

Active GPS Antenna

(30 x 50 x 5.45 mm)

Part Numbers and Connector Types

W4000D197	MMCX male straight, 5m cable
W4000G197	SMA male straight, 5m cable
W4000J197	MCX male straight, 5m cable
W4000L197	FME male straight, 5m cable
W4000G118	SMA male straight, 3m cable
W4000G059	SMA male straight, 1.5m cable

Electrical Specifications

Frequency [MHz]	1575.42
Nominal Impedance [Ω]	50
VSWR Max	1.5:1
Element Max Gain [dBi]	1.5
LNA Gain [dB]	26 \pm 2
Radiation Pattern	Omni-directional
Voltage [V]	Dc 3-5 (\pm 10%)
Current [mA]	12 typ
Cable Type	Rg-174
Length [m]	5, 3 and 1.5
Noise Figure [dB]	1 Max
Band Attenuation [dB]	20 min @ Fo \pm 50 MHz



Mechanical Specifications

Plastic radome	PC-ABS plastic blend
Color	Black
Height [mm]	5.45
Width [mm]	30 x 50
Mounting	Die cut double-sided tape included

Environmental Specifications

Operating temperature [°C]	-40 to +85
Storage temperature [°C]	-40 to +85
Relative humidity [%]	20 to 95
Vibration [Hz]	10-200, 3G 15 minutes, all axis
Thermal shock [°C]	-40 to +85, 50 cycles
Application	Inside vehicle antenna

Pulse Finland Oy

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Fax: +358 207 935 501

www.pulseeng.com/antennas



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Typical Response

Without cable losses

S21

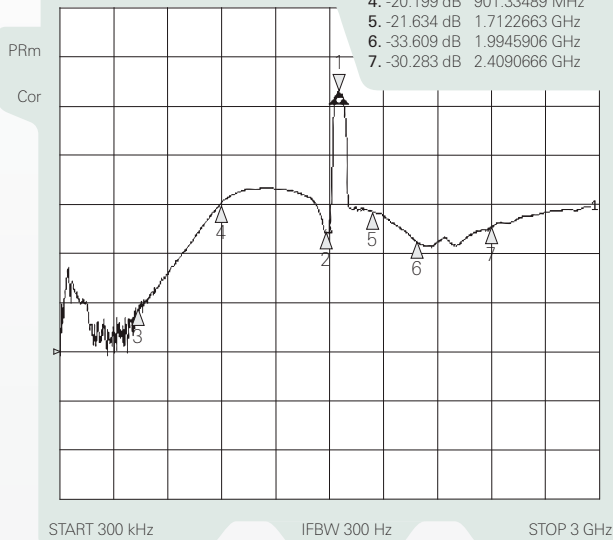
16 Apr 2009 19:00

Tr1 Log Mag

20 dB/REF -80 dB

CH1Markers

- | | | |
|----|------------|---------------|
| 1. | 26.368 dB | 1.5754200 GHz |
| 2. | -25.829 dB | 1.5140386 GHz |
| 3. | -66.265 dB | 432.79675 MHz |
| 4. | -20.199 dB | 901.33489 MHz |
| 5. | -21.634 dB | 1.7122663 GHz |
| 6. | -33.609 dB | 1.9945906 GHz |
| 7. | -30.283 dB | 2.4090666 GHz |



S22

16 Apr 2009 19:05

Tr1 Log Mag

20 dB/REF -80 dB

CH1Markers

- | | | |
|----|------------|---------------|
| 1. | -11.567 dB | 1.5754200 GHz |
| 2. | -23.789 dB | 1.5701459 GHz |

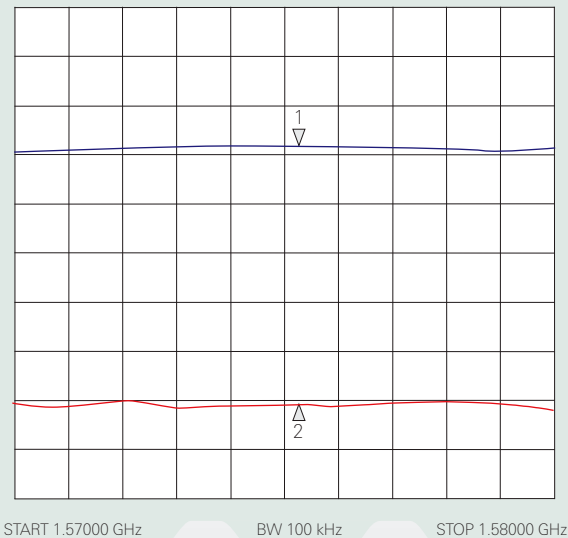


Noise figure

16 Apr 2009 20:29:03

CH1Markers

- | | | |
|----|-----------|------------|
| 1. | 25.932 dB | 1.5754 GHz |
| 2. | 0.887 dB | 1.5754 GHz |



— GAIN Scale / 5.000 dB — NFIG Scale / 1.000 dB

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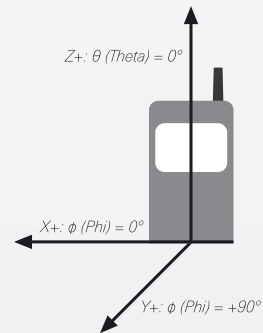
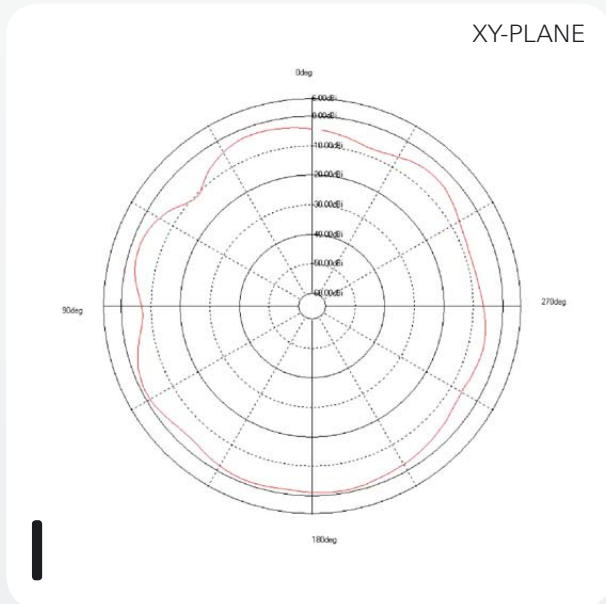
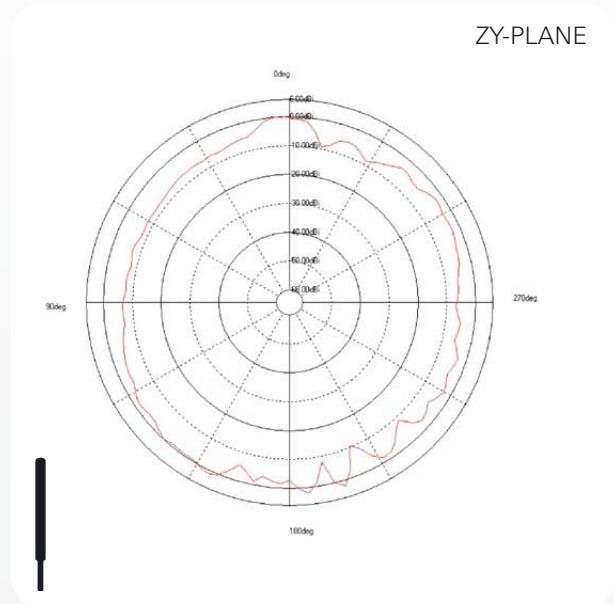
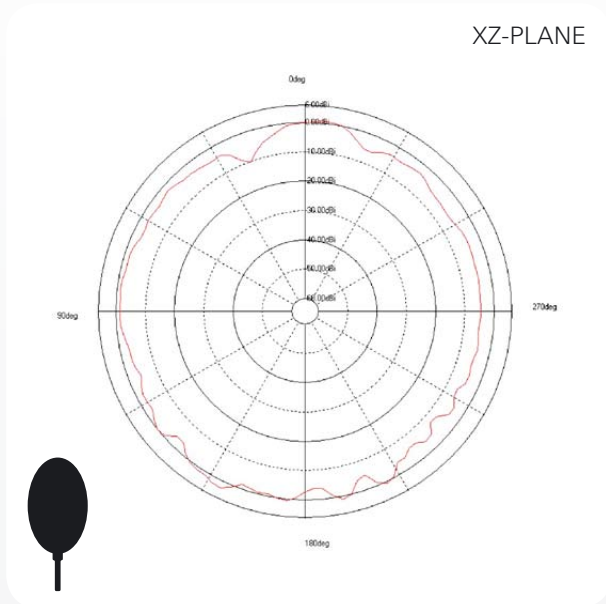
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Typical Free Space Radiation Patterns



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