 1990 | 2.0 (peak) 0.5 (min) | 65 / -1.8 (peak) 50 / -3.0 (min) | -6 | | |
| 1920 - 2170 | 2.5 (peak) 2.0 (min) | 65 / -1.8 (peak) 50 / -3.0 (min) | -6 | | |

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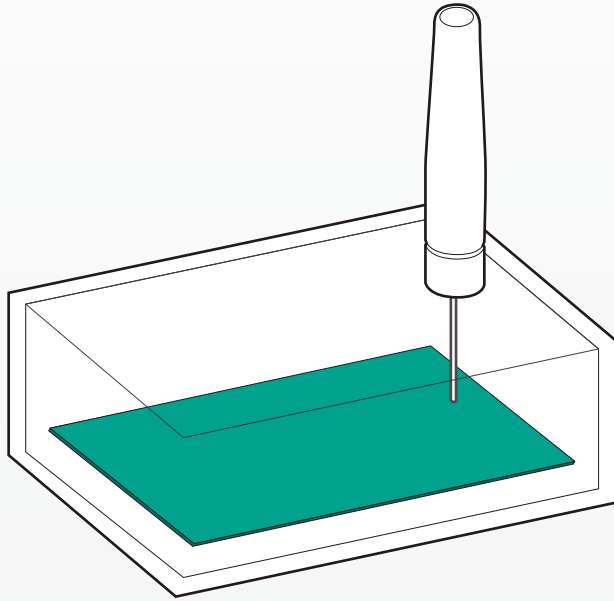
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Test Unit and Antenna Mounting Position 1



Ground Plane Size: 70mm(L) x 50mm(W) x 1mm(T)

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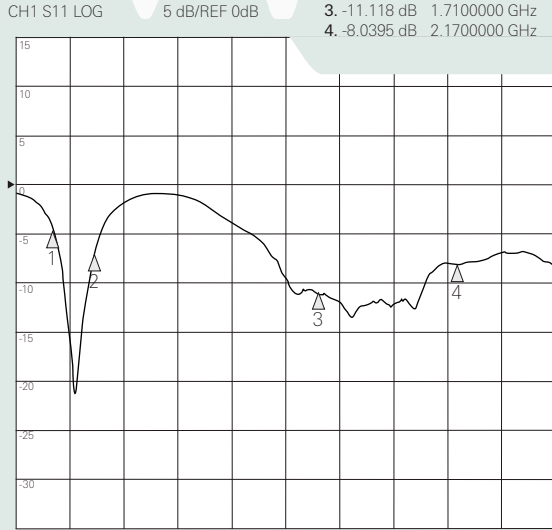
Typical Electrical Characteristics (T=25 °C)

Typical free space performance, measured in test unit mechanics with 150mm feed cable (position 1.)

W1910, W1911

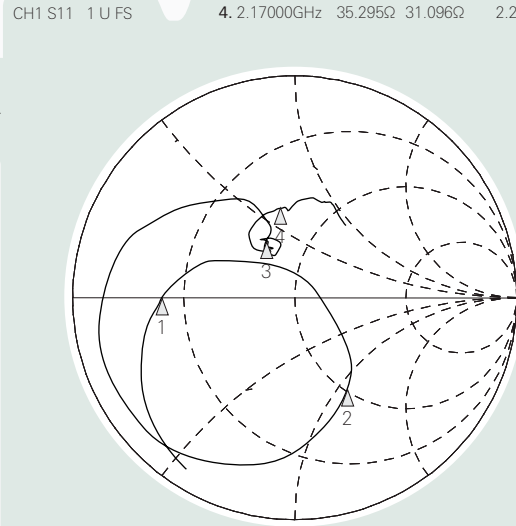
CH1 Markers

| | | |
|----|------------|---------------|
| 1. | -4.5578 dB | 824.00000 MHz |
| 2. | -6.9178 dB | 960.00000 MHz |
| 3. | -11.118 dB | 1.7100000 GHz |
| 4. | -8.0395 dB | 2.1700000 GHz |



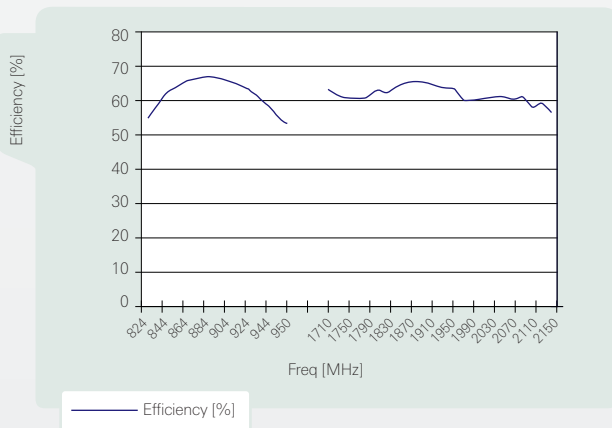
W1910, W1911

| | | | | |
|----|------------|---------|-----------|----------|
| 1. | 824.000MHz | 12.600Ω | -313.13mΩ | 616.83pF |
| 2. | 960.000MHz | 51.934Ω | -54.344Ω | 3.0507pF |
| 3. | 1.71000GHz | 34.219Ω | 19.439Ω | 1.8093nH |
| 4. | 2.17000GHz | 35.295Ω | 31.096Ω | 2.2807nH |

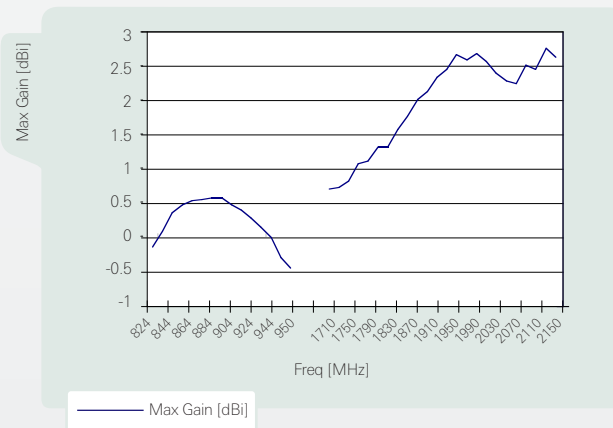


Free Space Efficiency and Maximum Gain

W1910 Efficiency



W1910 Max Gain



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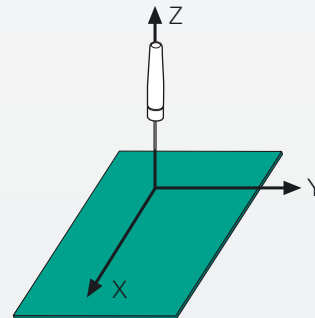
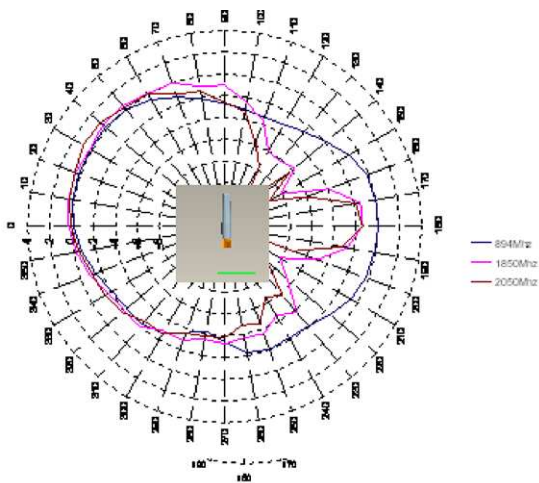
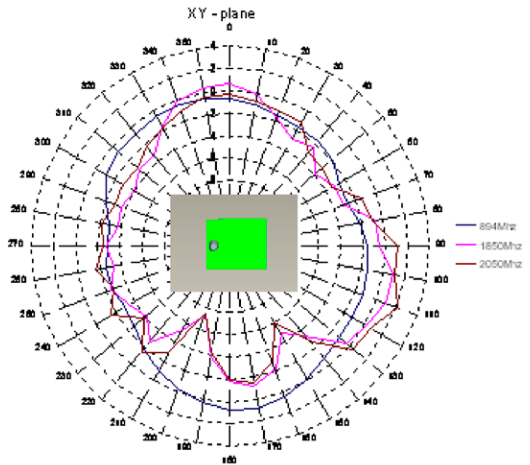
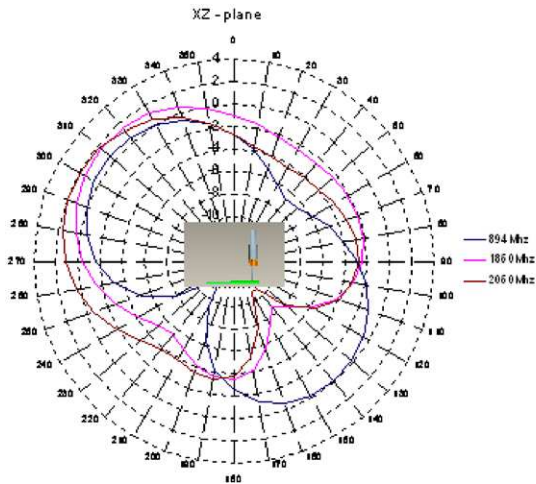


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Typical Free space Radiation Patterns

Patterns measured in test unit mechanics (position1.)



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