

GNSS L1/L2/L5 Gooseneck Active Antenna

MODEL: GA-90R-TNC(M)



1. GENERAL DESCRIPTION

Model No	P/N
GA90R	GA90R-TNC(M)

1.1 Electrical Properties

Parameter	Description
Frequency Band	1582.5±23.5MHz(L1), 1268±12MHz(L2), 1247±5MHz(L2), 1227±5.5MHz(L2), 1207±12MHz(L2) and 1176±12MHz(L5) PS. When covered with a radome and measured on LNA ground plane
Nominal Impedance	50 ohm
Polarization	R.H.C.P
Gain at Zenith	2 dBic typical @ L1; 1 dBic typical @ L2; -2 dBic typical @ L5
Gain at 10° elevation	0 dBic typical @ L1; -2 dBic typical @ L2; -5 dBic typical @ L5
Axial ratio	0.5 dB typical (L1, L2 and L5)
Return Loss	Please See Data-1
V.S.W.R	2.0 : 1

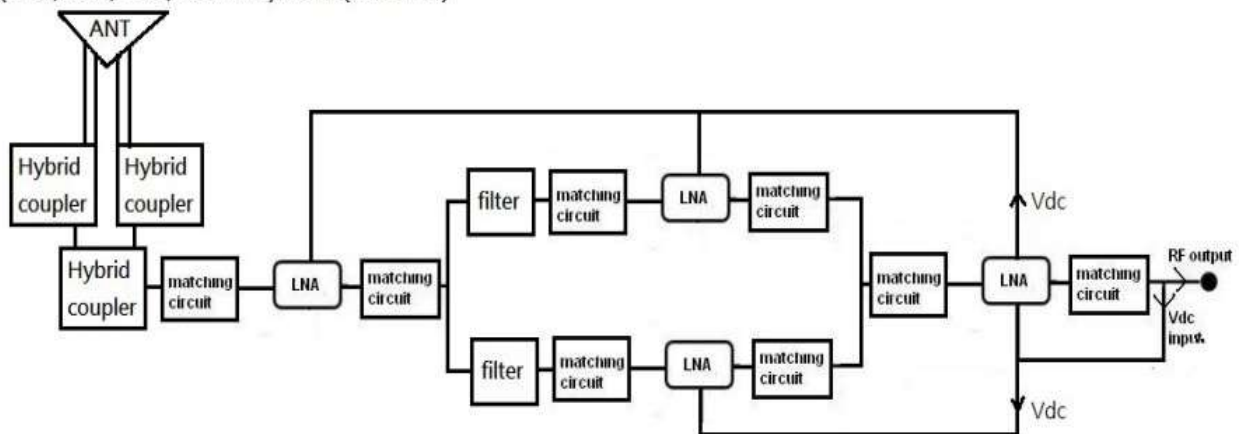
1.2 LNA

Parameter	Description
Working Frequency	1582.5±23.5MHz(L1), 1268±12MHz(L2), 1247±5MHz(L2), 1227±5.5MHz(L2), 1207±12MHz(L2) and 1176±12MHz(L5)

Gain	36±3 dB typical at 3.3V (L1, L2 and L5)
Noise Figure	1.5 dB typical at 3.3V (L1, L2 and L5)
Filter (Out of band attenuation)	Saw filter 30dB typical fo±50MHz 40dB typical fo±100MHz (fo=L1,L2~L5 band)
Impedance	50 Ω
Output V.S.W.R	2.0 max
Input Voltage	DC = 3~16V
Current	DC =16±5mA at 3V~16V

Block diagram:

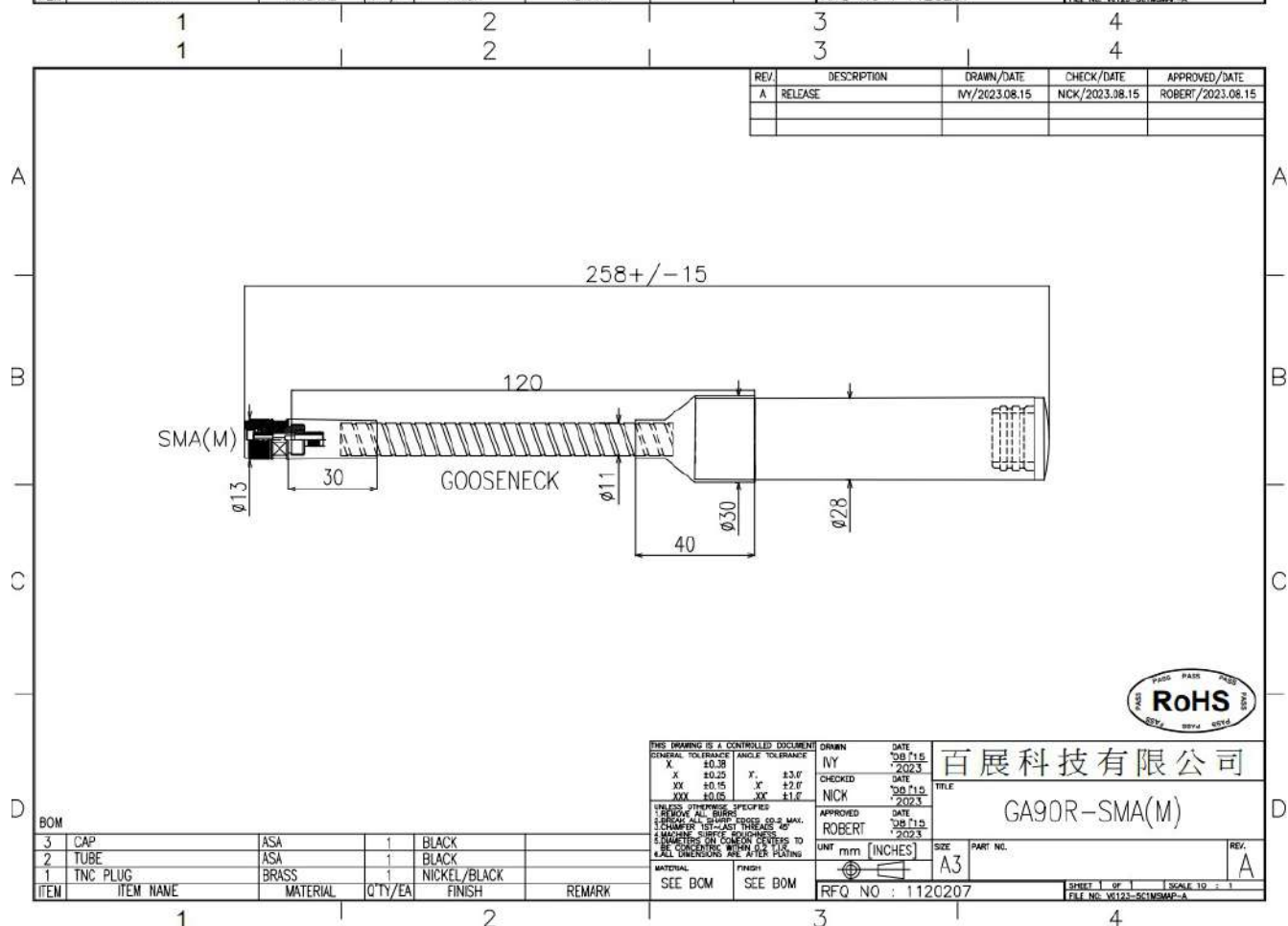
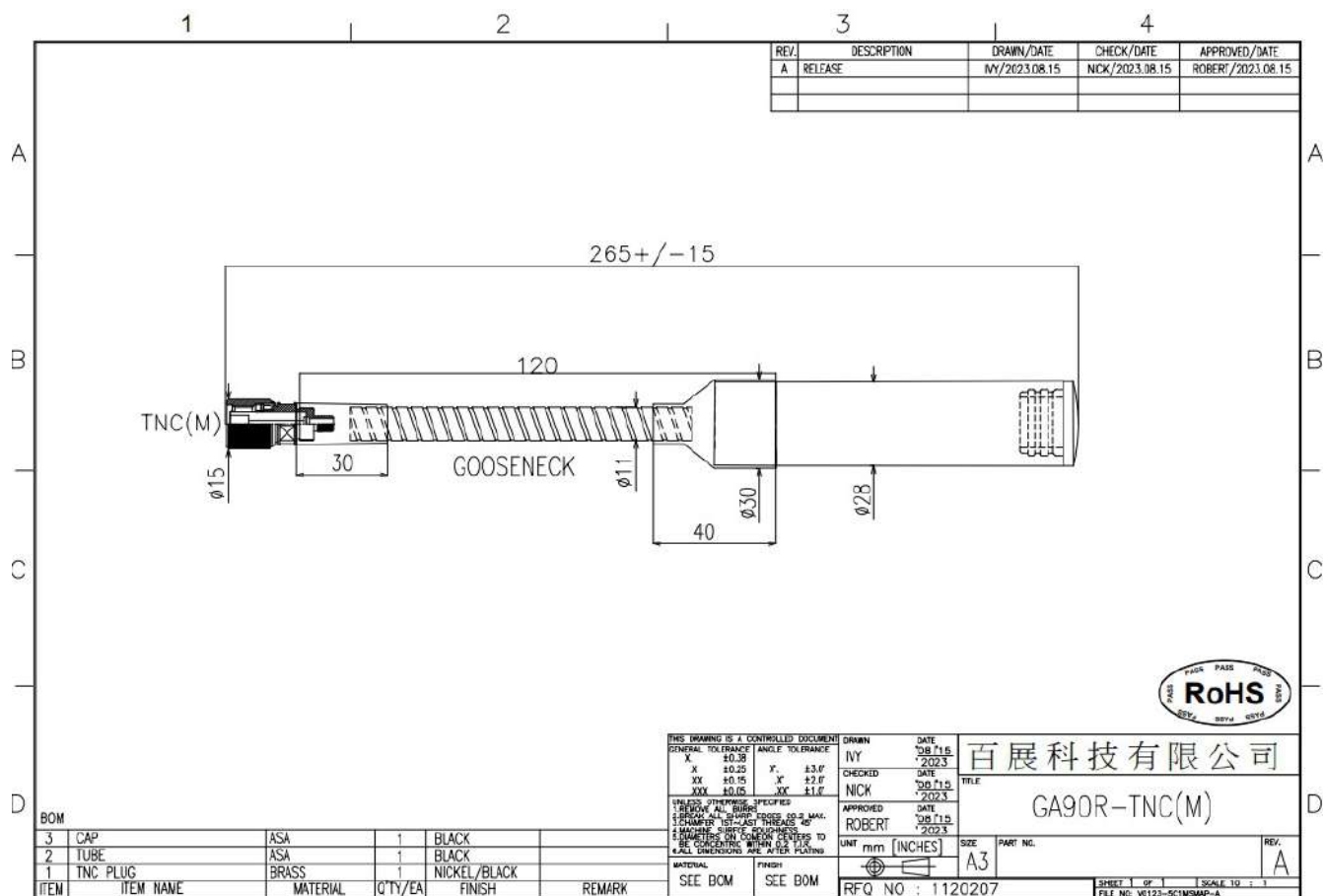
L1, L2(1207/1227/1246/1268MHz) and L5(1176MHz)



1.3 Mechanical Properties

Parameter	Description
Antenna Type	External Antenna
Touch Type	Screw Type
Connector Type	TNC(Male) OR SMA(M)
Antenna Dimensions	265mm ±15 & 258mm+/-15
Antenna Color	Black
Operating Temperature Range	-40°C~+85°C
Storage Temperature Range	-40°C~+85°C

2. Appearance



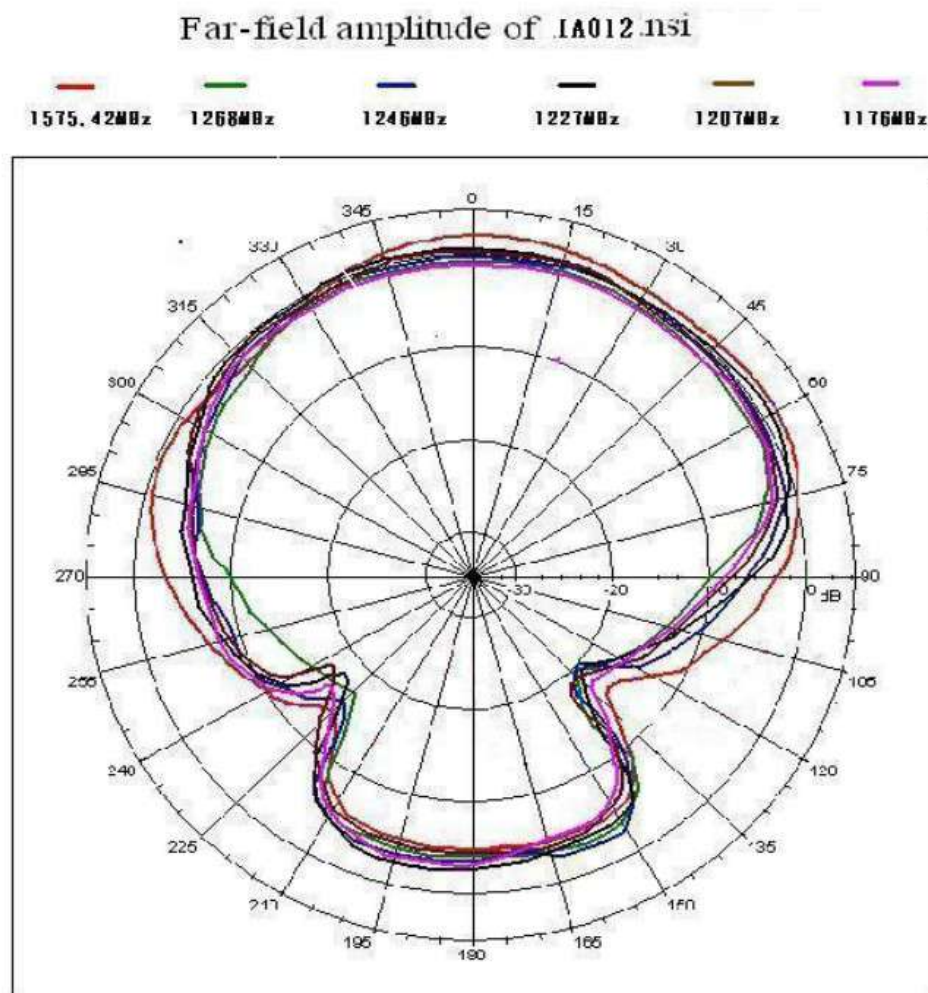
3. Frequency Passive antenna S11



LNA Gain S21

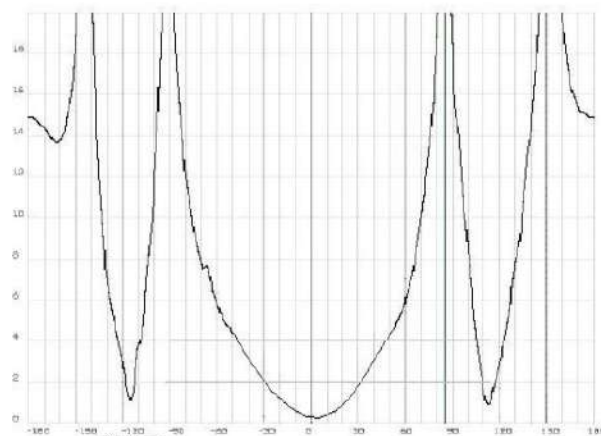
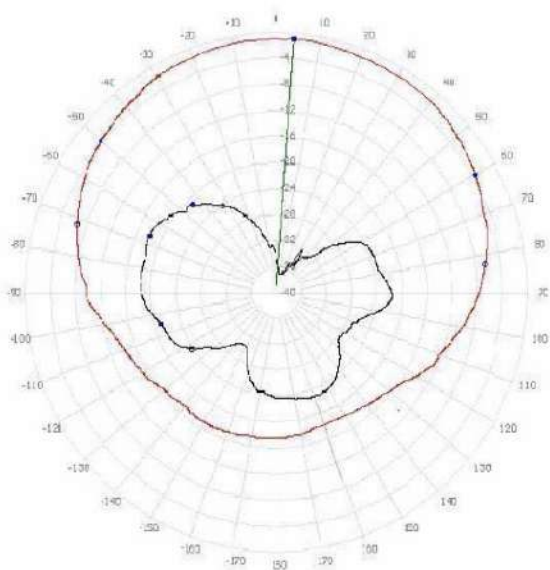


Radiation Pattern(for antenna):

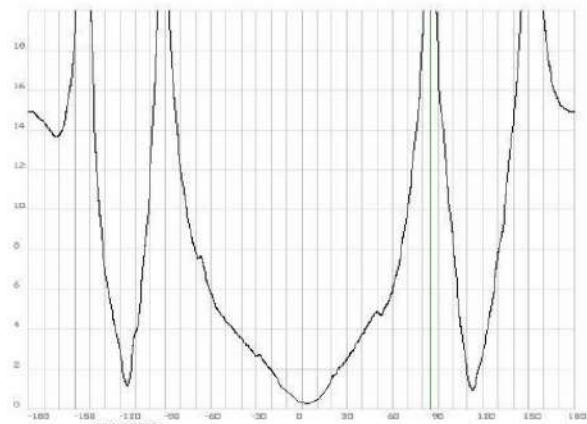
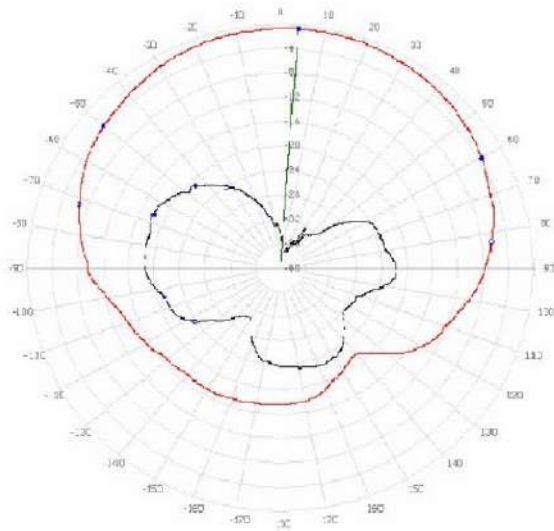


PS: Total Gain = Radiation Pattern (exclude LNA Gain from IA012) + LNA Gain - cable loss (1.1dB/m)

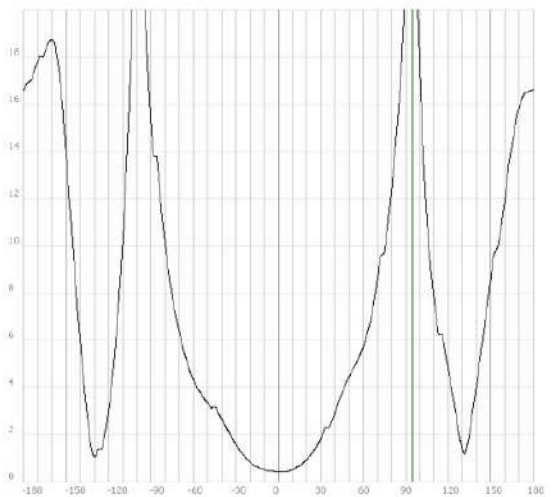
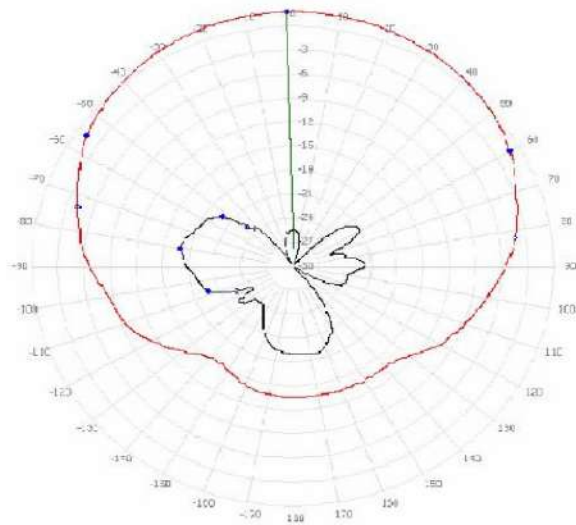
頻點1176MHz 增益、轴比和3dB波束宽度: -1.51dBi和0.41dB和113deg



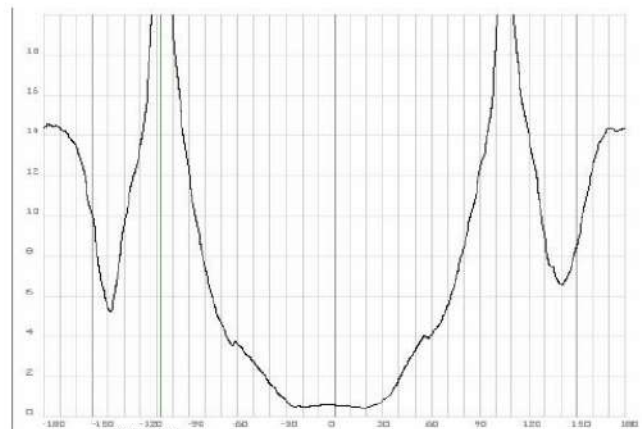
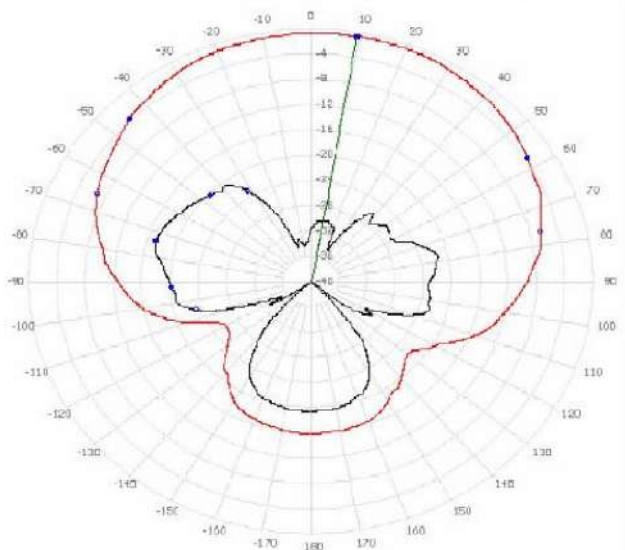
頻點1207MHz 增益、軸比和3dB波束寬度：-0.62dBi和0.35dB和112.5deg



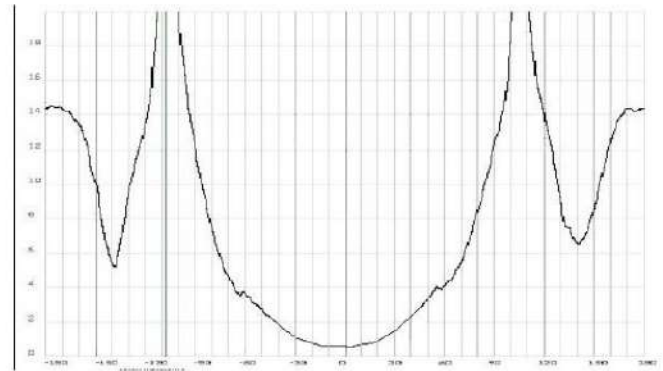
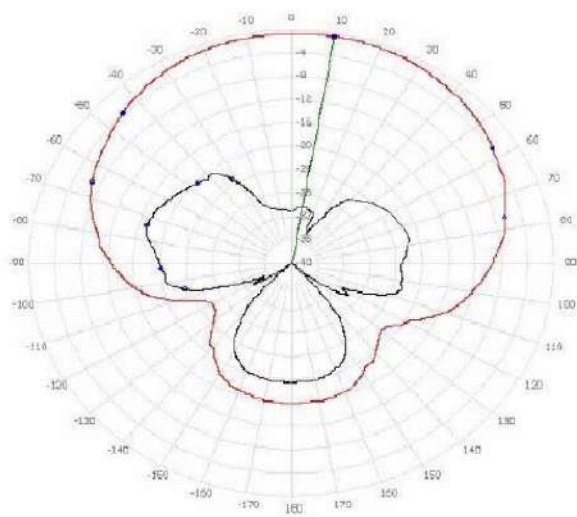
頻點1227MHz 增益、軸比和3dB波束寬度：1.84dBi、0.52dB和115deg



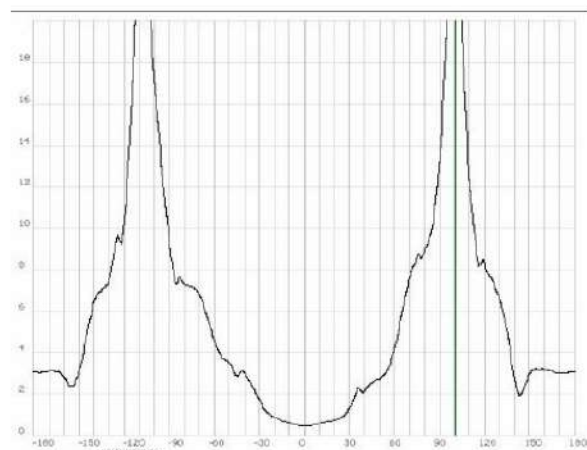
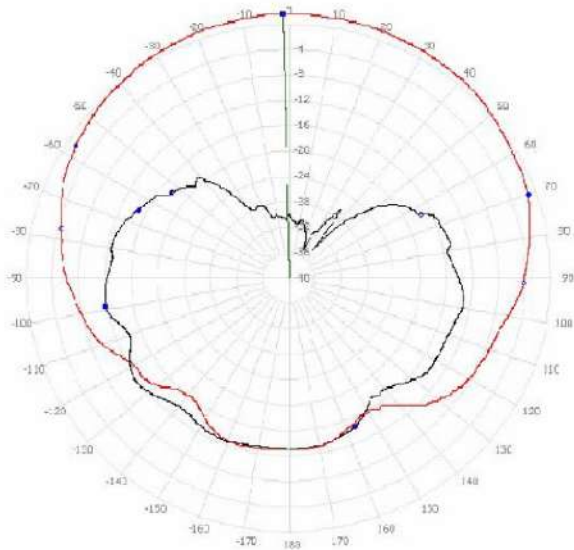
頻點1246MHz 增益、軸比和3dB波束寬度：-1.01dBi和0.50dB和101deg



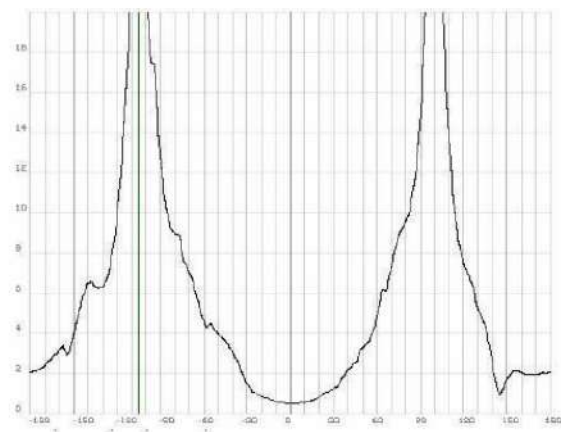
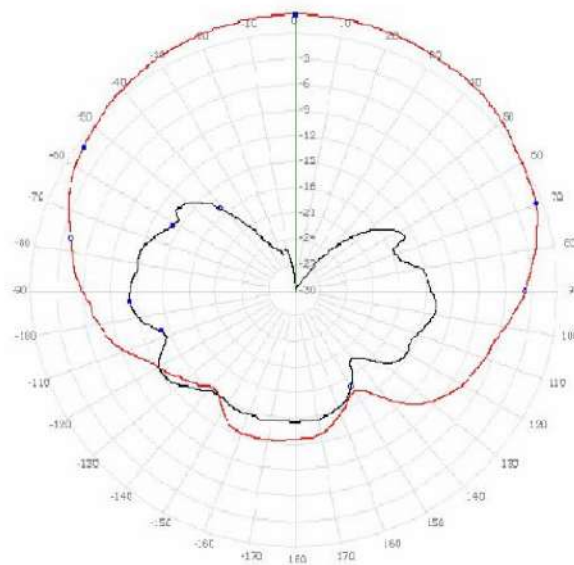
頻點1268MHz 增益、軸比和3dB波束寬度：-0.66dBi和0.51dB和102deg



頻點1561MHz 增益、軸比和3dB波束寬度：1.57dBi和0.45dB和127deg



頻點1575.42MHz 增益、軸比和3dB波束寬度：2.20dBi和0.49dB和128deg



頻點1602MHz 增益、軸比和3dB波束寬度：0.60dBi和0.34dB和151deg

