

# RSRA698/2700SSM

**RFMAX**  
ANTENNAS



This LTE antenna is a high-end design that provides excellent performance in a tiny package. It offers higher efficiency at the lower frequency bands on a smaller ground plane than competitive products. This equates to better range in a smaller product size, saving valuable real estate in the design. This combination of high performance and small size makes this antenna ideal for small devices, particularly when used for the Internet of Things (IoT) and with the CAT-M1 and NB-IOT standards. Also covering all major bands used by LTE, 3G and 4G cellular technologies.

#### Features:

- Covers all common 4G/3G/2G and LTE bands
- Tilt / Swivel Joint for optimum positioning
- Small, unobtrusive profile

# RSRA698/2700SSM



## Electrical Specifications

Frequency 1	698-960 MHz
Frequency 2	1710-2170 MHz
Frequency 3	2300-2400 MHz
Frequency 4	2500-2700 MHz
Frequency 5	3400-3600 MHz
Frequency 6	3600-3800 MHz
Gain 1	5.8 dBi
Gain 2	3.7 dBi
Gain 3	2 dBi
Gain 4	1.4 dBi
Gain 5	5.2 dBi
Gain 6	6.1 dBi
Polarization	Linear
Radiation	Omni-Directional
Impedance	50 Ohms
Max Power	15 W

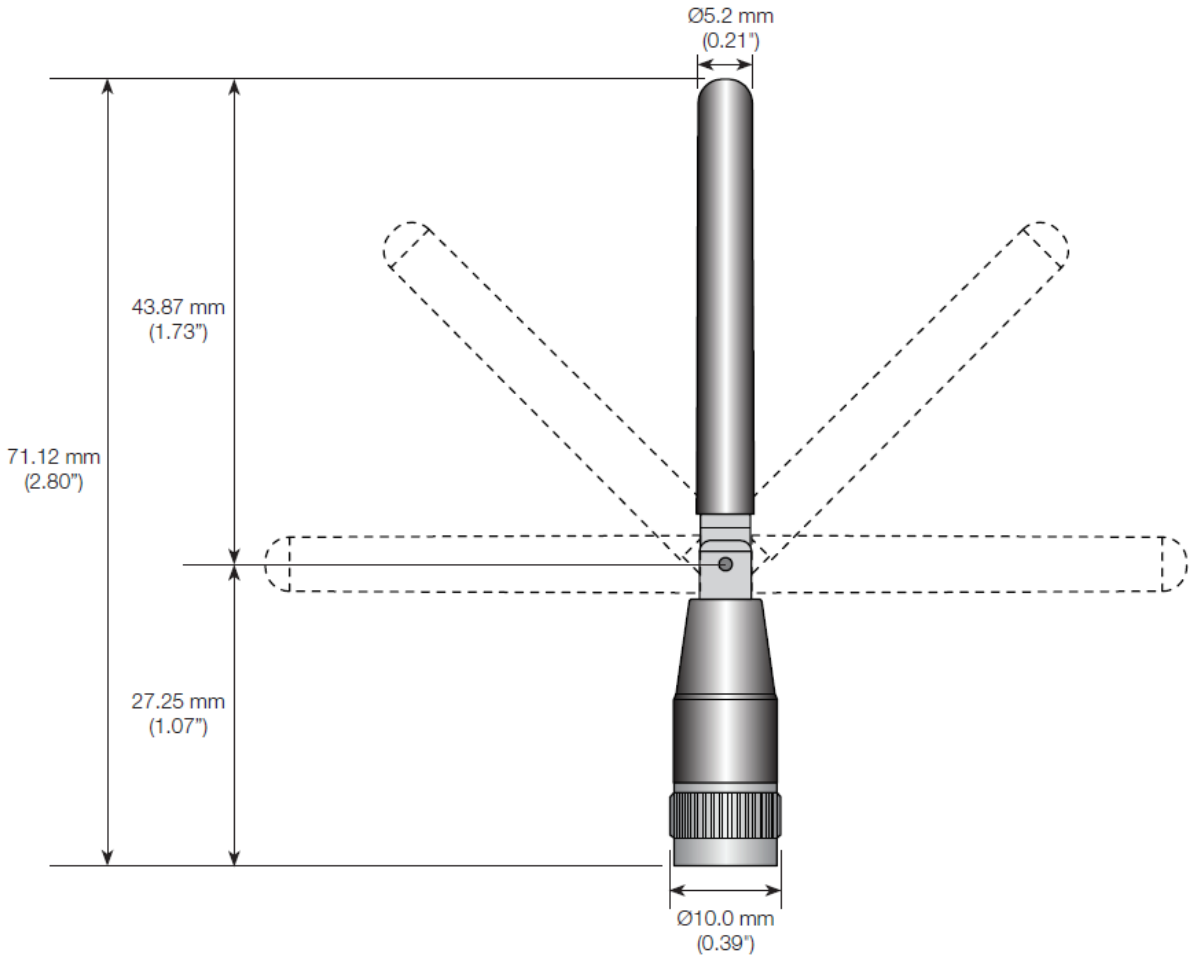
## Environmental Specifications

Operating Temperature [°C]	-40 to 70
Storage Temperature [°C]	-40 to 70

## Mechanical Specifications

Color	Black
Connector	SMA Male (Plug)
Weight	8g

# RSRA698/2700SSM



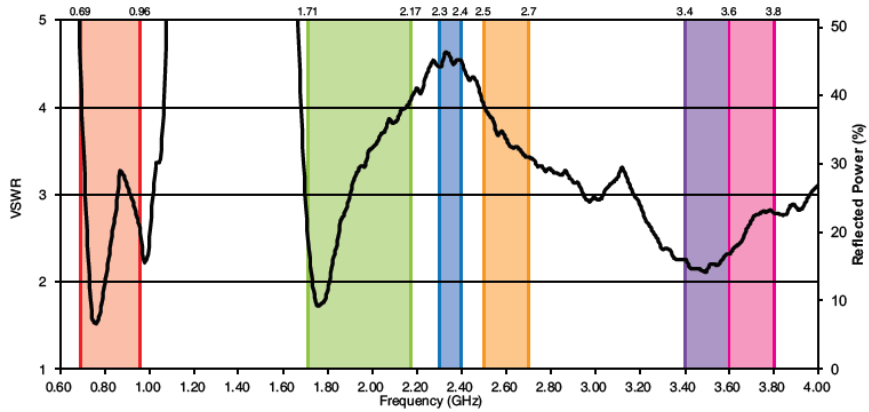
# RSRA698/2700SSM



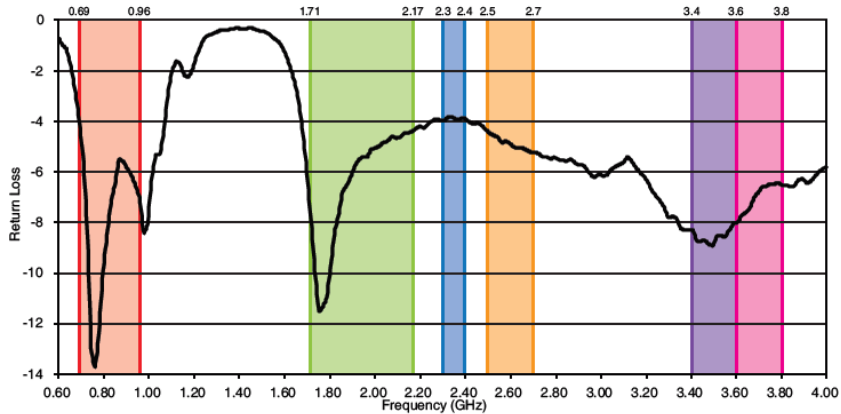
Edge of the Ground Plane, Straight



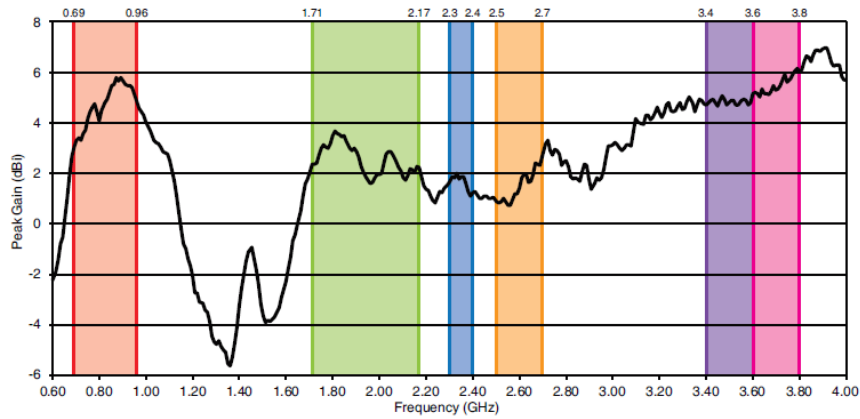
VSWR



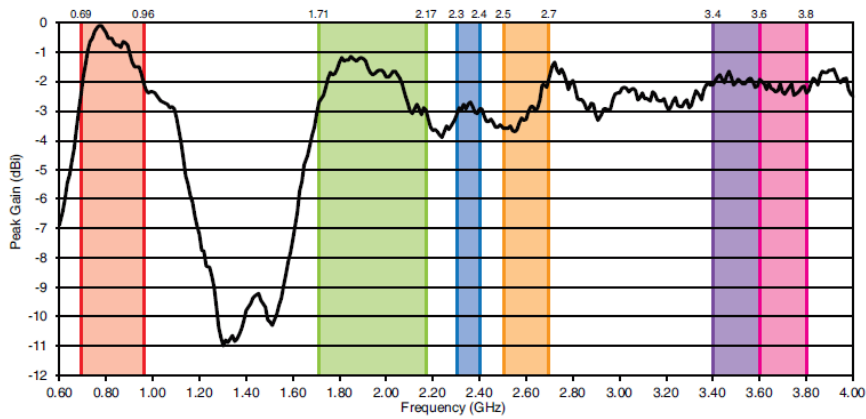
Return Loss



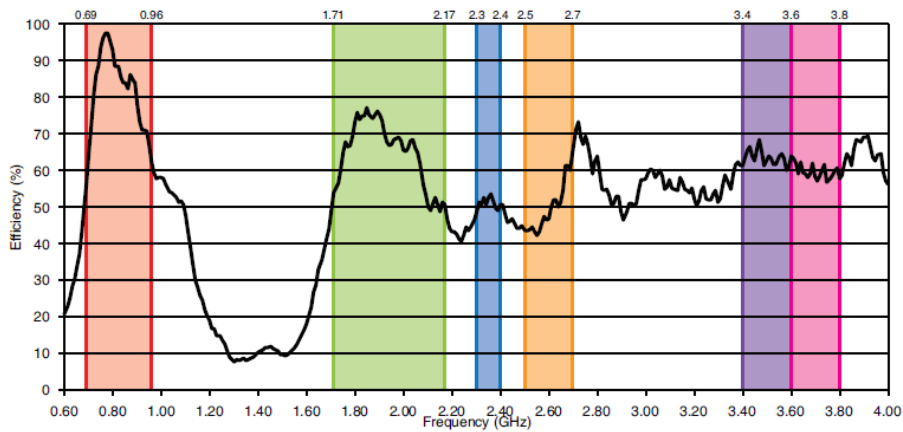
Peak Gain



Average Gain



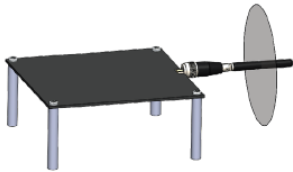
Radiation Efficiency



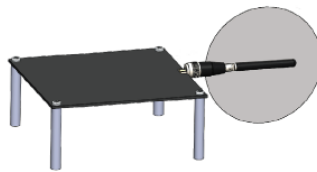
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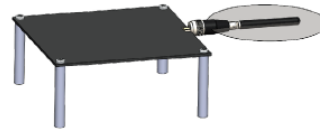
## Gain Plots - Edge of Plane, Straight



XZ-Plane Gain

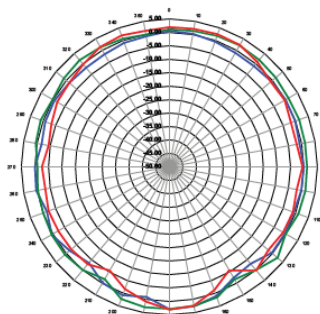


YZ-Plane Gain

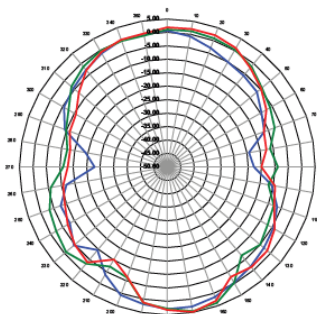


XY-Plane Gain

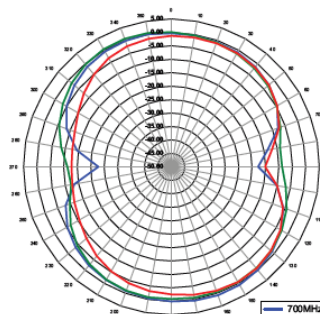
### 700 - 960MHz



XZ-Plane Gain



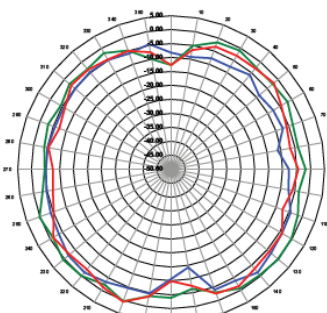
YZ-Plane Gain



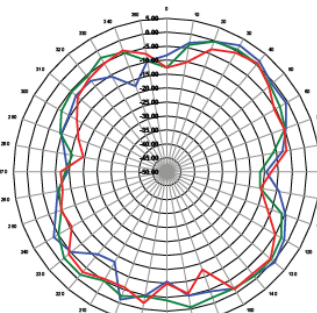
XY-Plane Gain



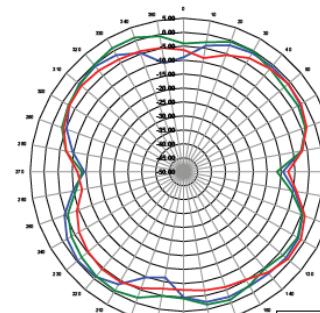
### 1710 - 2170MHz



XZ-Plane Gain



YZ-Plane Gain



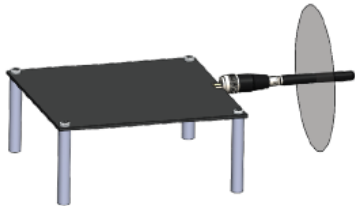
XY-Plane Gain



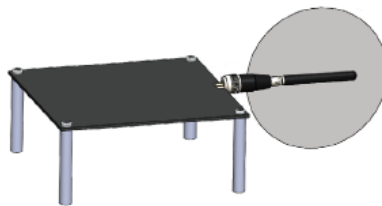
# RSRA698/2700SSM



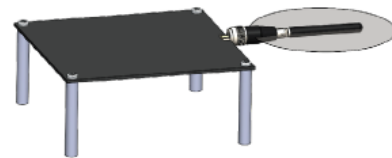
## Gain Plots - Edge of Plane, Straight



XZ-Plane Gain

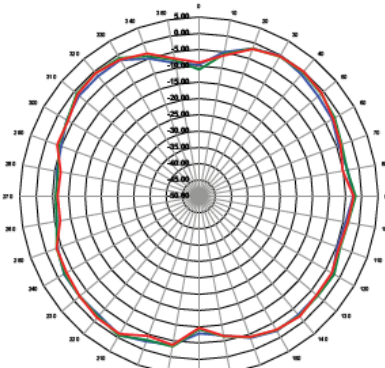


YZ-Plane Gain

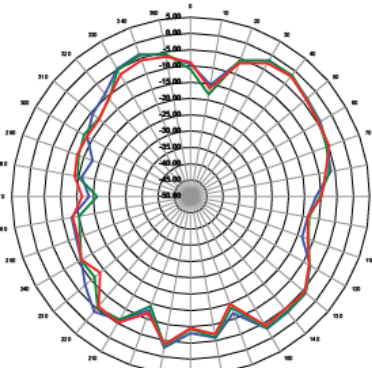


XY-Plane Gain

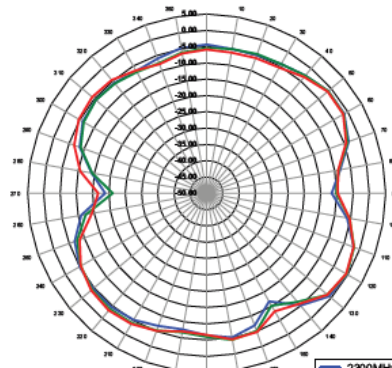
### 2300 - 2400MHz



XZ-Plane Gain



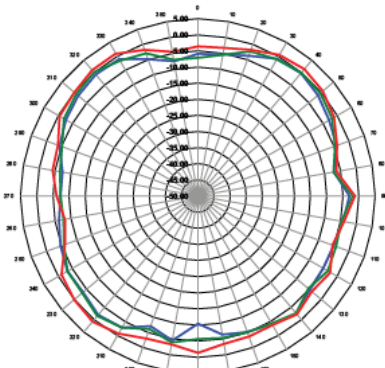
YZ-Plane Gain



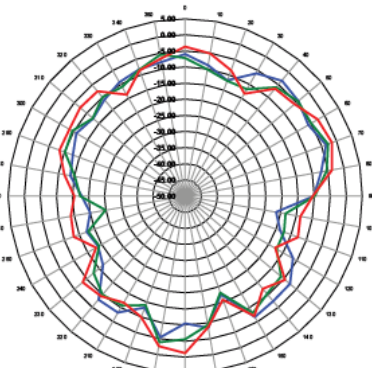
XY-Plane Gain



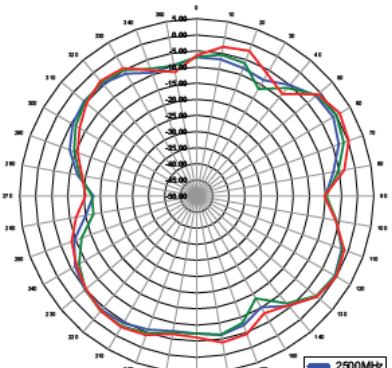
### 2500 - 2700MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

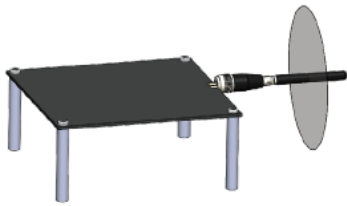




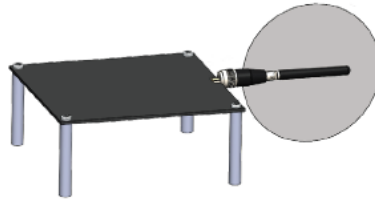
# RSRA698/2700SSM



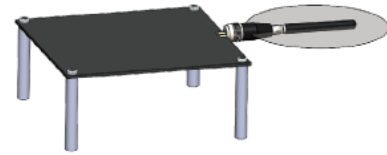
## Gain Plots - Edge of Plane, Straight



XZ-Plane Gain

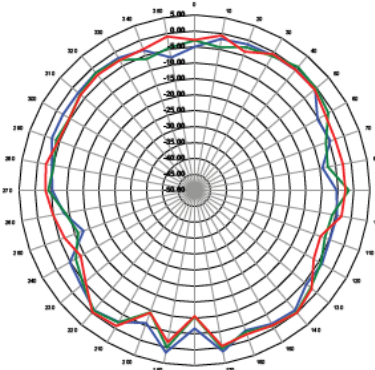


YZ-Plane Gain

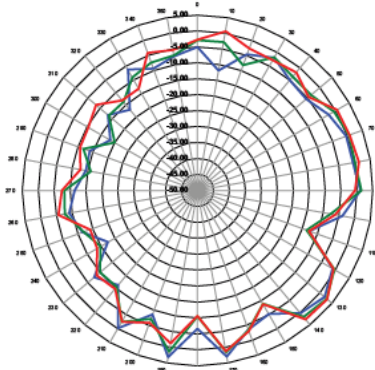


XY-Plane Gain

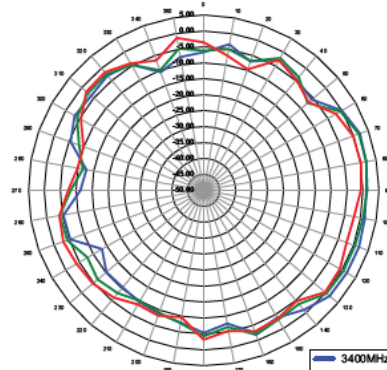
### 3400 - 3600MHz



XZ-Plane Gain



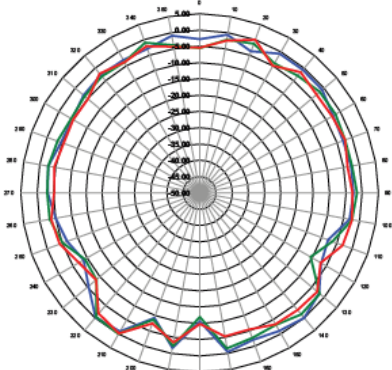
YZ-Plane Gain



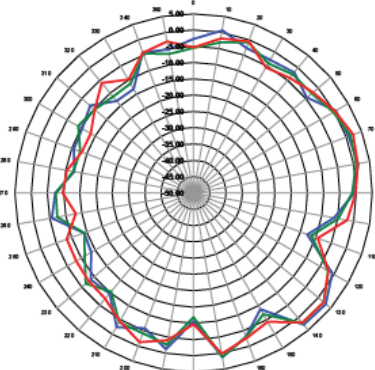
XY-Plane Gain



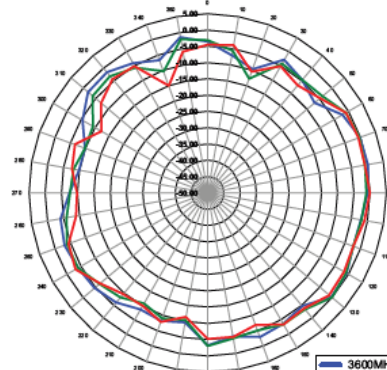
### 3600 - 3800MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

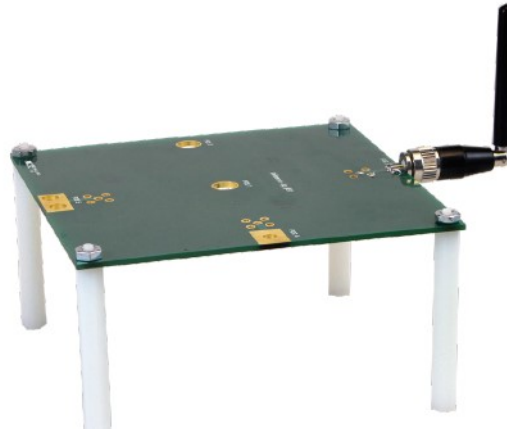




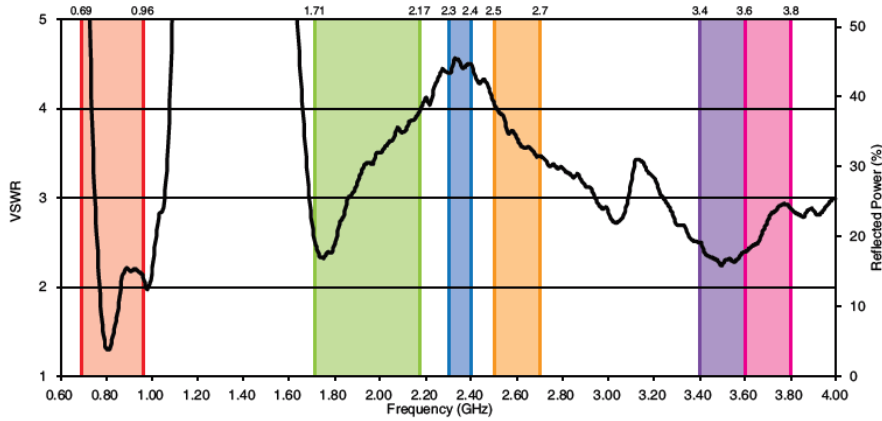
# RSRA698/2700SSM



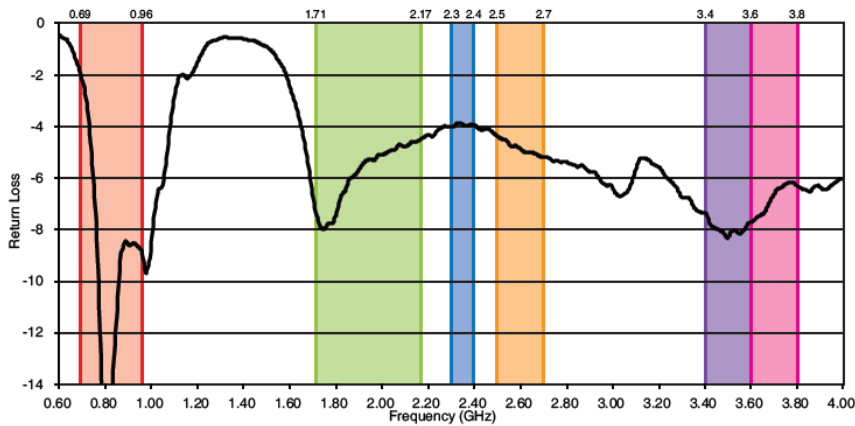
Edge of the Ground Plane, Bent 90°



## VSWR



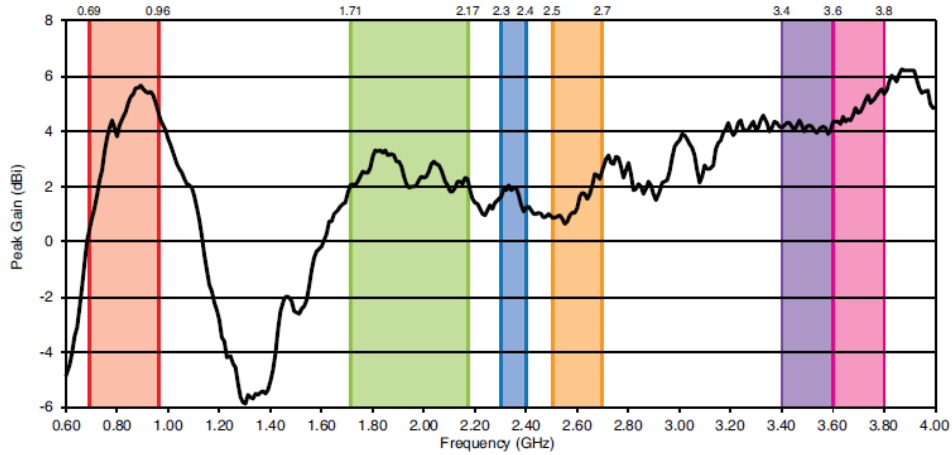
## Return Loss



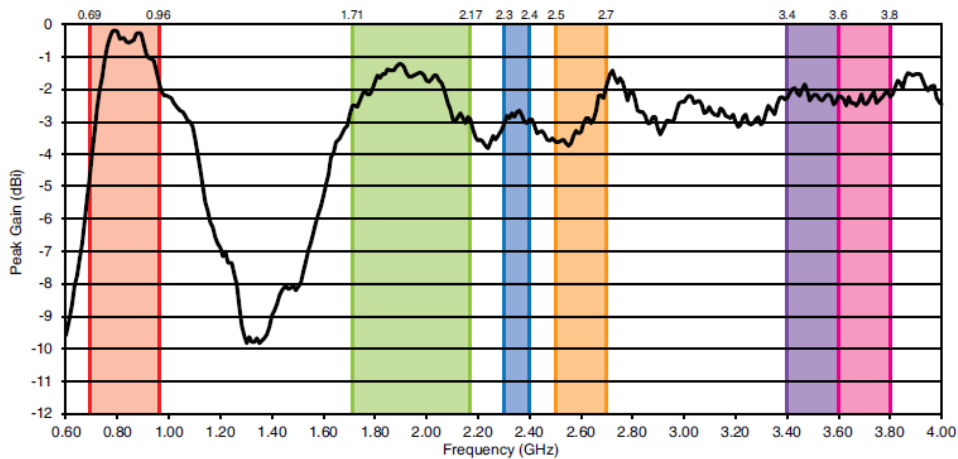
# RSRA698/2700SSM



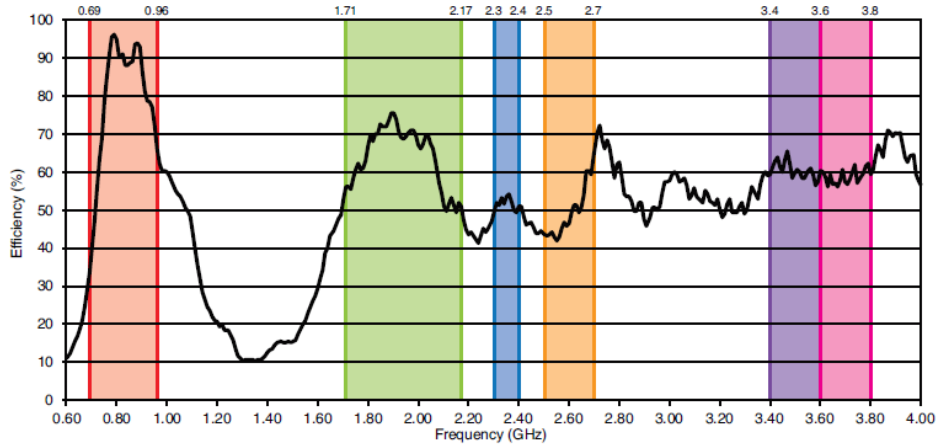
## Peak Gain



## Average Gain



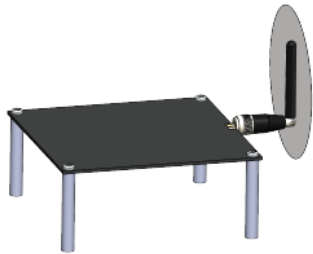
## Radiation Efficiency



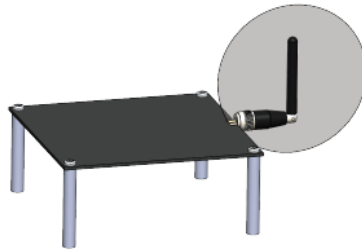
# RSRA698/2700SSM



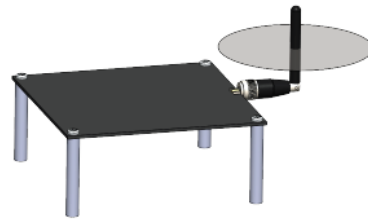
## Gain Plots - Edge of Plane, Bent 90°



XZ-Plane Gain

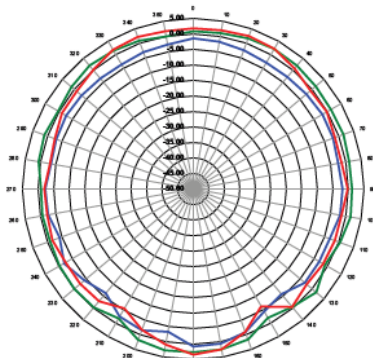


YZ-Plane Gain

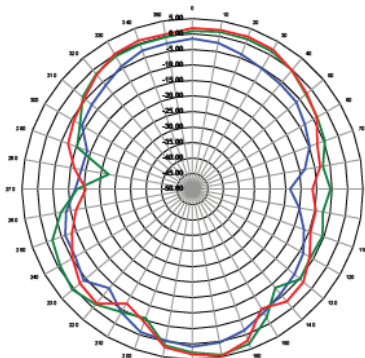


XY-Plane Gain

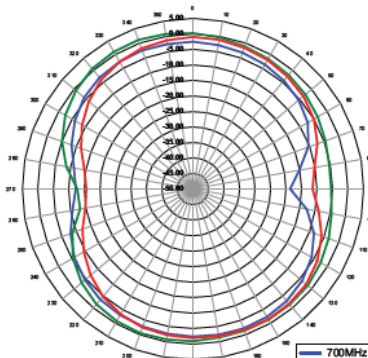
### 700 - 960MHz



XZ-Plane Gain



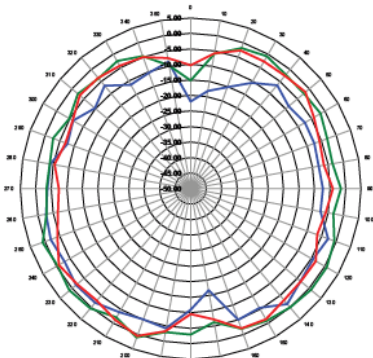
YZ-Plane Gain



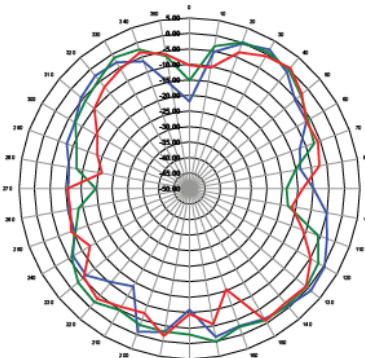
XY-Plane Gain



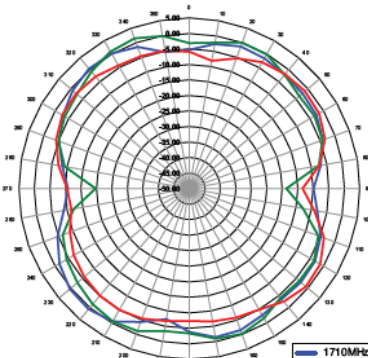
### 1710 - 2170MHz



XZ-Plane Gain



YZ-Plane Gain



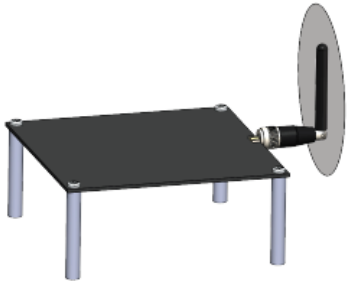
XY-Plane Gain



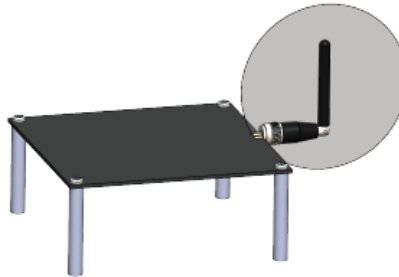
# RSRA698/2700SSM



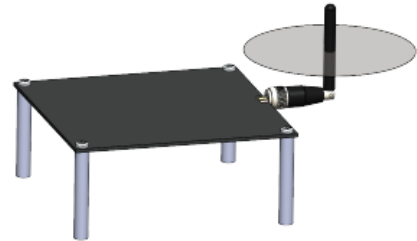
## Gain Plots - Edge of Plane, Bent 90°



XZ-Plane Gain

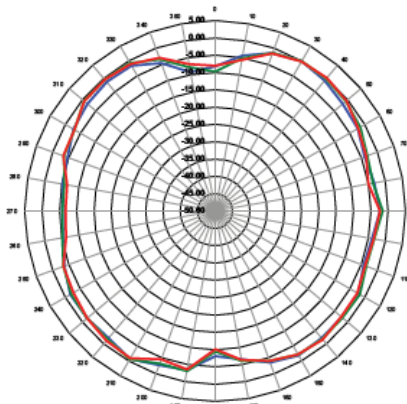


YZ-Plane Gain

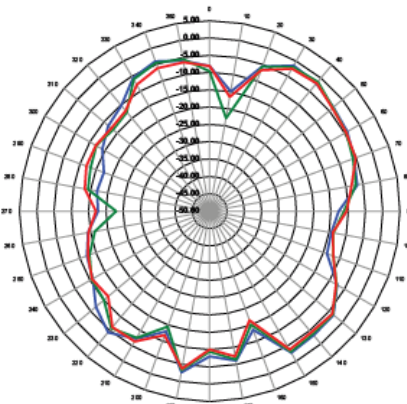


XY-Plane Gain

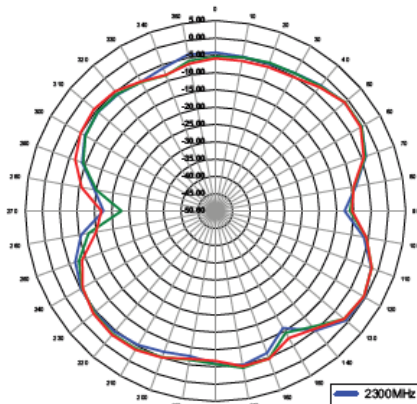
### 2300 - 2400MHz



XZ-Plane Gain



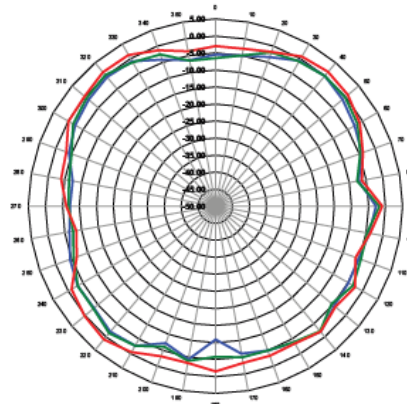
YZ-Plane Gain



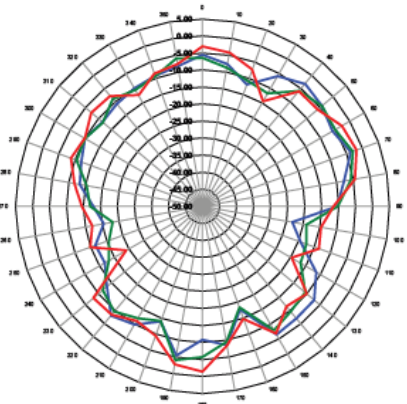
XY-Plane Gain



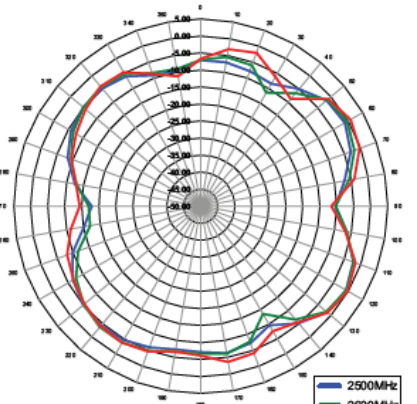
### 2500 - 2700MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

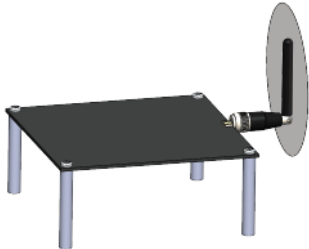




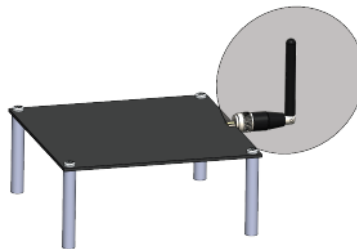
# RSRA698/2700SSM



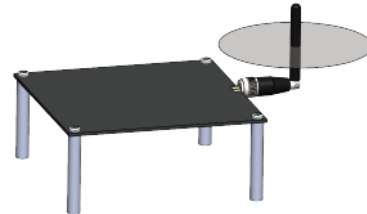
## Gain Plots - Edge of Plane, Bent 90°



XZ-Plane Gain

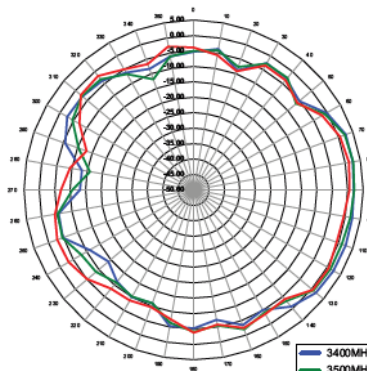
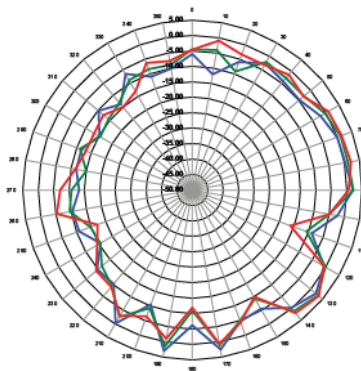
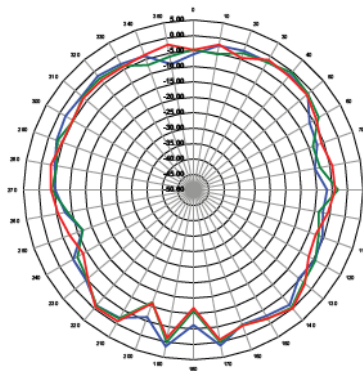


YZ-Plane Gain



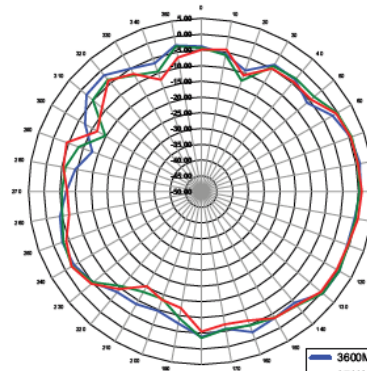
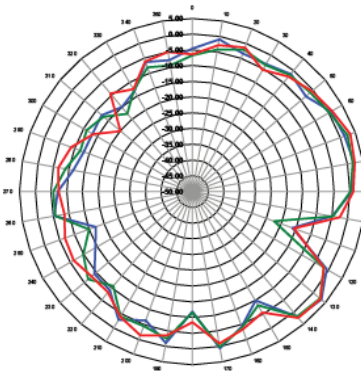
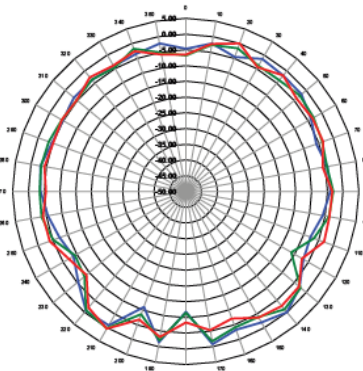
XY-Plane Gain

### 3400 - 3600MHz



3400MHz  
3500MHz

### 3600 - 3800MHz



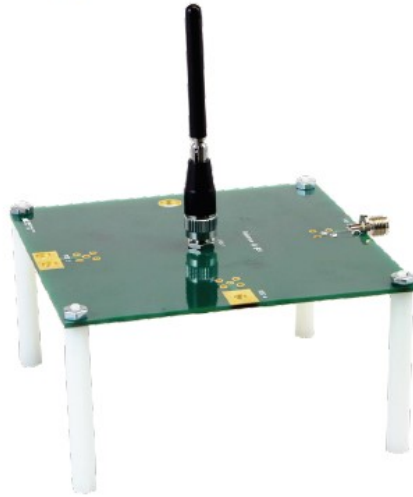
3600MHz  
3700MHz  
3800MHz



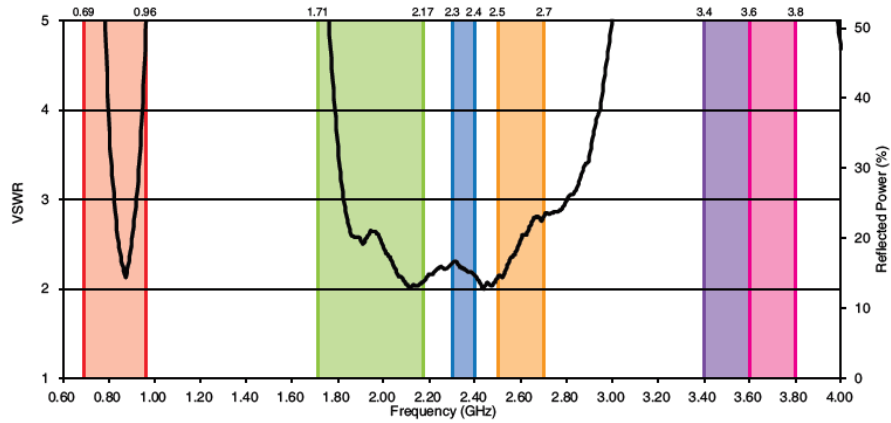
# RSRA698/2700SSM



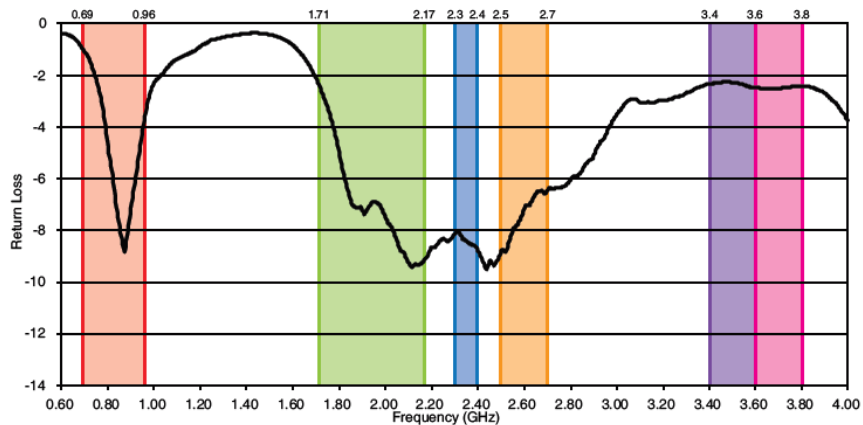
Center of the Ground Plane, Straight



VSWR

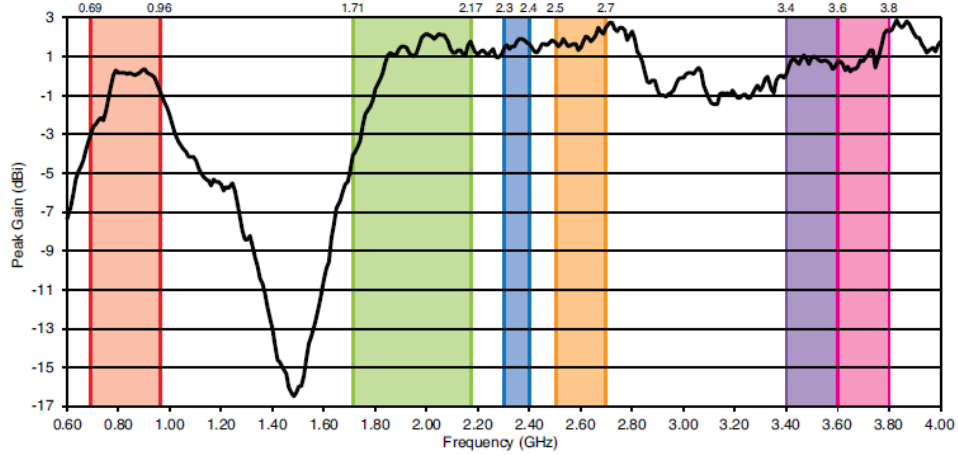


Return Loss

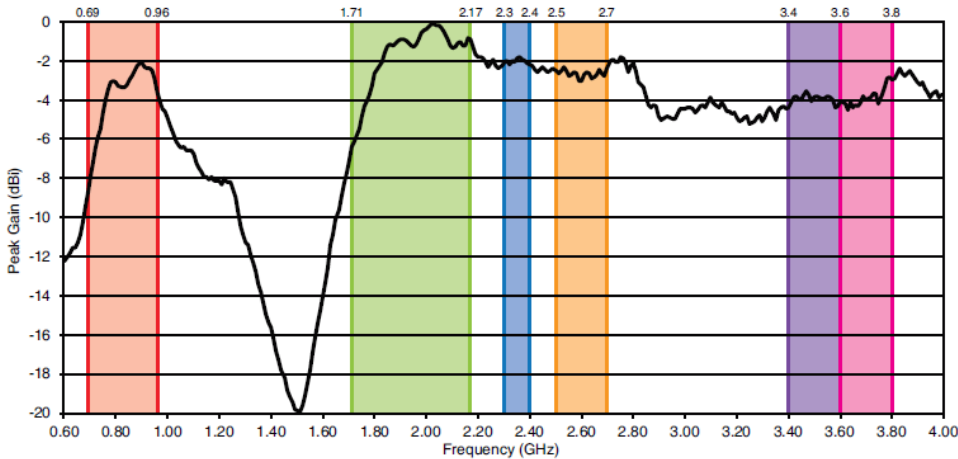




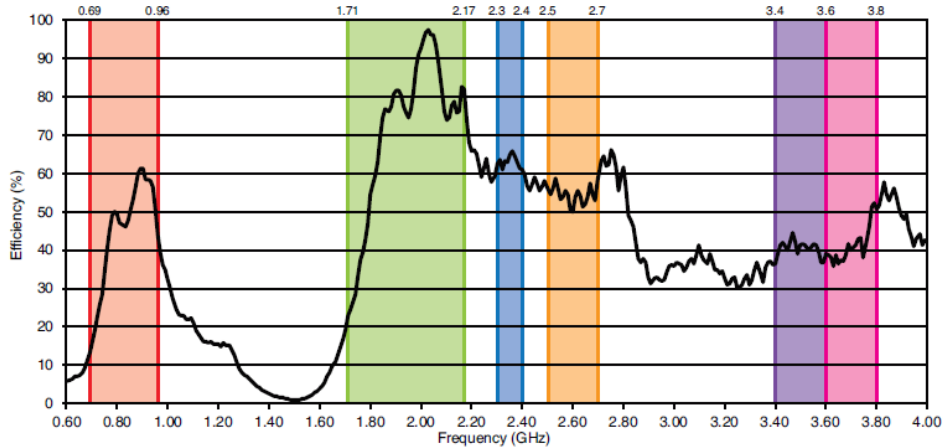
## Peak Gain



## Average Gain



## Radiation Efficiency



# RSRA698/2700SSM



## Gain Plots - Center of Plane, Straight



XZ-Plane Gain

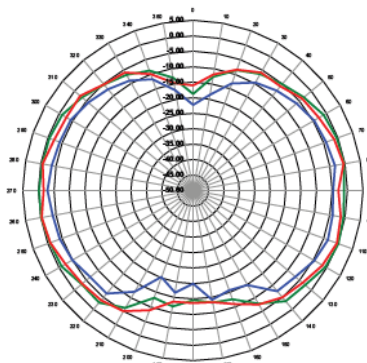


YZ-Plane Gain

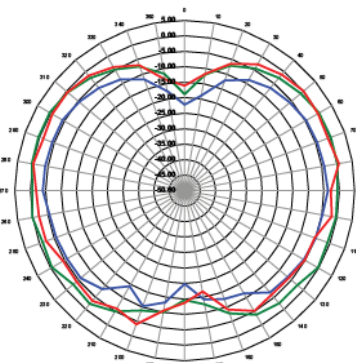


XY-Plane Gain

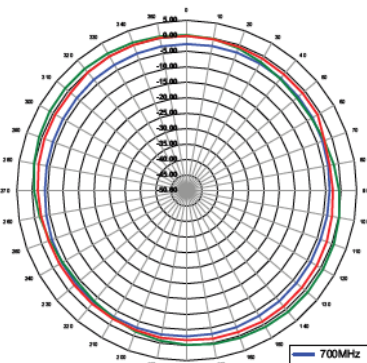
### 700 - 960MHz



XZ-Plane Gain

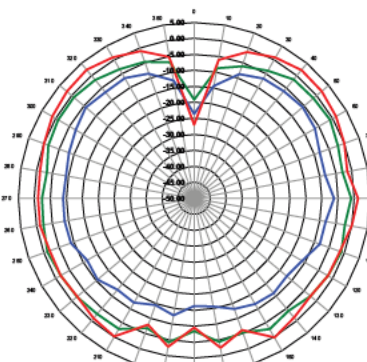


YZ-Plane Gain

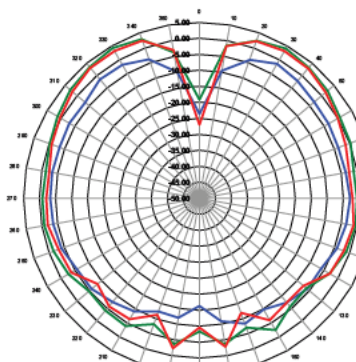


XY-Plane Gain

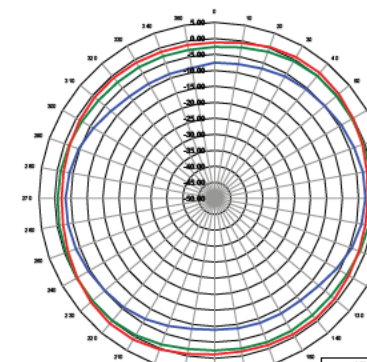
### 1710 - 2170MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

# RSRA698/2700SSM



## Gain Plots - Center of Plane, Straight



XZ-Plane Gain

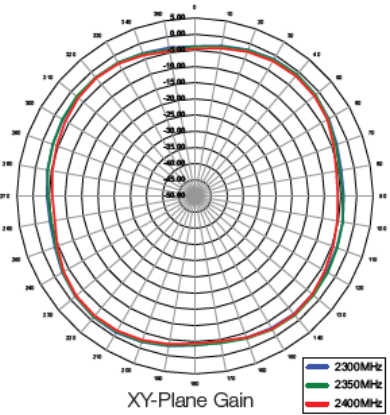
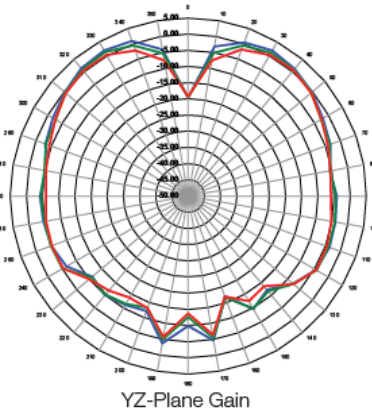
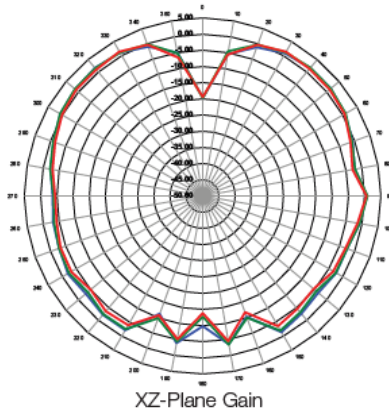


YZ-Plane Gain

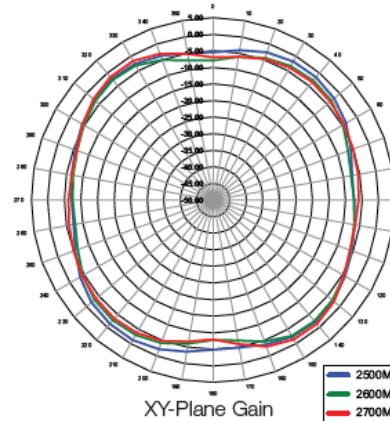
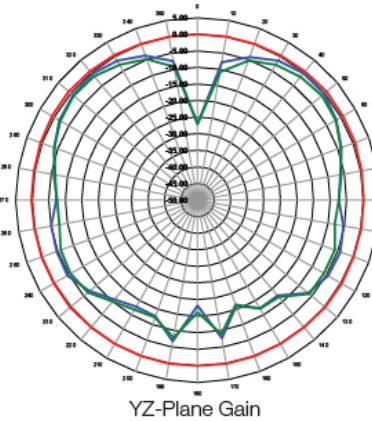
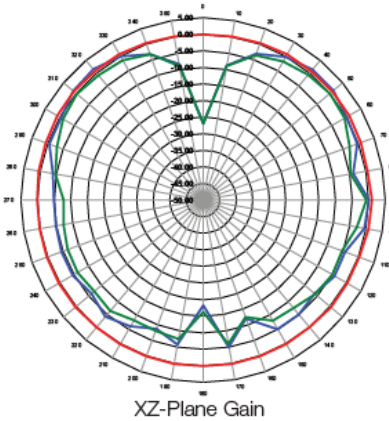


XY-Plane Gain

### 2300 - 2400MHz



### 2500 - 2700MHz



# RSRA698/2700SSM



## Gain Plots - Center of Plane, Straight



XZ-Plane Gain

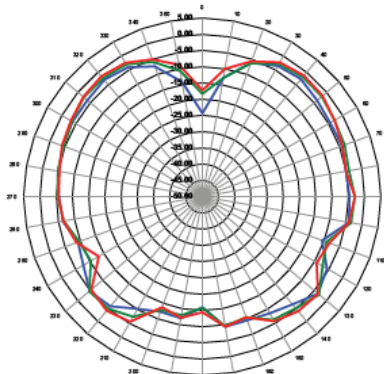


YZ-Plane Gain

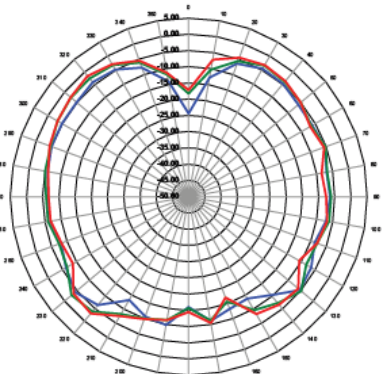


XY-Plane Gain

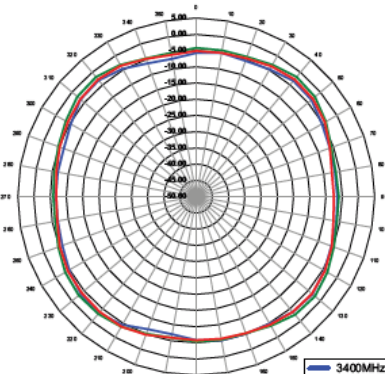
### 3400 - 3600MHz



XZ-Plane Gain



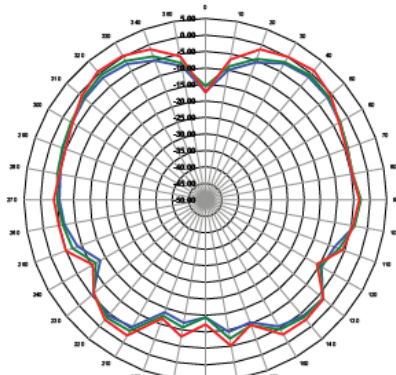
YZ-Plane Gain



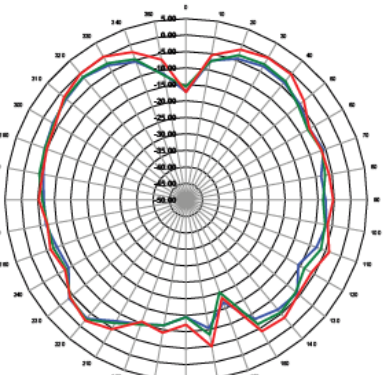
XY-Plane Gain



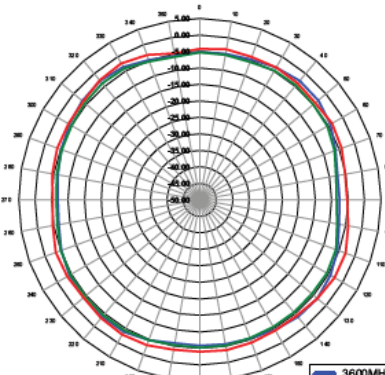
### 3600 - 3800MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

