800/1900 MHz Dual Frequency Antenna for AMPS and PCS Wireless Applications

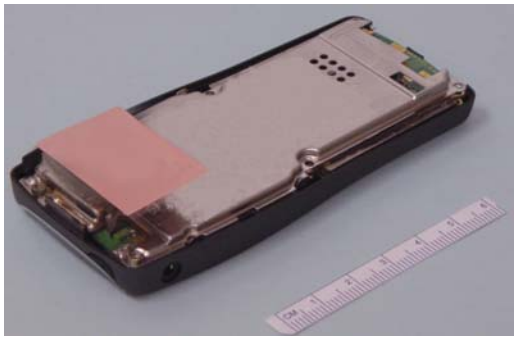


Photo taken in a test configuration

Features

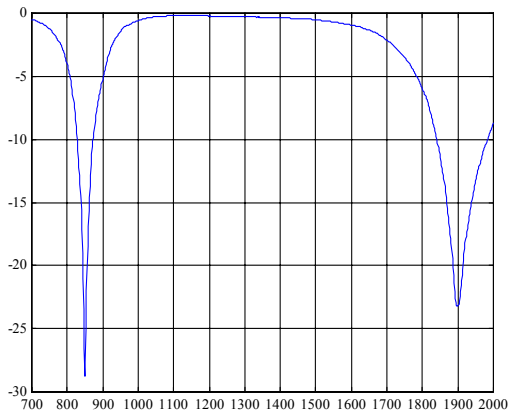
- *Very Efficient MLA Technology*
- *AMPS and PCS Bands*
- *Peak Gain + 4.1 dBi at 1900 MHz*
- *Peak Gain + 1.0 dBi at 850 MHz*
- *Low Profile for Embedded Applications*

This 800/1900 MHz antenna is designed using SkyCross' patented MLA technology, providing superior efficiency and gain directivity in a small package. This antenna is the best performance solution for developers implementing a dual frequency wireless system in the AMPS and PCS bands.

Electrical Specifications

Frequency Range	**824—894 MHz** **1850—1990 MHz**
Gain	**+ 1.0 dBi at 850 MHz** **+ 4.1 dBi at 1900 MHz**
VSWR	**3.0:1 AMPS** **2.0:1 PCS**
Polarization	**Linear**
Azimuth Pattern	**Omni-directional**
Feed Impedance	**50 Ohms Unbalanced**

Typical Return Loss

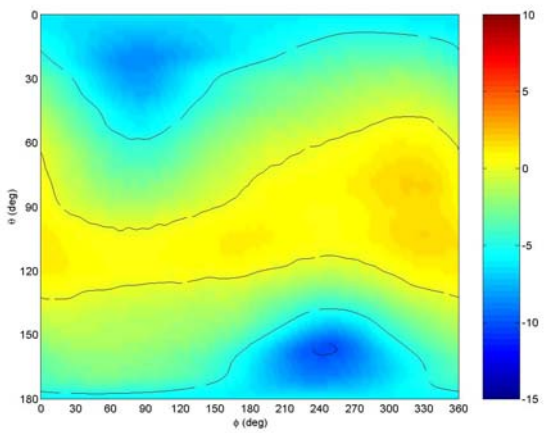


Mechanical Specifications †

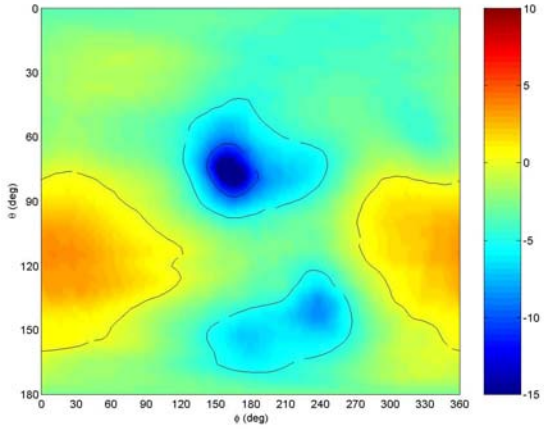
Size	**.86 x 1.22 x .007 in** **22 x 31 x .2 mm**
Weight	**0.8 g***

*weight does not include ground plane or connector
† requires 8 mm standoff from groundplane

Spherical Gain Contour Maps

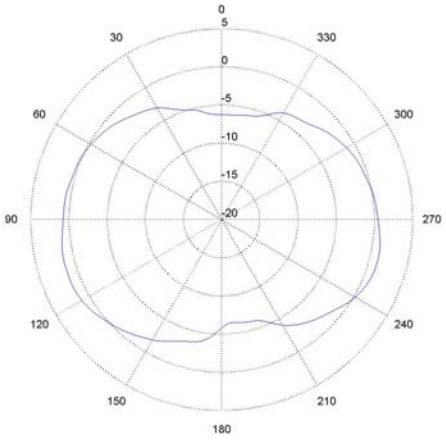


850 MHz

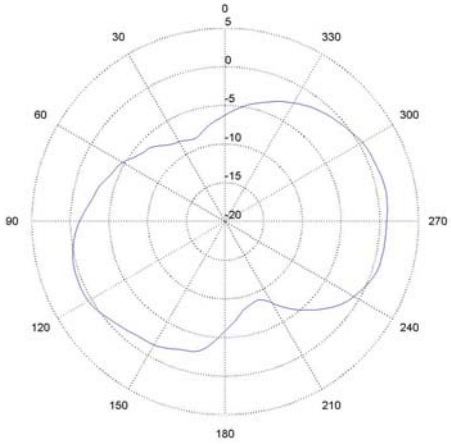


1900 MHz

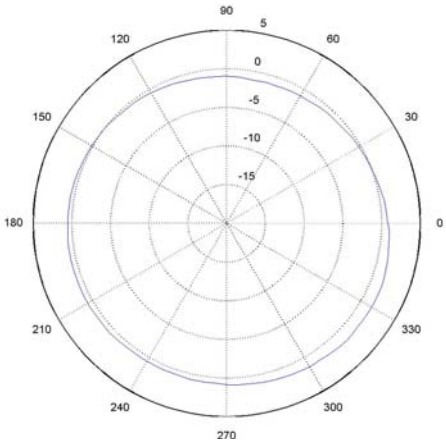
Typical Gain Pattern at 850 MHz



Phi = 0 degrees

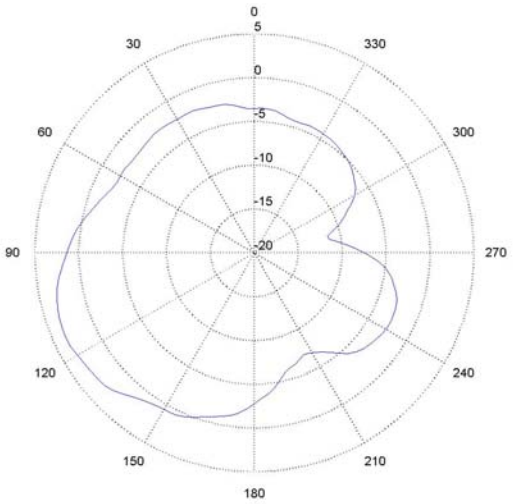


Phi = 90 degrees

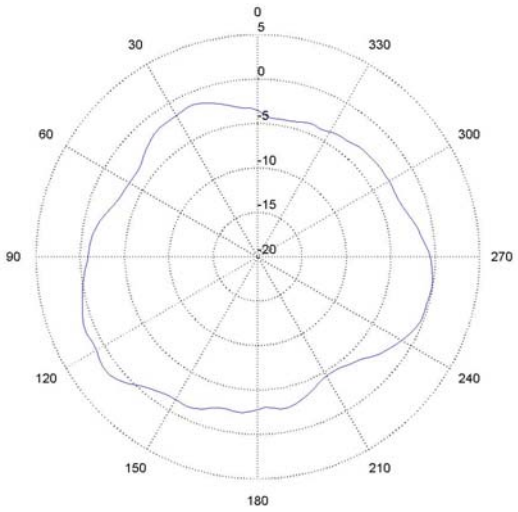


Theta = 90 degrees

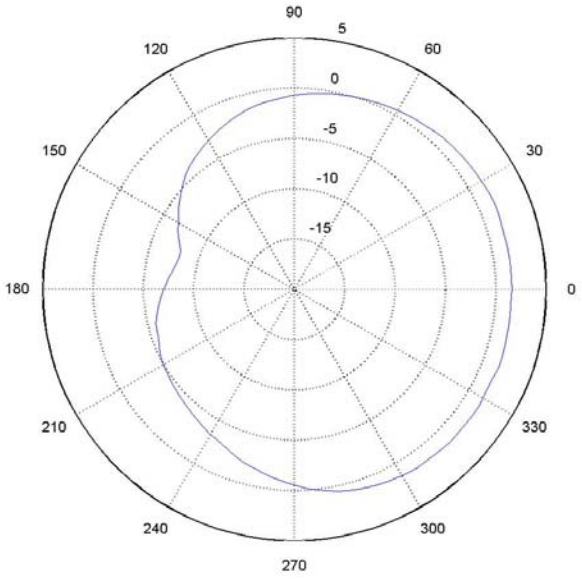
Typical Gain Pattern at 1900 MHz



Phi = 0 degrees

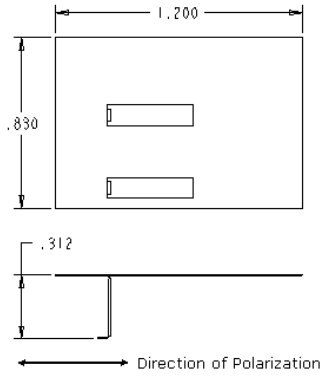


Phi =90 degrees

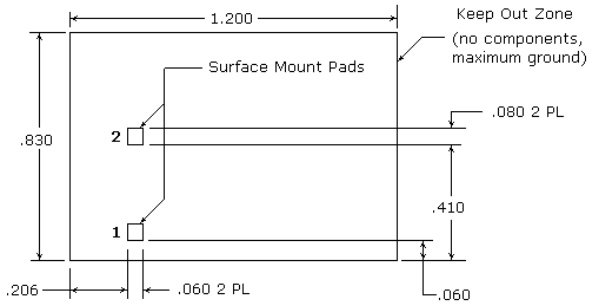


Theta = 90 degrees

EM-800M-1900U Foot Print Details

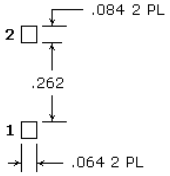


Part Dimensions



Pin 1: Feed
Pin 2: Ground

Recommended
Solder Pad Layout



Recommended Solder
Mask Opening

Linear Tolerance: ±.005
Angular Tolerance: ±.05
Dimensions are in inches
Drawing not to scale