

**Table 3-11 Antenna Section**

| Parameter |                 | Symbol | Conditions               | Limits |     |     | Unit |
|-----------|-----------------|--------|--------------------------|--------|-----|-----|------|
|           |                 |        |                          | Min    | Typ | Max |      |
| E1        | RX antenna Gain | Grxa   | $f_{RF}=24.15\text{GHz}$ |        | 2   |     | dBi  |
| E2        | TX antenna Gain | Gtxa   | $f_{RF}=24.15\text{GHz}$ |        | 2   |     | dBi  |

**Table 3-12 LO Section**

| Parameter |                  | Symbol | Conditions               | Limits |     |       | Unit          |
|-----------|------------------|--------|--------------------------|--------|-----|-------|---------------|
|           |                  |        |                          | Min    | Typ | Max   |               |
| E3        | LO frequency     | fLO    |                          | 24.059 |     | 24.24 | GHz           |
| E4        | PLL lock-up time | Tlock  | $\Delta f < 1\text{MHz}$ |        |     | 30    | $\mu\text{s}$ |

## A. Appendix

### Antenna pattern (Reference)

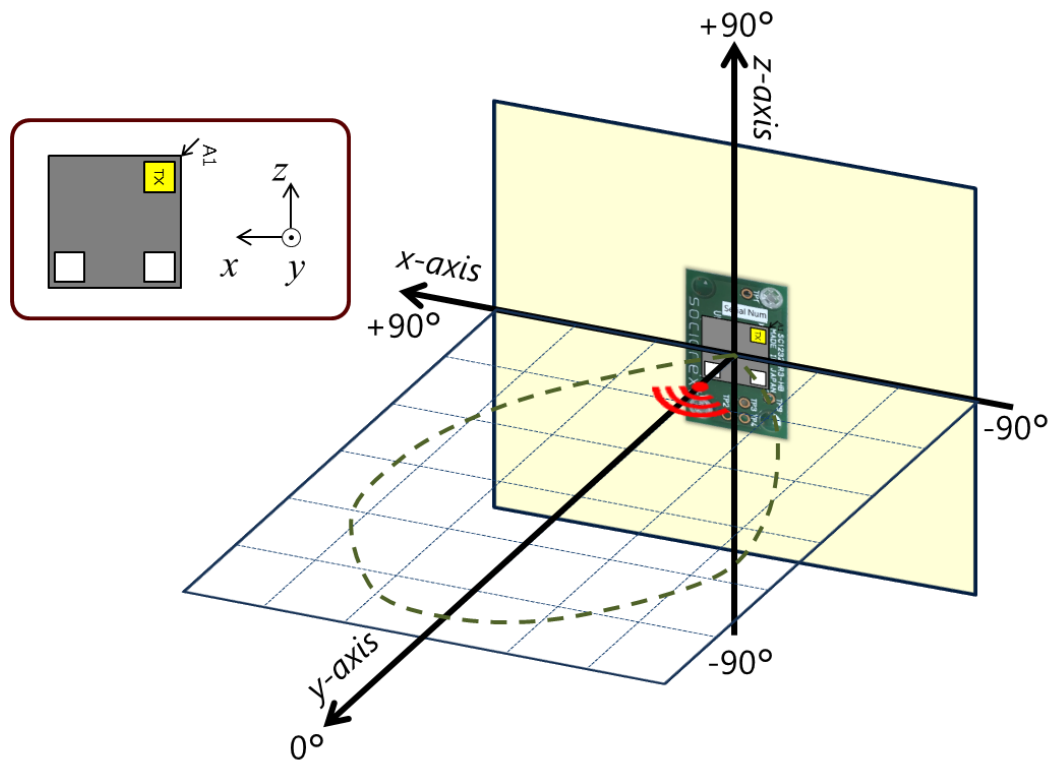


Figure A-1 xyz-axes and angle

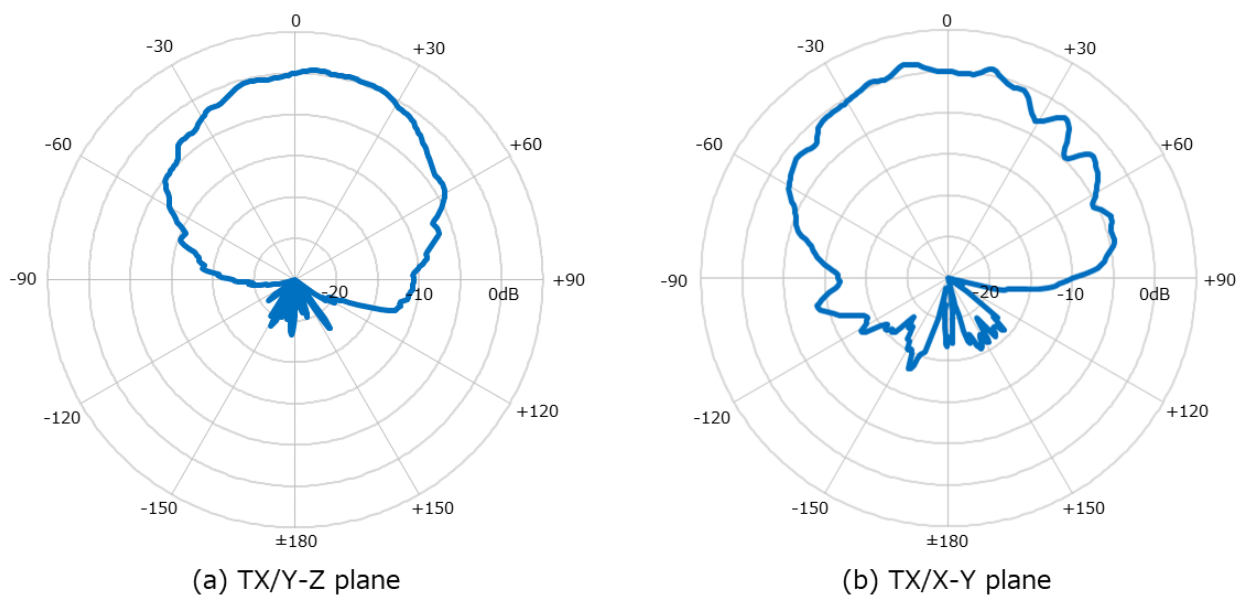
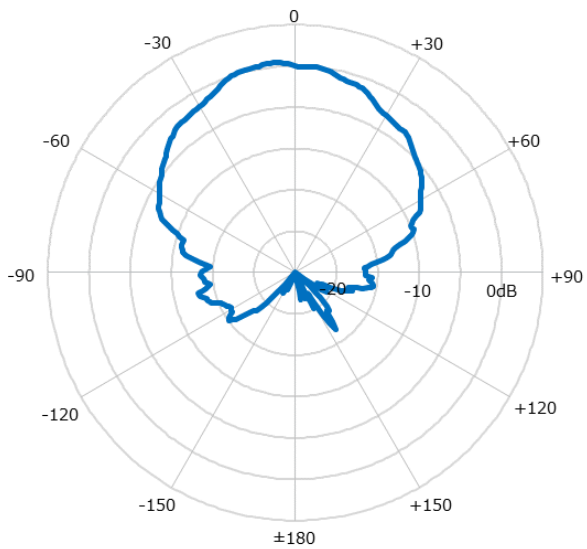
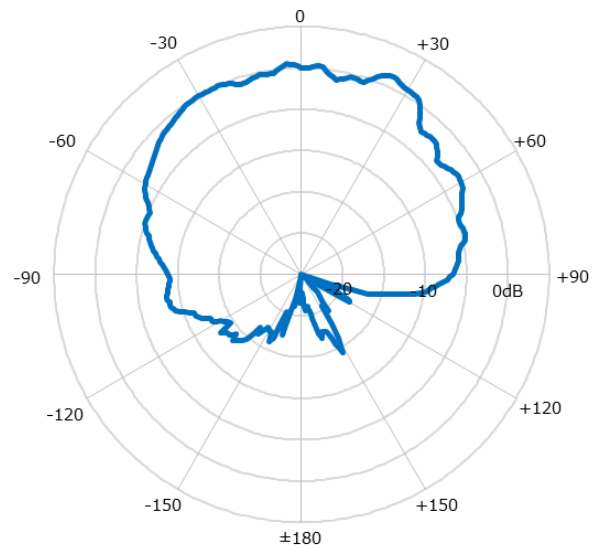


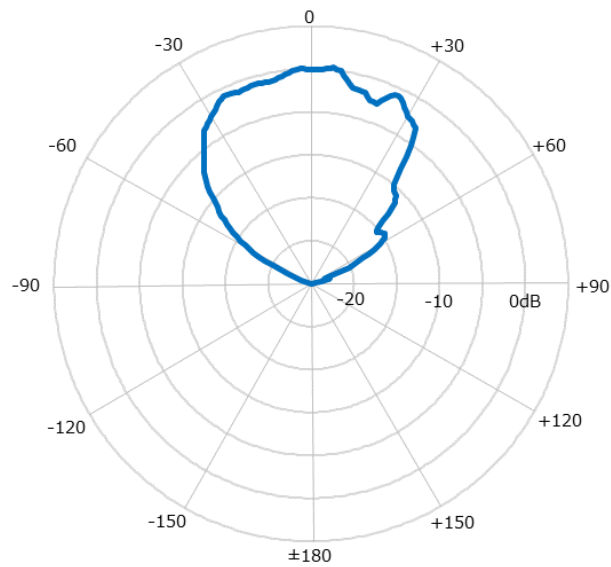
Figure A-2 Measured TX antenna pattern at 24.15GHz (Normalized 0-degree power to 0dB)



(a) RX/Y-Z plane



(b) RX/X-Y plane  
(without Digital Beam Shaping)



(c) RX/X-Y plane  
(with Digital Beam Shaping)

**Figure A-3 Measured RX antenna pattern at 24.15GHz (Normalized 0-degree gain to 0dB)**