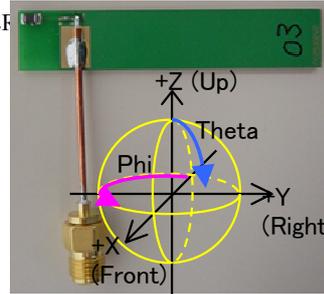
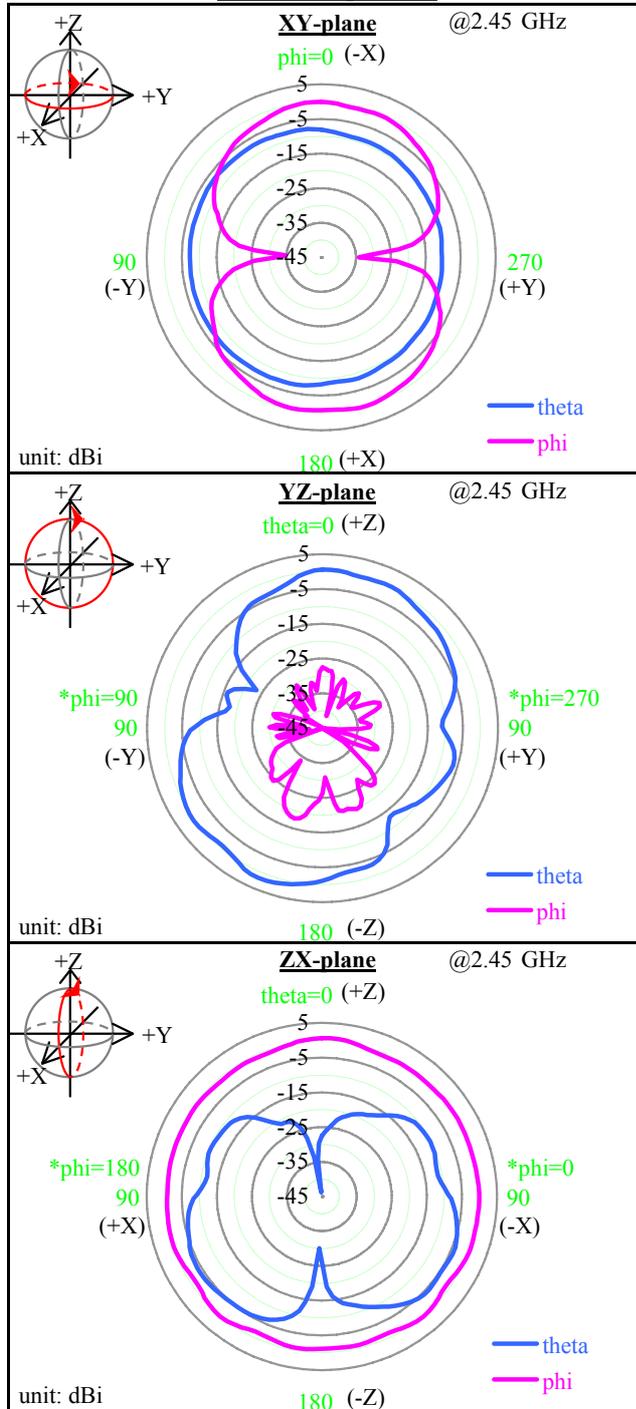


Measured in Satimo Stargate system at TAIYO YUDEN R&D CENTER
 Antenna sample: AF_216M2450
 Antenna size: 2.5 x 1.6 [mm]
 Antenna on evaluation PCB (52 x 10 [mm])

09.Jul.2004
 TAIYO YUDEN CO.,LTD.



Radiation pattern



*theta=Vertical polar, phi=Horizontal polar

Peak gain

| Frequency [GHz] | | @2.4 | @2.45 | @2.5 |
|-----------------|-------|-------|-------|-------|
| XY-plane | theta | -6.8 | -6.9 | -6.7 |
| | phi | -0.2 | 0.0 | -0.1 |
| YZ-plane | theta | 1.5 | 1.8 | 2.0 |
| | phi | -18.5 | -17.9 | -17.8 |
| ZX-plane | theta | -3.9 | -3.9 | -3.4 |
| | phi | -0.1 | 0.6 | 0.6 |

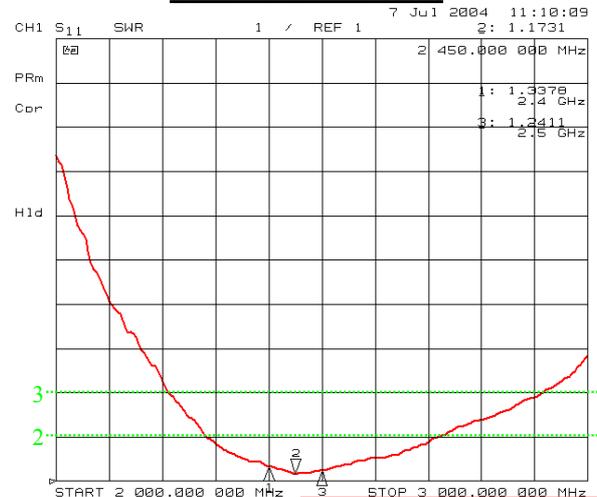
Average gain

| Frequency [GHz] | | @2.4 | @2.45 | @2.5 |
|-----------------|----------|-------------|-------------|-------------|
| XY-plane | theta | -8.2 | -8.2 | -8.3 |
| | phi | -3.9 | -3.7 | -3.7 |
| | Ave(t,p) | -5.5 | -5.4 | -5.4 |
| YZ-plane | theta | -3.1 | -2.8 | -2.7 |
| | phi | -26.5 | -26.7 | -26.4 |
| | Ave(t,p) | -6.0 | -5.8 | -5.7 |
| ZX-plane | theta | -8.8 | -8.5 | -8.4 |
| | phi | -0.9 | -0.6 | -0.4 |
| | Ave(t,p) | -3.2 | -2.9 | -2.8 |
| Total | theta | -5.9 | -5.7 | -5.6 |
| | phi | -3.9 | -3.6 | -3.5 |
| | Ave(t,p) | -4.8 | -4.5 | -4.4 |

*Note: The value is average value in 1 round of each inclination direction angle.

*Note: Total Ave.Gain={XY(V)+XY(H)+YZ(V)+YZ(H)+ZX(V)+ZX(H)}/6

VSWR characteristics



Efficiency

| Frequency [GHz] | @2.4 | @2.45 | @2.5 |
|-----------------|------|-------|------|
| Efficiency [dB] | -1.7 | -1.4 | -1.3 |

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