

## Feature

- ※ High gain
- ※ Omani-directional
- ※ Wide bandwidth

## Application

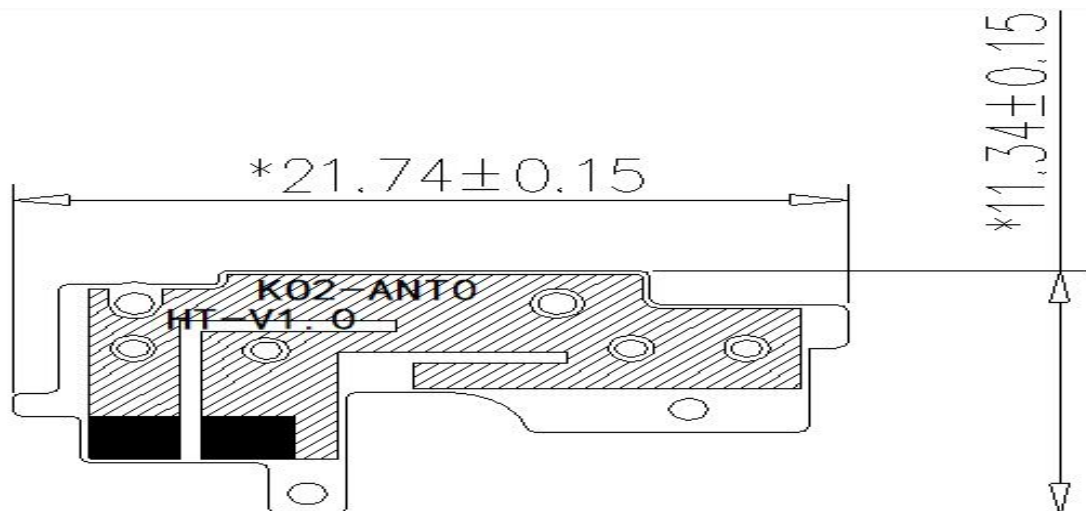
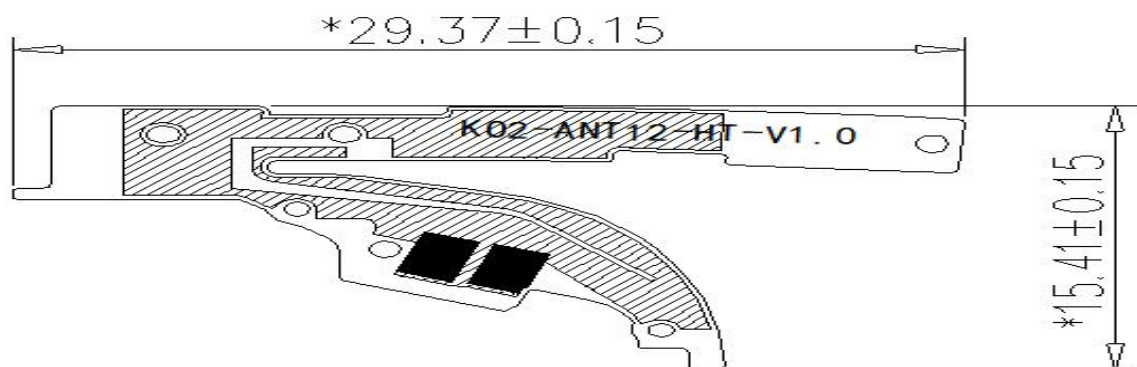
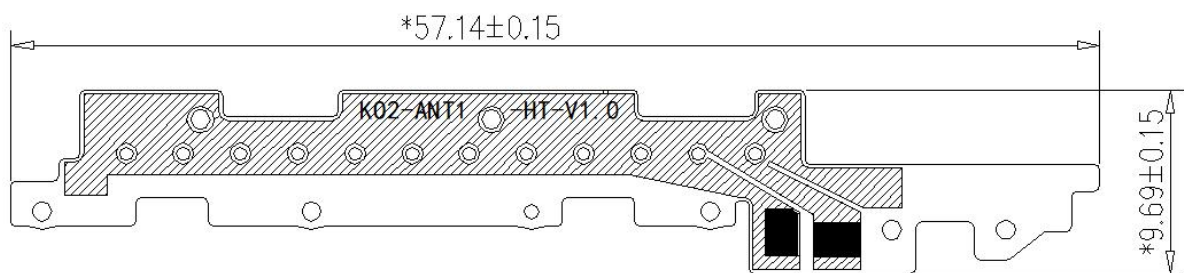
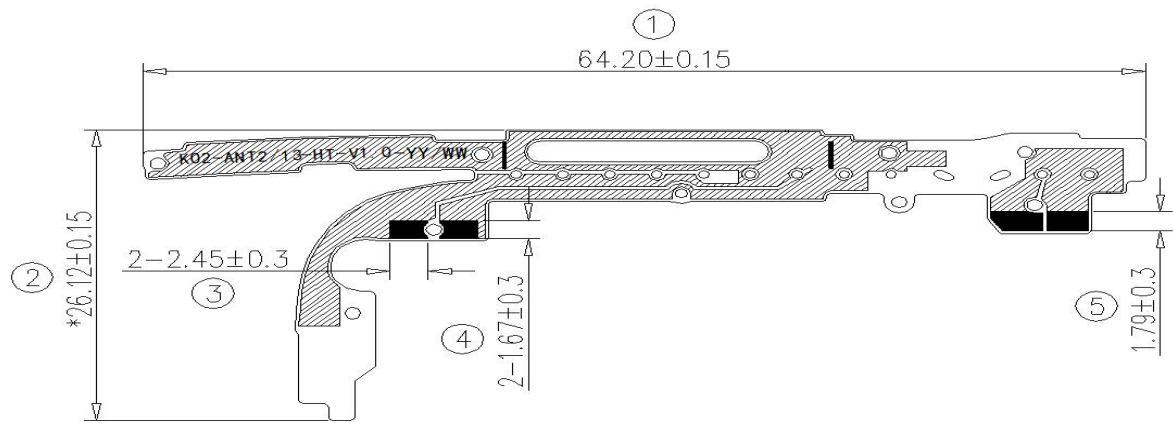
- ※GSM 850/900/DCS1800/PCS1900
- WCDMA B1/B2/B4/B5/B8
- LTE B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B28/B38/B40/B41/B66

communication applications

- ※Antenna manufacturer
- Zhejiang Haitong communications electronic Limited  
浙江海通通讯电子股份有限公司

Chongqing R&D Center: Room 304, building 27, Xiantao Internation Data Valley, Yubei District, Chongqing city

※Antenna type



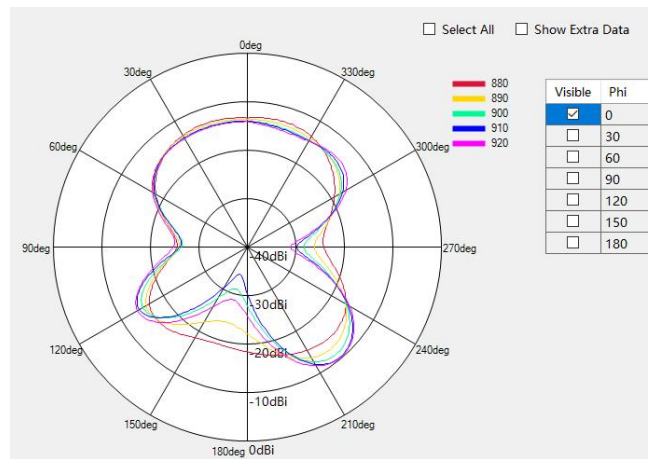
## Electric Specifications

| TYPE                  | FPC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Transmitter Frequency | GSM850: 824~849MHz(TX)<br>GSM900: 880-915MHz (TX)<br>DCS1800: 1710-1785MHz (TX)<br>PCS1900:1850-1910MHz (TX)<br>WCDMAband I: 1920~1980MHz(TX)<br>WCDMAband II :1850~1910MHz(TX)<br>WCDMAband IV:1710~1755MHz(TX)<br>WCDMAband V: 824~849MHz(TX)<br>WCDMAband VIII: 880~915MHz(TX)<br>LTE B1: 1920~1980MHz(TX)<br>LTE B2: 1850~1910MHz(TX)<br>LTE B3: 1710~1785MHz(TX)<br>LTE B4: 1710~1755MHz(TX)<br>LTE B5: 824~849MHzMHz(TX)<br>LTE B7: 2500~2570MHz(TX)<br>LTE B8: 880~915MHzMHz(TX)<br>LTE B12: 699~716MHz(TX)<br>LTE B17: 704~716MHz(TX)<br>LTE B20: 832~862MHz(TX)<br>LTE B28AB: 703~748MHz(TX)<br>LTE B38: 2570~2620MHz(TX)<br>LTE B40: 2300~2400MHz(TX)<br>LTE B41: 2535~2655MHz(TX)<br>LTE B66: 1710~1780MHz(TX)<br>WIFI:2412 -2472 MHz/5150-5850 MHz<br>GPS:1575.42MHz<br>Bluetooth:2402 - 2480 MHz |
| Receiver Frequency    | GSM850: 869-894MHz (RX)<br>GSM900: 925-960MHz (RX)<br>DCS1800: 1805-1880MHz (RX)<br>PCS1900:1930-1990MHz (RX)<br>WCDMAband I:2110~2170MHz(RX)<br>WCDMAband II :1930~1990MHz(RX)<br>WCDMAband IV:2110~2155MHz(RX)<br>WCDMAband V: 869~894MHz(RX)<br>WCDMAband VIII: 925~960MHz(RX)<br>LTE B1: 2110~2170MHz(RX)<br>LTE B2: 1930~1990MHz(RX)<br>LTE B3: 1805~1880MHz(RX)<br>LTE B4: 2110~2155MHz(RX)<br>LTE B5: 869~894MHzMHz(RX)<br>LTE B7: 2620~2690MHz(RX)                                                                                                                                                                                                                                                                                                                                                    |

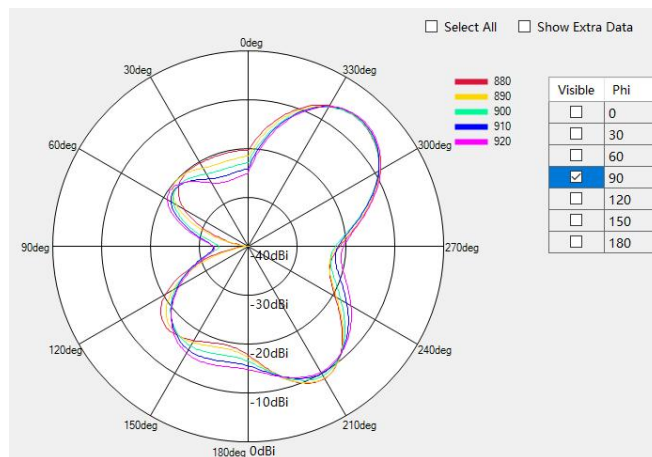
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              | <p>LTE B8: 925~960MHz(RX)</p> <p>LTE B12: 729~746MHz(RX)</p> <p>LTE B17: 734~746MHz(RX)</p> <p>LTE B20: 791~821MHz(RX)</p> <p>LTE B28AB: 758~803MHz(RX)</p> <p>LTE B38: 2570~2620MHz(RX)</p> <p>LTE B40: 2300~2400MHz(RX)</p> <p>LTE B41: 2565~2645MHz(RX)</p> <p>LTE B66: 2110~2200MHz(RX)</p>                                                                                                                                                                                                                                                                                                                                                |
| RF-Output Power<br>(E.I.R.P) | <p>GSM850: 33+/-2dBm</p> <p>GSM900: 33+/-2dBm</p> <p>DCS1800:30+/-2dBm</p> <p>PCS1900:30+/-2dBm</p> <p>WCDMA 850: 22.5+/-2dBm</p> <p>WCDMA 900: 22.5+/-2dBm</p> <p>WCDMA 1800: 22.5+/-2dBm</p> <p>WCDMA 1900: 22.5+/-2dBm</p> <p>WCDMA 2100: 22.5+/-2dBm</p> <p>LTE B1:22+/-2dBm</p> <p>LTE B2:22+/-2dBm</p> <p>LTE B3:22+/-2dBm</p> <p>LTE B4:22+/-2dBm</p> <p>LTE B5:22+/-2dBm</p> <p>LTE B7:22+/-2dBm</p> <p>LTE B8:22+/-2dBm</p> <p>LTE B12:22+/-2dBm</p> <p>LTE B17:22+/-2dBm</p> <p>LTE B20:22+/-2dBm</p> <p>LTE B28AB:22+/-2dBm</p> <p>LTE B38:22+/-2dBm</p> <p>LTE B40:22+/-2dBm</p> <p>LTE B41:22+/-2dBm</p> <p>LTE B66:22+/-2dBm</p> |
| Antenna Gain                 | <p>GSM850: -5.83dBi</p> <p>GSM900: -5.09dBi</p> <p>DCS1800: -3.66dBi</p> <p>PCS1900: -2.30dBi</p> <p>WCDMA 850: -5.83 dBi</p> <p>WCDMA 900: -5.36dBi</p> <p>WCDMA 1800: -3.66dBi</p> <p>WCDMA 1900: -2.30dBi</p> <p>WCDMA 2100:-1.33 dBi</p> <p>LTE B1:-1.33 dBi</p> <p>LTE B2: -2.30 dBi</p> <p>LTE B3: -3.66 dBi</p> <p>LTE B4: -3.66dBi</p> <p>LTE B5: -5.83 dBi</p>                                                                                                                                                                                                                                                                        |

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | LTE B7: -3.12dBi<br>LTE B8:-5.36 dBi<br>LTE B12: -4.87dBi<br>LTE B17: 4.87dBi<br>LTE B20: -5.83dBi<br>LTE B28AB:-5.20dBi<br>LTE B38: -2.42dBi<br>LTE B40:-4.93dBi<br>LTE B41: -2.42dBi<br>LTE B66: -3.66dBi<br>WIFI 2.4G: -2.09 dBi<br>WIFI 5G:-1.33 dBi<br>GPS: -0.17 dBi<br>BT: -2.09 dBi                                                                                                                                                                                                                                                         |
| Power of antenna:  | GSM850:24.5dBm<br>GSM900:24.5dBm<br>DCS1800:24.9dBm<br>PCS1900:24.9dBm<br>WCDMA 850:15.3dBm<br>WCDMA 900:15.1dBm<br>WCDMA 1800:17.2dBm<br>WCDMA 1900:19.1dBm<br>WCDMA 2100:19.1dBm<br>LTE B1:19.1dBm<br>LTE B2:18.9dBm<br>LTE B3:17.7dBm<br>LTE B4:17.4dBm<br>LTE B5:15.5dBm<br>LTE B7:17.7dBm<br>LTE B8:15.0dBm<br>LTE B12:13.9dBm<br>LTE B17:13.8dBm<br>LTE B20:15.4dBm<br>LTE B28AB:14.2dBm<br>LTE B38:17.8dBm<br>LTE B40:15.0dBm<br>LTE B41:17.3dBm<br>LTE B66:17.4dBm<br>WIFI-11n: 11.5 dBm<br>WIFI-11a:13.3 dBm<br>GPS: -152.1<br>BT: 3.1 dBm |
| Type of Modulation | GMSK/8PSK/QPSK/16QAM/64QAM/GFSK, $\pi/4$ -DQPSK,8DPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

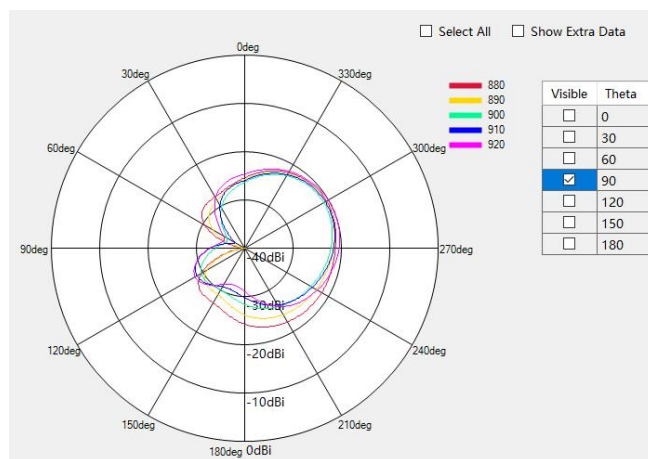
# ※ Antenna Gain ANT2



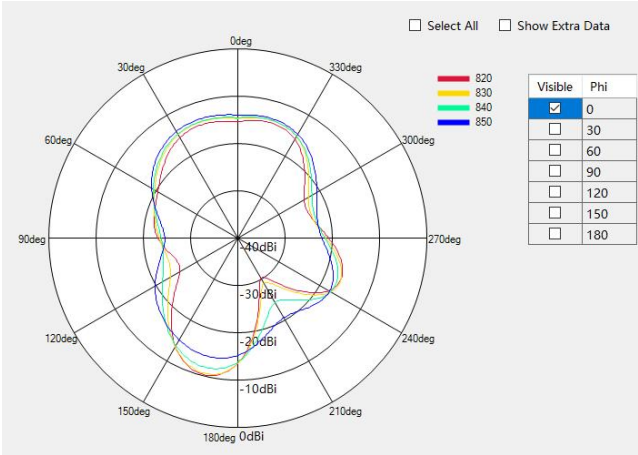
GSM 900 Phi=0deg



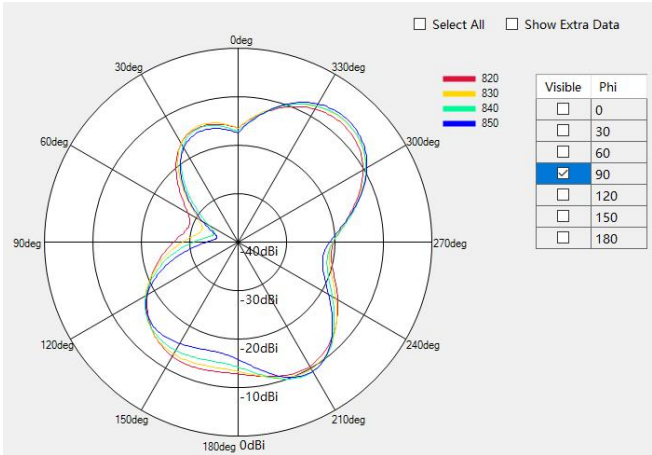
GSM 900 Phi=90deg



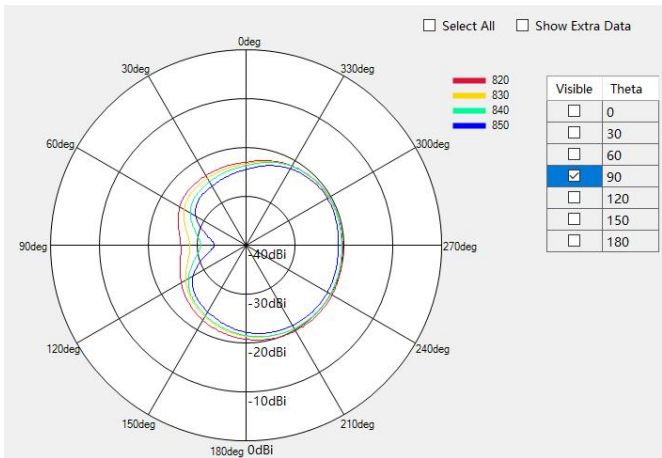
GSM 900 Theta=90deg



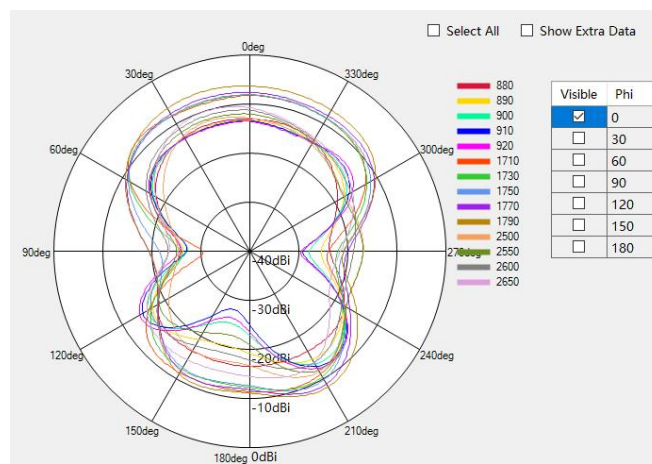
G850/W5/LTE B5/B20 Phi=0deg



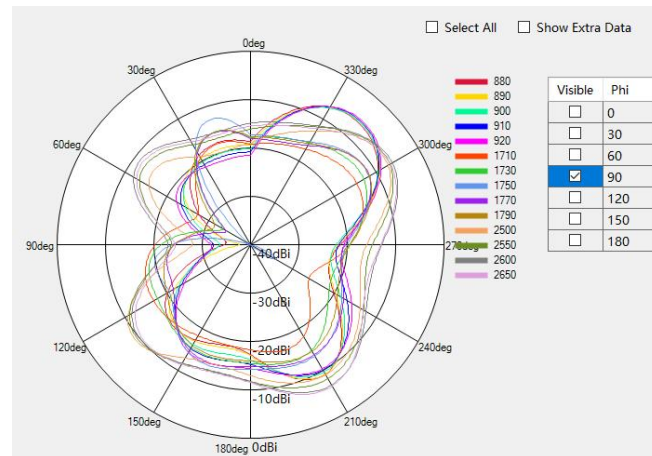
G850/W5/LTE B5/B20 Phi=90deg



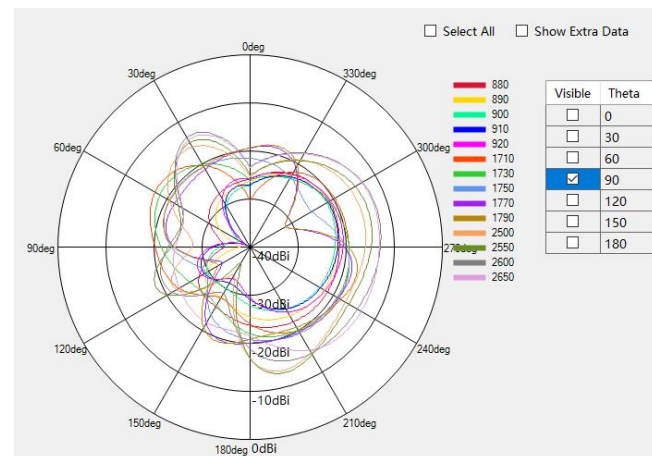
G850/W5/LTE B5/B20 Theta=90deg



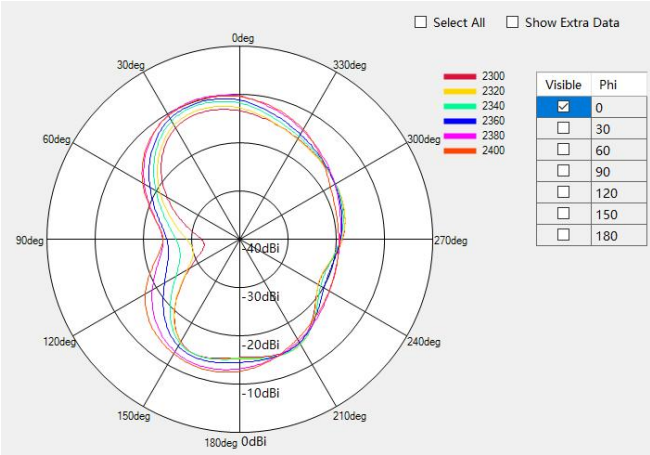
DCS1800/W4/W8/LTE B3/B4/B7/B8B38/B41/B66 Phi=0deg



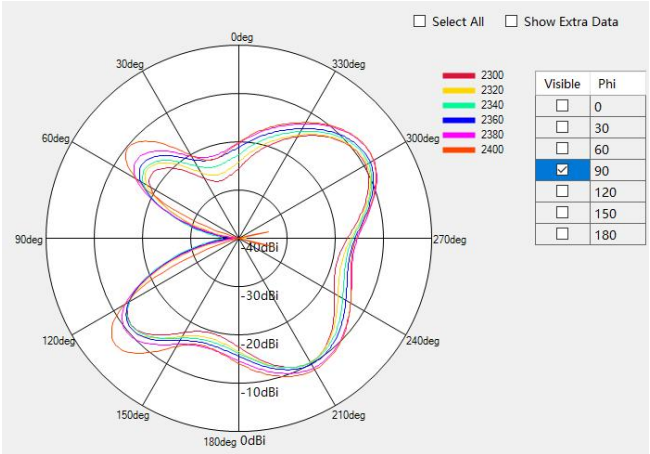
DCS1800/W4/W8/LTE B3/B4/B7/B8B38/B41/B66 Phi=90deg



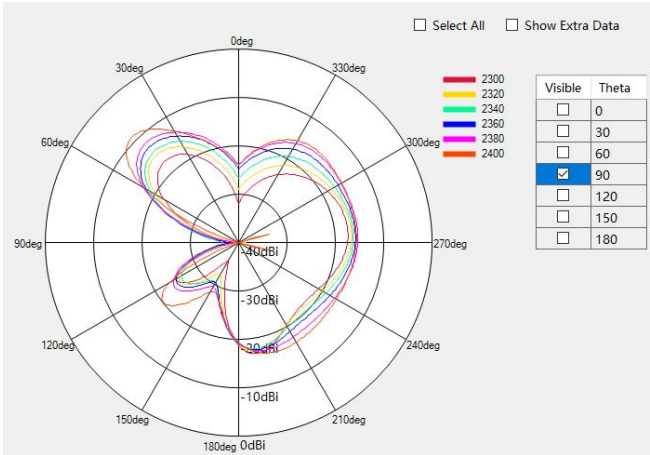
DCS1800/W4/W8/LTE B3/B4/B7/B8B38/B41/B66 Theta=90deg



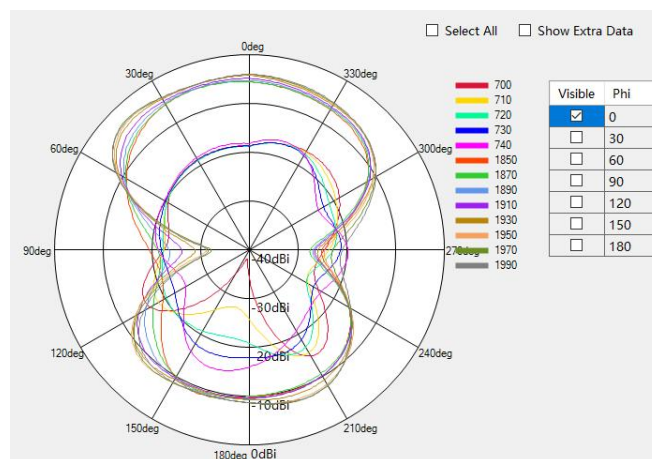
LTE B40 Phi=0deg



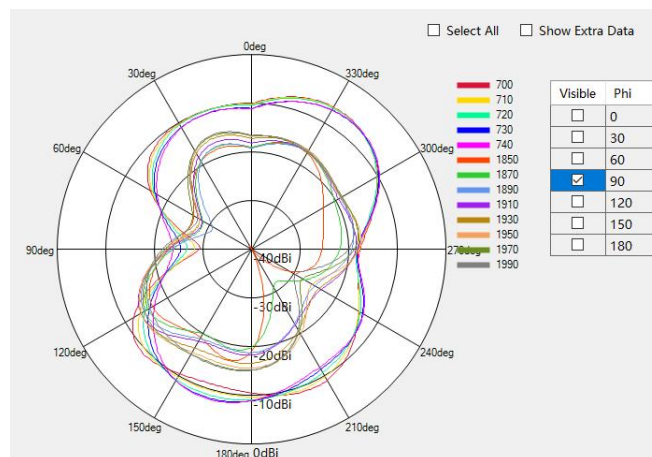
LTE B40 Phi=90deg



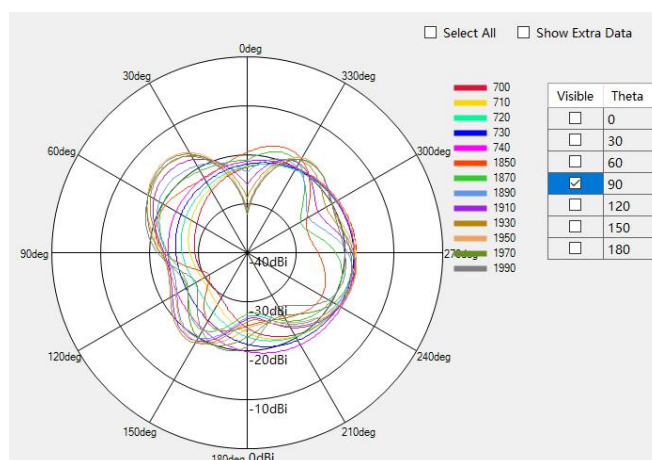
LTE B40 Theta=90deg



PCS1900/W1/W2/LTE B1/B2/B12/B17/B28 Phi=0deg



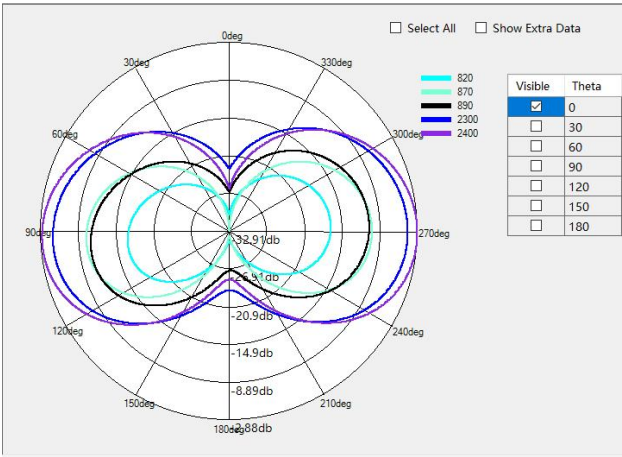
PCS1900/W1/W2/LTE B1/B2/B12/B17/B28 Phi=90deg



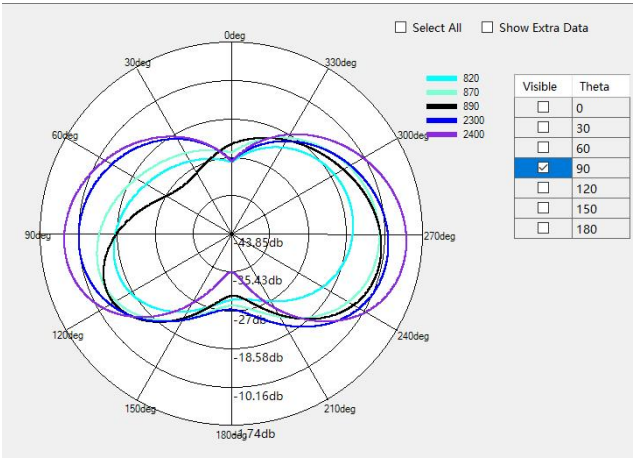
PCS1900/W1/W2/LTE B1/B2/B12/B17/B28 Theta=90deg

※ Antenna Gain

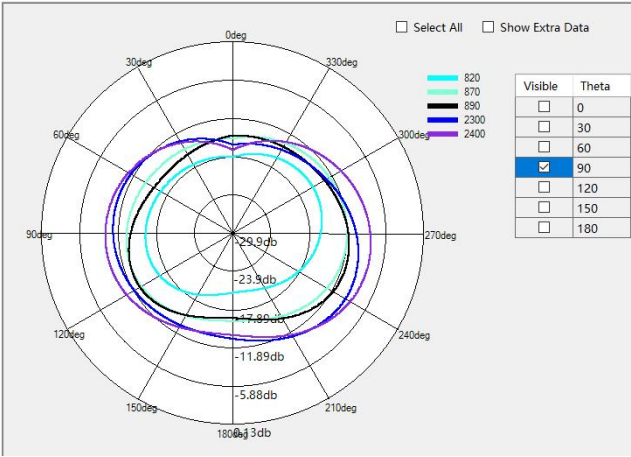
ANT1



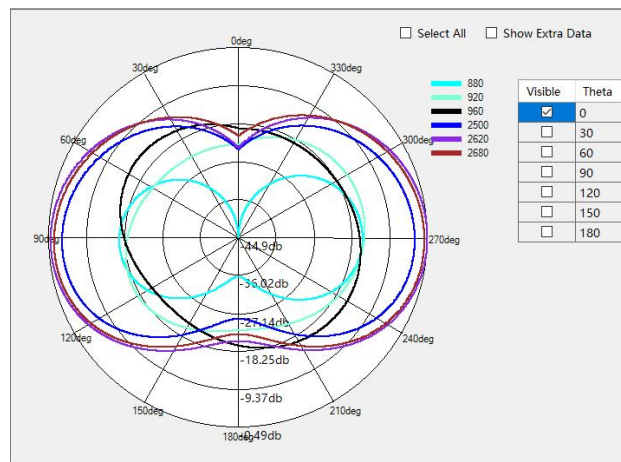
GSM 850/WCDMA W5/LTE/B5/B40 Phi=0deg



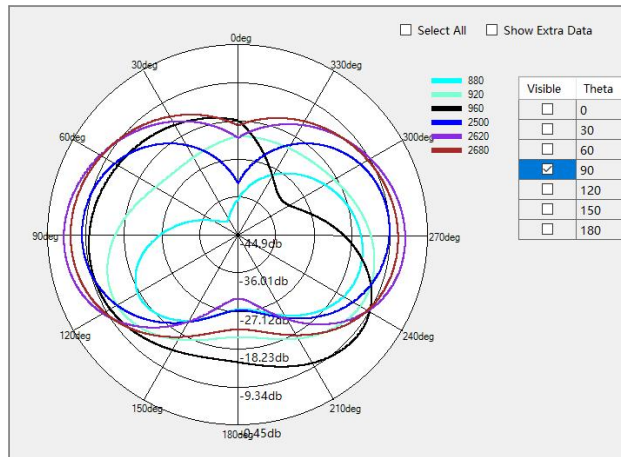
GSM 850/WDCMA W5/LTE/B5/B40 Phi=90deg



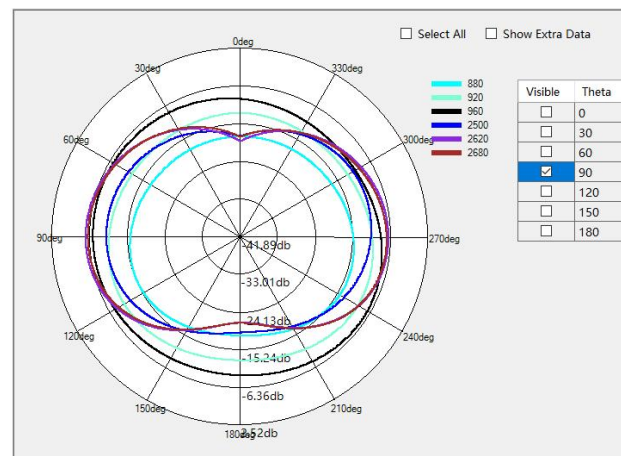
GSM 850/WCDMA W5/LTE/B5/B40 Theta=90deg



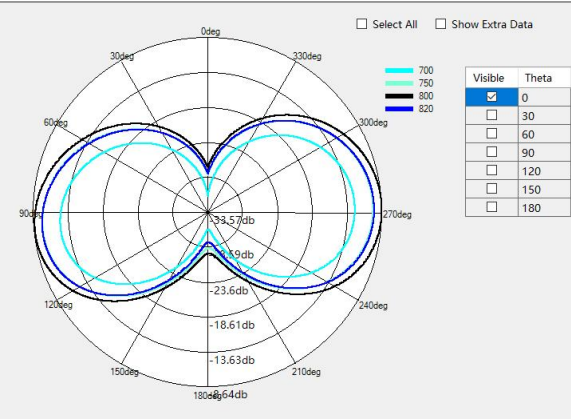
GSM900/WCDMA W8 LTE B8/7/38/41 Phi=0deg



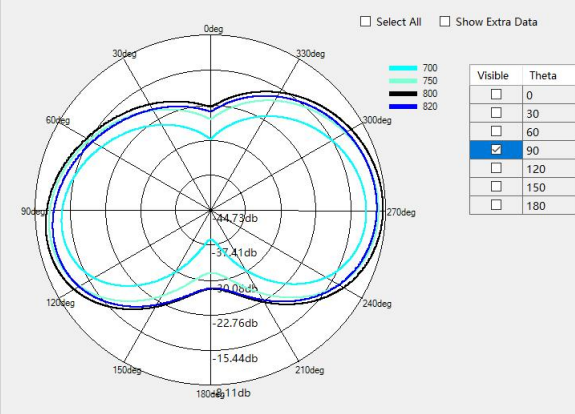
GSM900/WCDMA W8 LTE B8/7/38/41 Phi=90deg



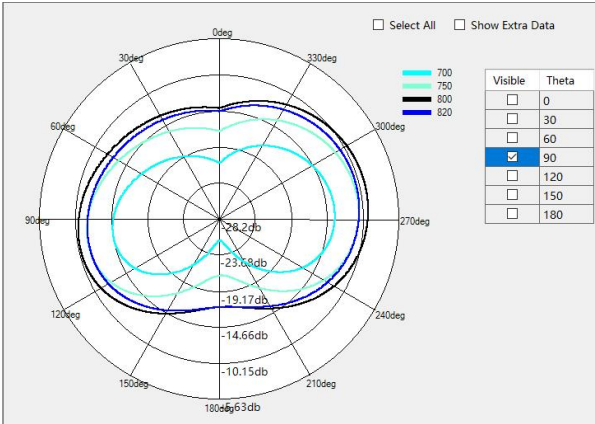
GSM900/WCDMA W8 LTE B8/7/38/41 Theta=90deg



LTE 12/17/28 Phi=0deg



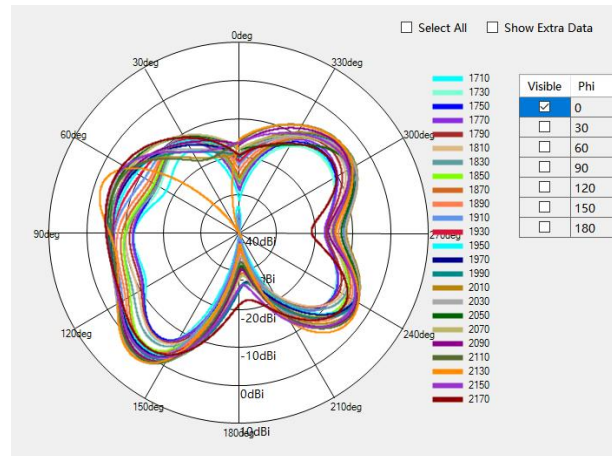
LTE 12/17/28 Phi=90deg



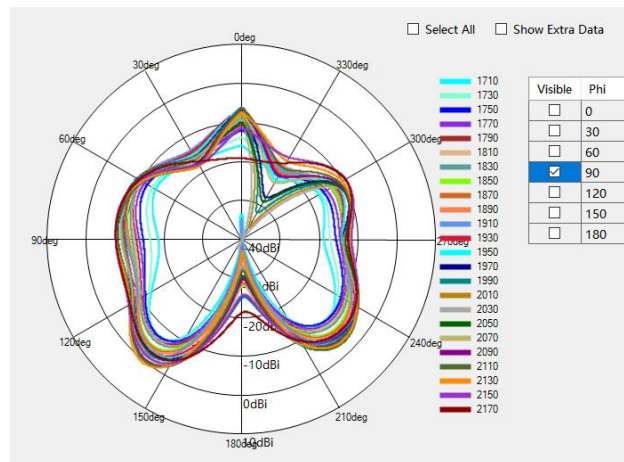
LTE 12/17/28 Theta=90deg

# ※ Antenna Gain

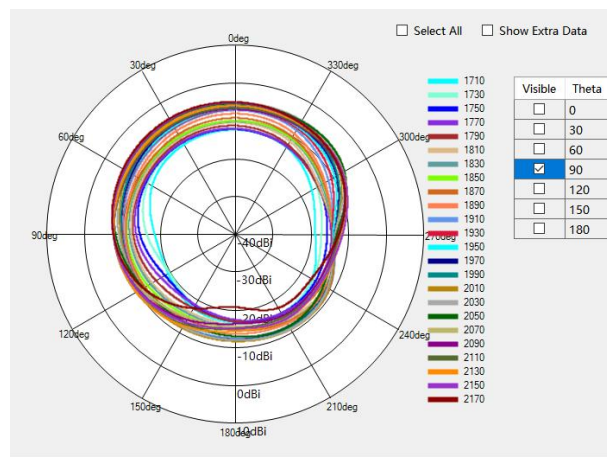
ANT0



GSM1800/1900 WCDMA1/2/4 LTE 1/2/3/4/66  $\Phi=0^\circ$



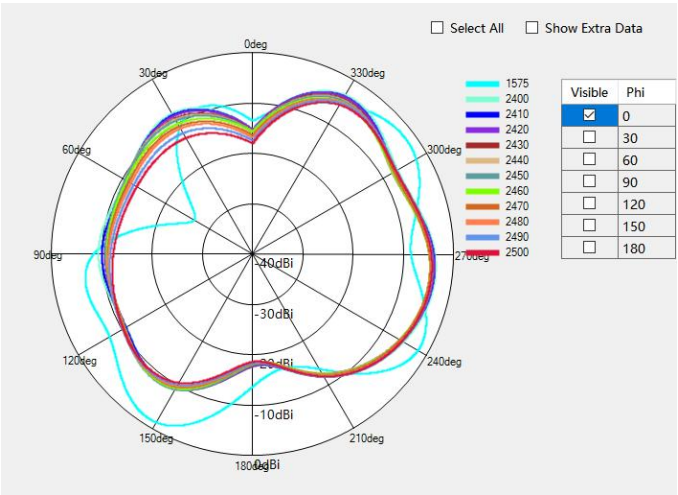
GSM1800/1900 WCDMA1/2/4 LTE 1/2/3/4/66  $\Phi=90^\circ$



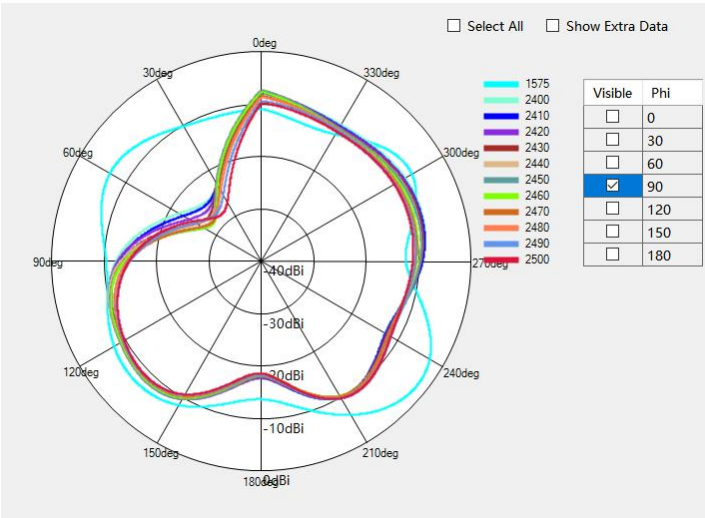
GSM1800/1900 WCDMA1/2/4 LTE 1/2/3/4/66  $\Theta=90^\circ$

※ Antenna Gain

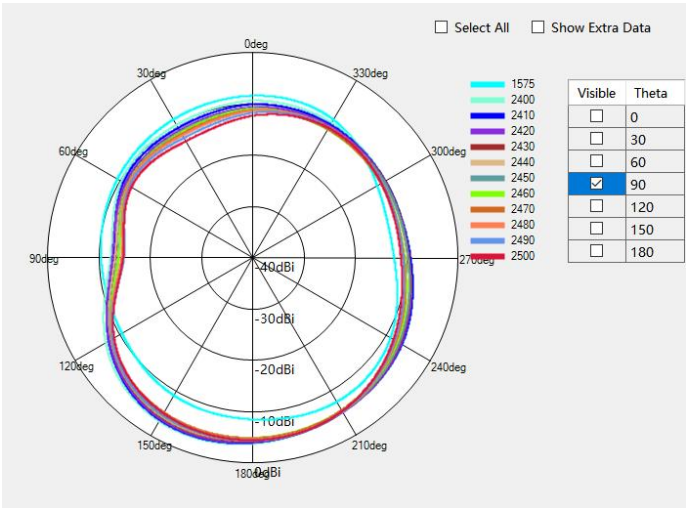
ANT12



GPS 2.4GWIFI Phi=0deg



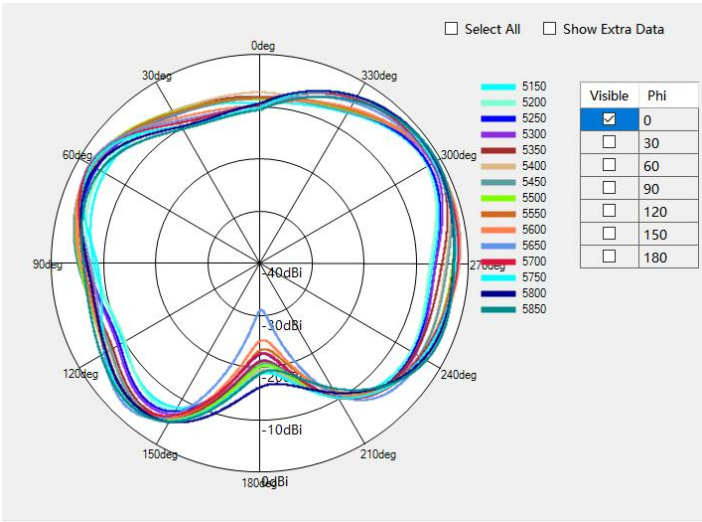
GPS 2.4GWIFI Phi=90deg



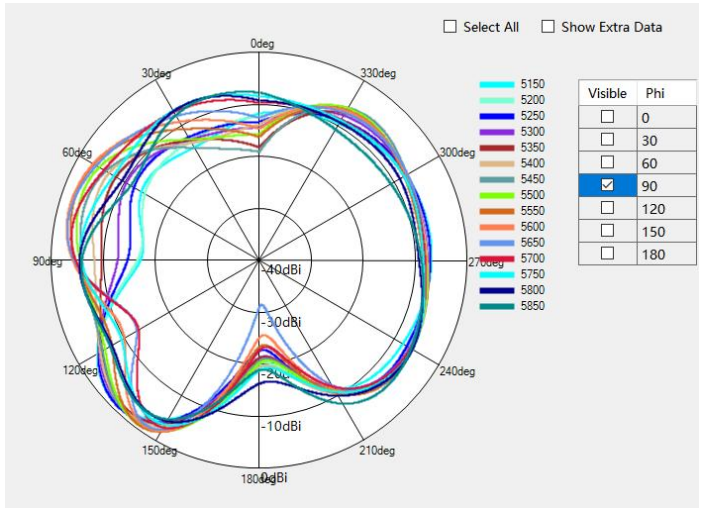
GPS 2.4GWIFI Theat =90deg

※ Antenna Gain

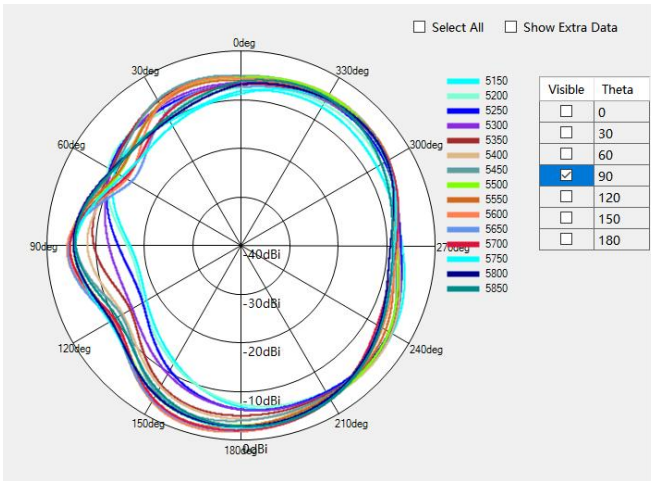
ANT13



5GWIFI Phi=0deg



5GWIFI Phi=90deg



5GWIFI Theat =90deg