



深圳市拓频物联技术有限公司
SHENZHEN FREQUENCY EXTENSION IOT TECHNOLOGY CO.,LTD.

优克联-X103 Antenna report
Model: MAIN Antenne, Diversity Antenna, WIFI 2.4G Antenna

Manufacturer: UCLLOUDLINK (SINGAPORE) PTE.LTD

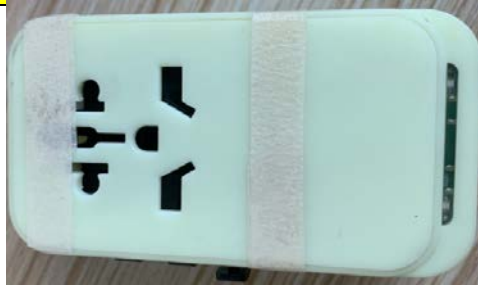
Address: 80 ROBINSON ROAD #02-00 SINGAPORE

日期: 2024-05-09

RF: 李东海

手机: 152 1775 5516

(一) 项目图



(二) Antenna matching circuit

(1) MAIN Ant.

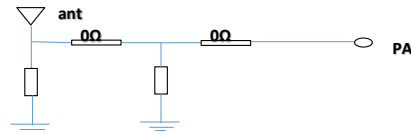
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(2) DIV Ant.

无更改

(3) WIFI Ant.

无更改



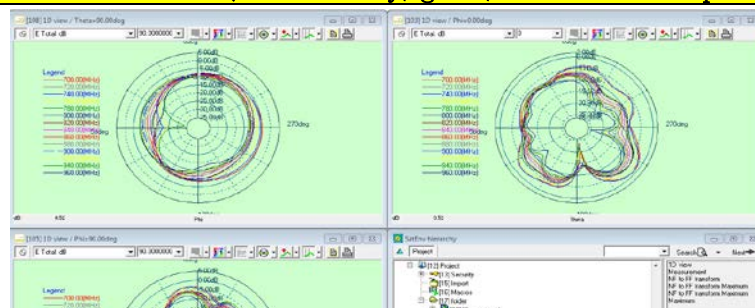
(三) MAIN Ant.-Passive standing wave diagram: (SWR/Log Mag /Smith)



(四) MAIN Ant.-Passive data: (efficiency/gain/directional pattern)

700-960MHZ Efficiency

Frequency	Efficiency	Gain. dBi
700MHz	27%	0.98
720MHz	28%	1.26
740MHz	26%	1.09
760MHz	22%	0.26
780MHz	14%	-1.58
800MHz	15%	-1.71
820MHz	15%	-2.08
840MHz	12%	-3.22
860MHz	11%	-3.84
880MHz	11%	-4.23

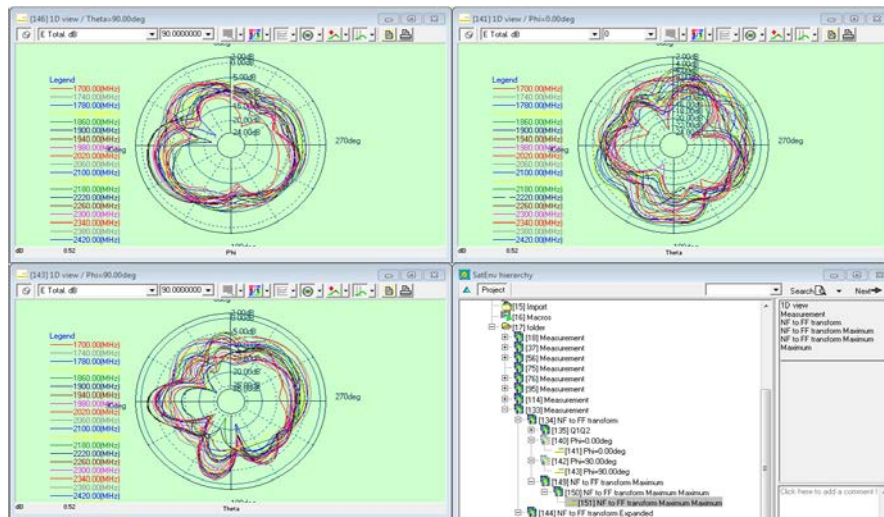


900MHz	11%	-4.41
920MHz	11%	-4.21
940MHz	12%	-4.17
960MHz	9%	-5.16

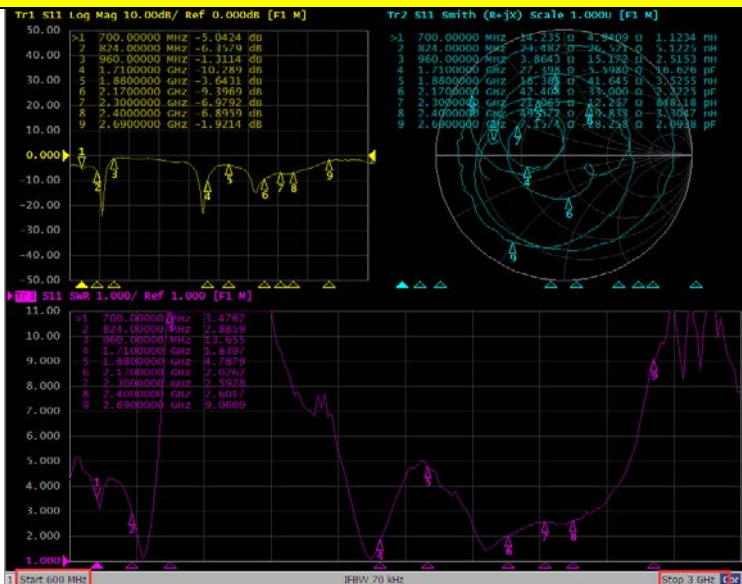


1700-2700MHZ Efficiency

Frequency	Efficiency	Gain, dBi
1700MHz	19%	-1.93
1740MHz	22%	-1.60
1780MHz	24%	-2.08
1820MHz	27%	-2.41
1860MHz	27%	-0.79
1900MHz	26%	-0.41
1940MHz	26%	-0.14
1980MHz	25%	-0.71
2020MHz	28%	-1.77
2060MHz	30%	-1.01
2100MHz	26%	-2.31
2140MHz	24%	-3.24
2180MHz	23%	-3.31
2220MHz	21%	-3.13
2260MHz	20%	-2.82
2300MHz	19%	-2.62
2340MHz	19%	-2.86
2380MHz	19%	-3.04
2420MHz	20%	-3.46
2460MHz	20%	-4.00
2500MHz	20%	-6.00
2540MHz	21%	-4.32
2580MHz	21%	-3.93
2620MHz	22%	-3.30
2660MHz	24%	-2.54
2700MHz	26%	-1.71



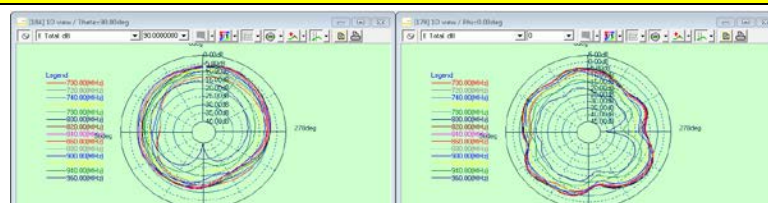
(五) Diversity antenna - passive standing wave diagram: (SWR/Log Mag /Smith)



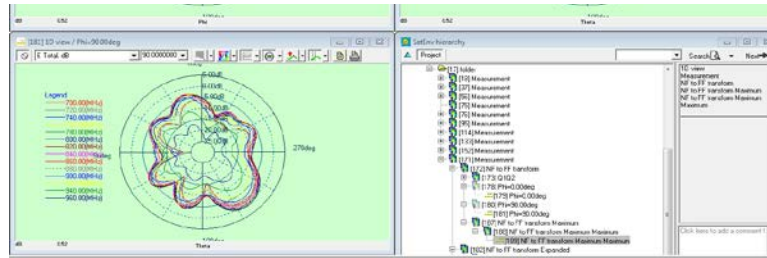
(六) Diversity Antenna - Passive Data: (Efficiency/Gain/Pattern)

700-960MHZ Efficiency

Frequency	Efficiency	Gain, dBi
700MHz	14%	-1.95
720MHz	15%	-1.41
740MHz	22%	0.22
760MHz	26%	0.92
780MHz	28%	1.12
800MHz	28%	0.82

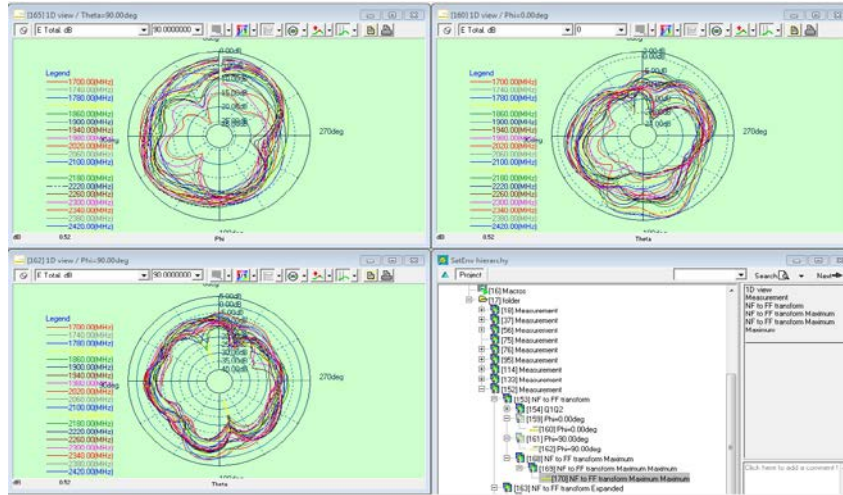


820MHz	27%	0.35
840MHz	25%	-0.22
860MHz	24%	-0.56
880MHz	22%	-1.08
900MHz	17%	-1.90
920MHz	10%	-4.14
940MHz	4%	-7.79
960MHz	2%	-12.40

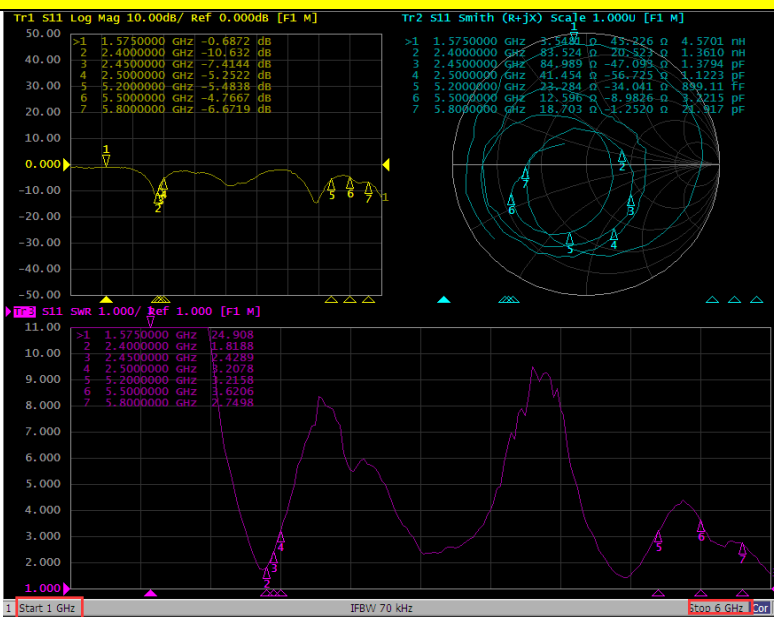


1700-2700MHZ Efficiency

1700MHz	19%	1.55
1740MHz	22%	2.07
1780MHz	23%	2.04
1820MHz	23%	0.55
1860MHz	22%	-1.45
1900MHz	19%	-1.86
1940MHz	19%	-2.62
1980MHz	19%	-2.23
2020MHz	18%	-2.81
2060MHz	18%	-2.40
2100MHz	15%	-3.14
2140MHz	17%	-2.60
2180MHz	19%	-2.46
2220MHz	19%	-2.21
2260MHz	18%	-2.25
2300MHz	17%	-2.67
2340MHz	16%	-3.26
2380MHz	14%	-3.75
2420MHz	12%	-4.44
2460MHz	10%	-5.49
2500MHz	9%	-5.99
2540MHz	7%	-5.92
2580MHz	6%	-6.13
2620MHz	6%	-6.10
2660MHz	5%	-7.85
2700MHz	5%	-8.67



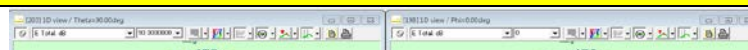
(七) WIFI-2.4G Ant. -Passive standing wave diagram: (SWR/Log Mag /Smith)



(八) WIFI-2.4G Ant. -Passive debugging data: (efficiency/gain/directional pattern)

2400-2500MHZ Efficiency

Frequency	Efficiency	Gain, dBi
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2400MHz	29%	-1.44
2410MHz	28%	-1.51
2420MHz	28%	-1.55
2430MHz	28%	-1.62
2440MHz	27%	-1.88
2450MHz	26%	-1.91
2460MHz	26%	-1.86
2470MHz	25%	-2.27
2480MHz	24%	-2.44
2490MHz	24%	-2.24
2500MHz	23%	-2.61

