APPLIED WIRELESS ID

ANT-915CPS-A

Rev.1.0 08/26/2006

Fig.1. Picture of the Circularly Polarized (RHCP) Patch Antenna

1. Specifications

1.1. Nominal frequency range from 900MHz to 930MHz

1.2. Max Gain = +5.70dBi
Min Gain = + 4.80dBi

1.3. The average Gain is +5.25dBi.

1.4. Circular polarized antenna - Polarization RHCP

1.5. Axial ratio at boresight direction is less than 1.0dB (less than measurement tolerance).

1.6.-3dB beam width, horizontal 63 degree;
-3dB beam width, vertical 63 degree;

1.7. Front to back ratio 14dB;

1.8. Input impedance 50 Ohm

1.9. Connector: Reverse Polarity TNC 50 Ohm.

1.10. VSWR less than 1.12 over frequency range 900–930 MHz

1.11. VSWR degradation in proximity 12” (0.3m) to the flat metal surface
VSWRmax=1.18 over frequency range 900–930 MHz

1.12. Maximum input power 5W.

1.13. Dimension 10"x10"x1.45" (260mm x 260mm x 37mm) without connector.

1.14. Weight: 1.0 and 1/16 lbs (0.482kg).

1.15. This antenna may be used for European frequency band 865 – 870 MHz and Japan 952 -954 MHz with some degradation of the gain and axial ratio.
VSWR less than 1.18 over frequency range 865 – 955 MHz

Fig.2. Back view of the Circularly Polarized Patch Antenna

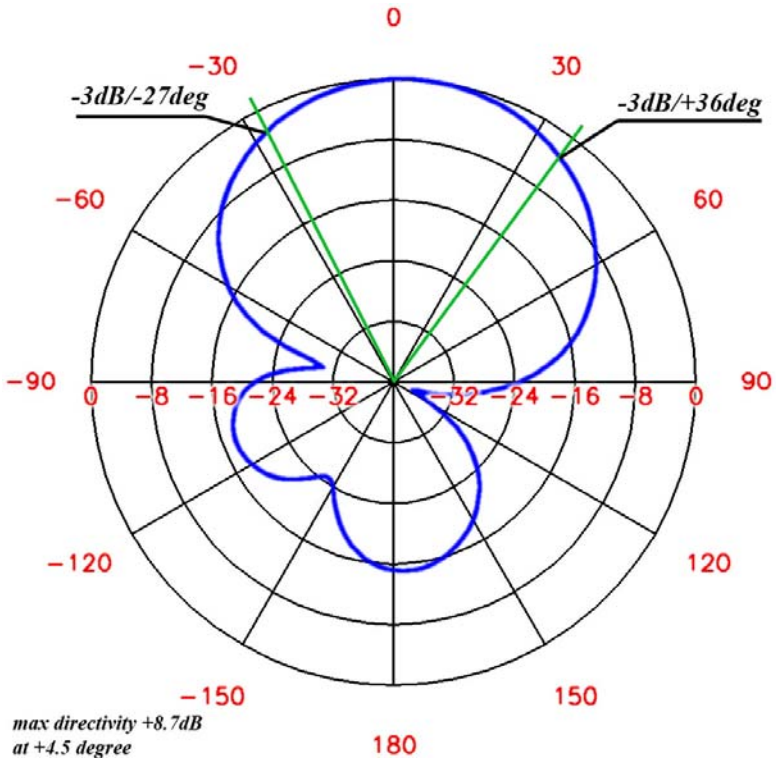

Fig.3. Normalized Logarithmic Directivity E_{teta}, $\theta=0^o \ldots \pm 180^o$, $\Phi=0^o$.(Polar diagram)

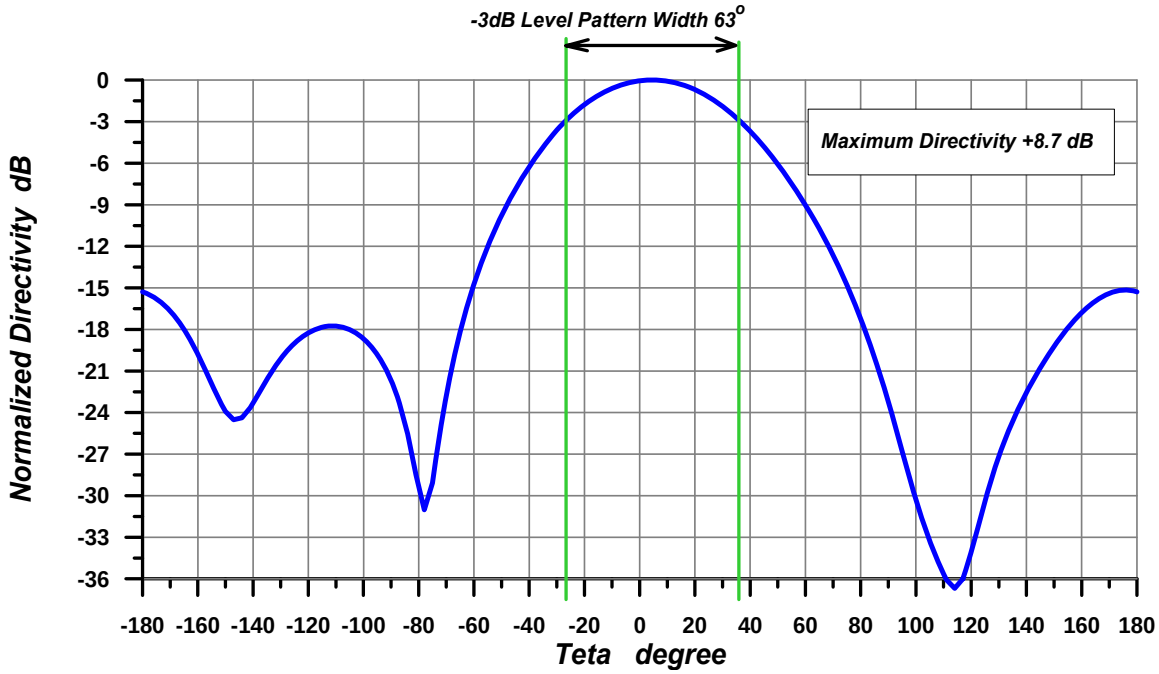

Fig.4. Normalized Directivity E_{teta}, $\Phi=0^o$

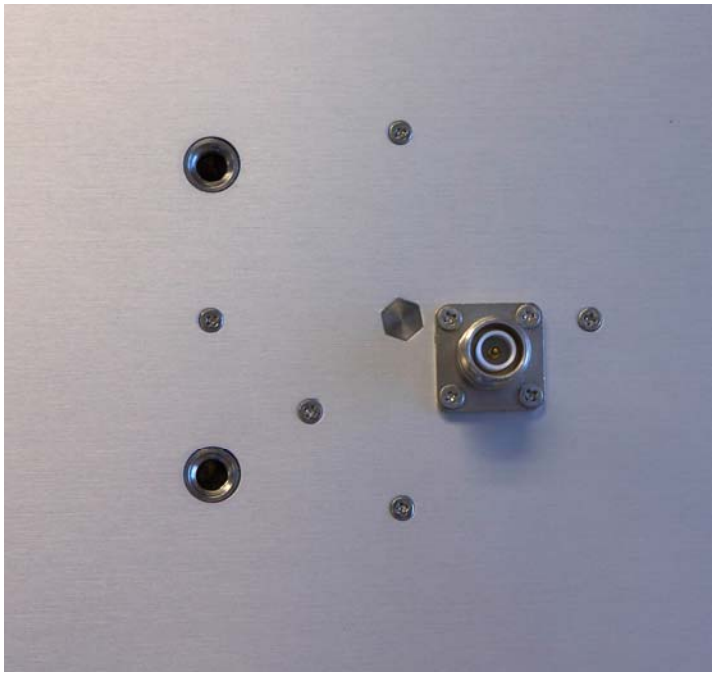

Fig.5. Antenna Mounting

On the backside of the antenna, there are two mounting holes:

Thread ¼”-20 – diameter - ¼”; threads per inch - 20.
Depth – 3/8”.
Distance between holes – L1=1.97” (50mm).