

Antenna Test Report



Customer	chuangyuan	Project name	H258-CW107
Band	G850/900/1800/1900, W1/2/4/5/8, LTE:1/2/3/4/5/7/8/12/17/ 20/28A/28B/34/38/39/40/ 41	MD Type	FPC+LDS

Fs OTA:

Band	Channal	TRP (dBm)	TIS (dBm)	Band	Channal	TRP (dBm)	TIS (dBm)
GSM900	L	27.8		DCS1800	L	25.5	
	M	27.5			M	25.7	
	H	27.5	-102.0		H	25.3	-103.0
GSM850	L	27.3		PCS1900	L	25.4	
	M	27.3			M	25.5	
	H	27.6	-103.3		H	25.0	-103.2
W850	L	18.2		W900	L	18.5	
	M	18.0			M	18.1	
	H	18.3	-104.7		H	18.0	-104.3
W1700	L	18.4		W1900	L	18.2	
	M	18.5			M	18.5	
	H	18.5	-104.8		H	18.3	-104.6
W2100	L	18.5		LTE-B1 (10MHZ)	L	17.5	
	M	18.0			M	17.2	
	H	17.4	-104.2		H	17.1	-93.5
LTE-B2 (10MHZ)	L	17.9		LTE-B3 (20MHZ)	L	17.5	
	M	17.8			M	17.6	
	H	17.6	-93.0		H	17.5	-92.0
LTE-B4 (10MHZ)	L	17.4		LTE-B5 (10MHZ)	L	18.3	
	M	17.1			M	17.5	
	H	17.5	-92.5		H	18.1	-92.3
LTE-B7 (10MHZ)	L	17.3		LTE-B8 (10MHZ)	L	18.0	
	M	17.3			M	17.4	
	H	17.4	-91.5		H	17.2	-90.3
LTE-B12 (10MHZ)	L	17.7		LTE-B17 (10MHZ)	L	17.7	
	M	17.8			M	17.8	
	H	17.8	-92.3		H	17.7	-92.2
LTE-B20 (10MHZ)	L	17.7		LTE-B28A (10MHZ)	L	17.7	
	M	18.4			M	17.8	
	H	18.3	-92.3		H	17.9	-92.0

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Band	Channal	TRP (dBm)	TIS (dBm)	Band	Channal	TRP (dBm)	TIS (dBm)
LTE-B28B (10MHZ)	L	17.8		LTE-B34 (10MHZ)	L	17.1	
	M	17.9			M	17.1	
	H	17.9	-92.4		H	17.0	-93.6
LTE-B38 (20MHZ)	L	17.8		LTE-B39 (20MHZ)	L	17.7	
	M	18.2			M	17.5	
	H	18.2	-91.5		H	17.3	-91.2
LTE-B40 (20MHZ)	L	17.5		LTE-B41 (20MHZ)	L	17.8	
	M	17.4			M	18.0	
	H	17.7	-91.5		H	17.8	-91.1



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WiFi OTA

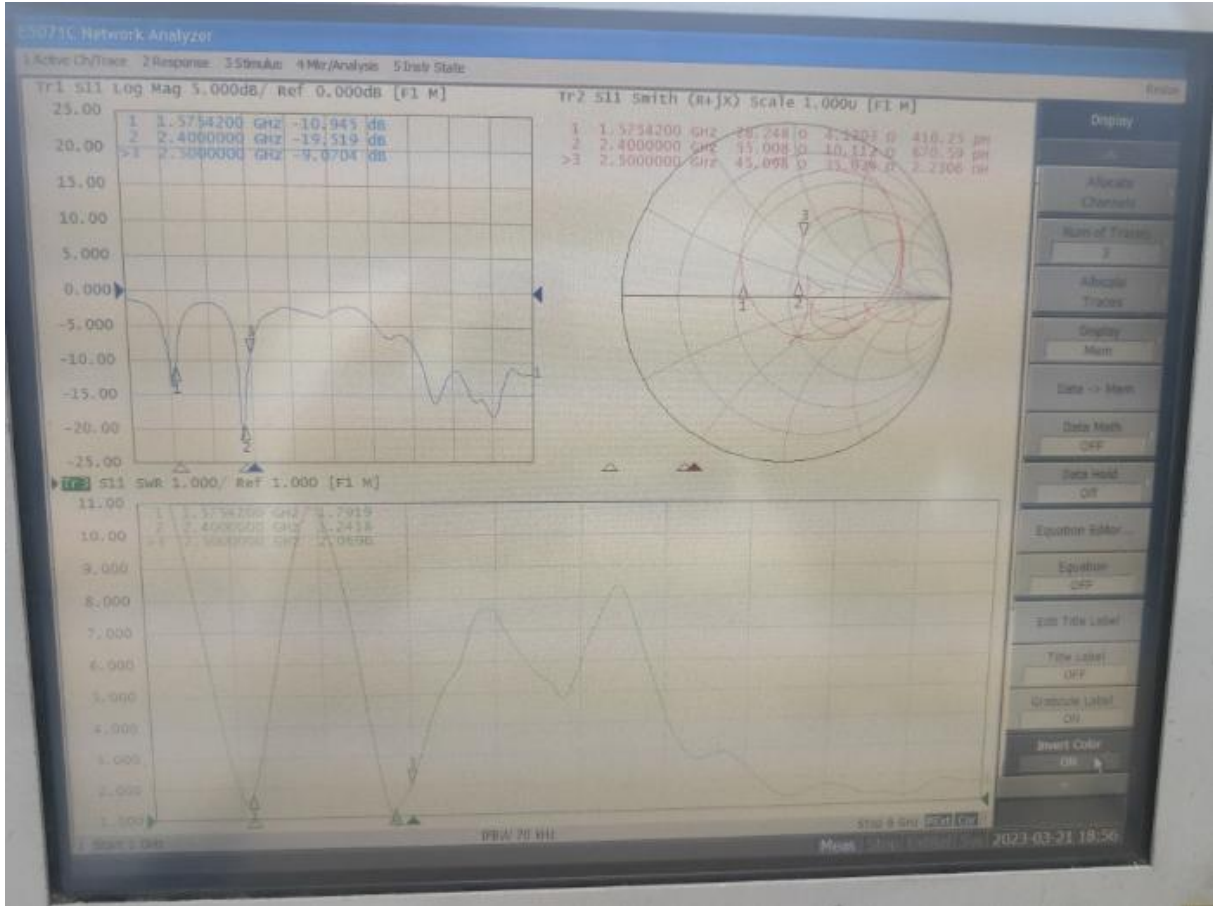
Band	Channa1	TRP (dBm)	TIS (dBm)	Band	Channa1	TRP (dBm)	TIS (dBm)
WIFI-2.4 G B-11M	1	13.1	-81.1	WIFI-5G A-54M	36	11.2	-69.6
	6	13.0	-81.0		64	9.4	-68.3
	13	13.0	-82.5		165	13.3	-72.1

Electrical performance

Passive result

VSWR & Return Loss-GPS/2.4g wifi/bt antenna

VSWR & Return Loss test connector: E5071CC network analyzer → Cable → JIG



Freq.(MHz)	1575.42	2400	2500
VSWR	1.7	1.2	2.0
R.L.	-10.9	-19.5	-9.0

VSWR & Return Loss-5g wifi antenna

VSWR & Return Loss test connector: E5071CC network analyzer → Cable → JIG



Freq.(MHz)	5100	5500	5825
VSWR	1.08	1.16	1.78
R.L.	-27.09	-21.78	-10.97

Gain test

	Band	Gain	TYPE
GPS	1575.42MHZ	-3.5dbi	PIFA
BT	2.4-2.4835GHz	1.0dbi	PIFA
2.4G WLAN	2.4-2.4835GHz	1.0dbi	PIFA
5G WLAN	5100-5825MHZ	1.5dbi	PIFA

Test equipment

Equipment information:

SATIMO StarLab 3D Chamber test system
Base Station Emulator CMW-500
Agilent8960
E5071C

VSWR & Smith chart test

Test progress:

- 1、 Use 'start' key and 'stop' key to set up frequency range
- 2、 Calibrate test port of the instrument
- 3、 Connect EUT and instrument with RF cable , and finish VSWR & Return Loss & Smith chart
- 4、 Export and save test result

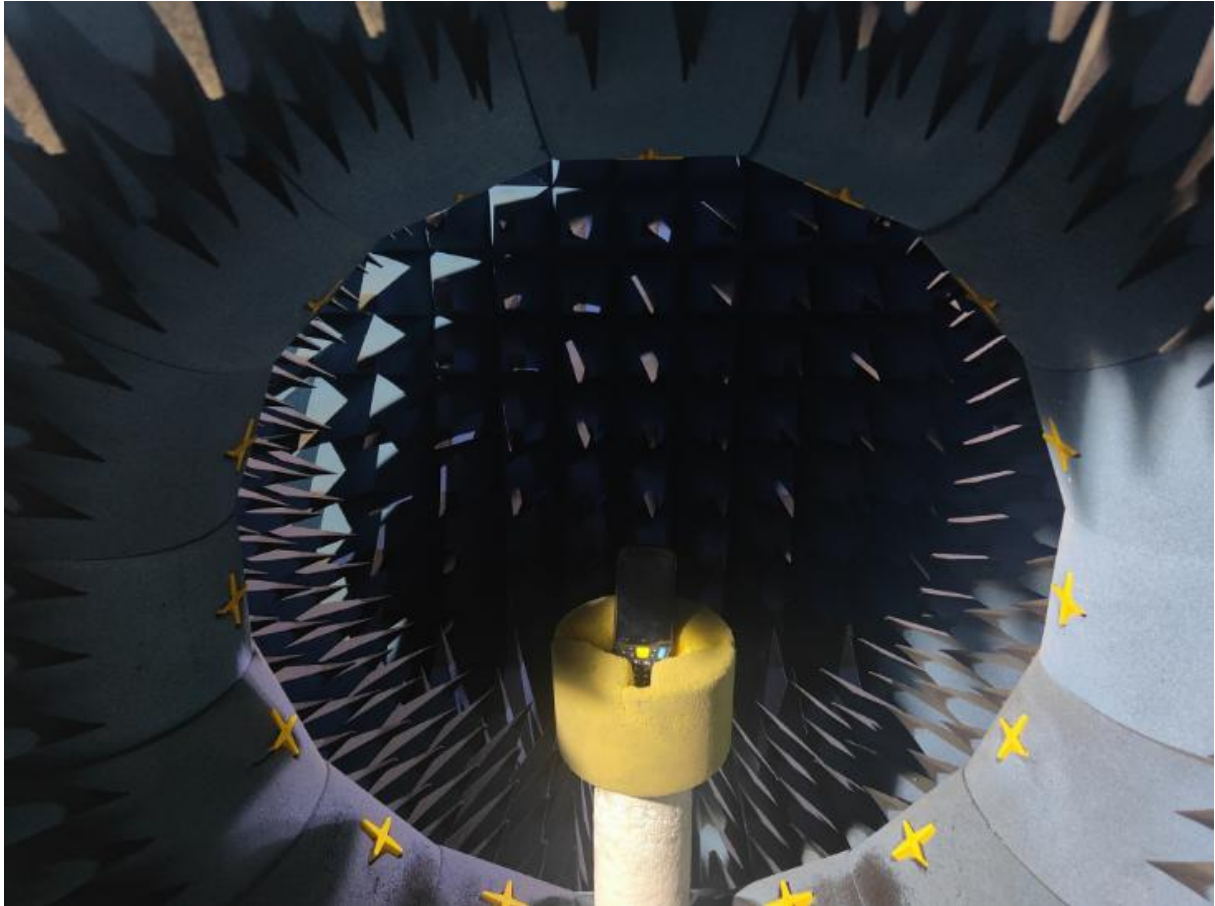
Gain test

Test progress:

- 1、 Open computer and instrument ,choose passive test include Gain by program-controlled computer
- 2、 Put EUT on turntable and connect EUT with RF cable
- 3、 Set up frequency point by 10MHz step
- 4、 Control computer desk and finish test
- 5、 Export and save test result

Active test

- 1、 Open computer and instrument ,chose active test include TRP and TIS by program-controlled computer
- 2、 Place on top of the Styrofoam mast in a holding fixture
- 3、 Logon and start EUT with instrument by program-controlled computer
- 4、 Export and save test result



Overview of EUT



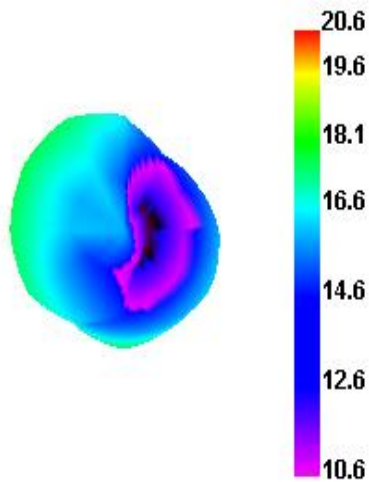
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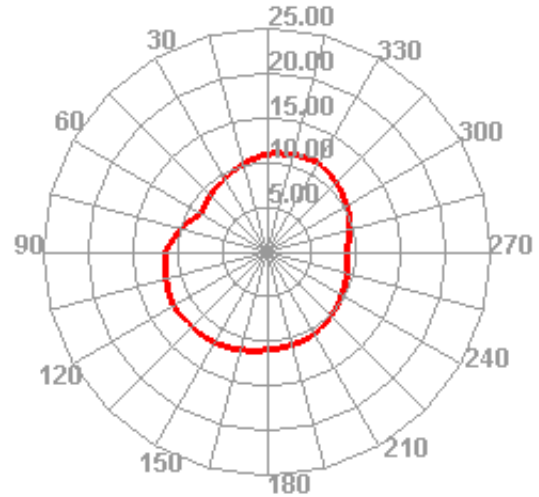
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Apple map direction map:

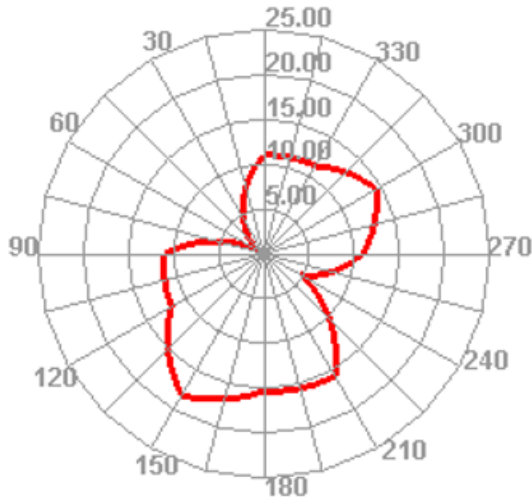
Wifi 1 TRP



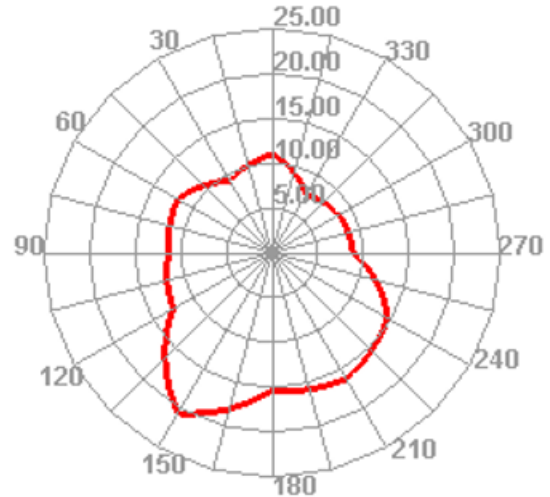
Wifi 1 TRP H



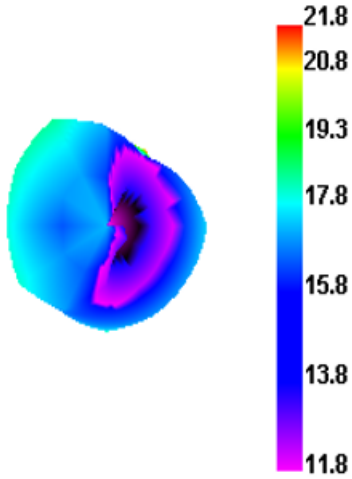
Wifi 1 TRP E1



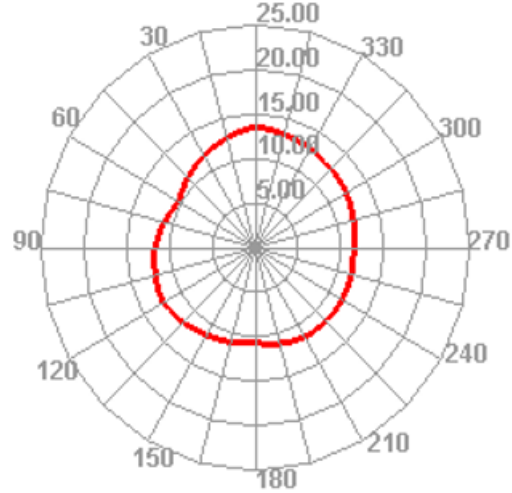
Wifi 1 TRP E2



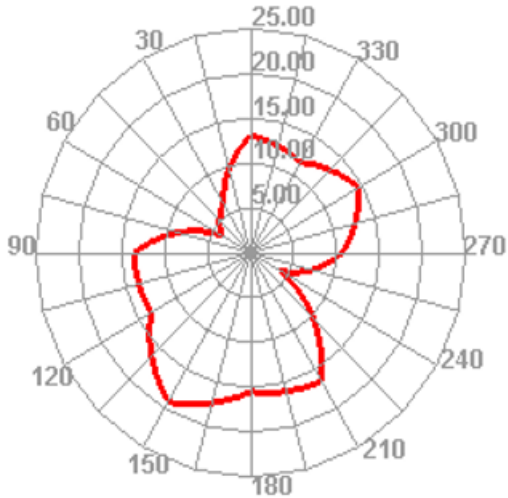
Wifi 7 TRP



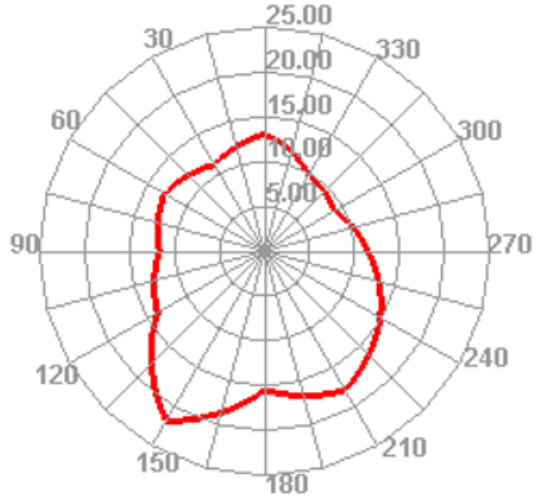
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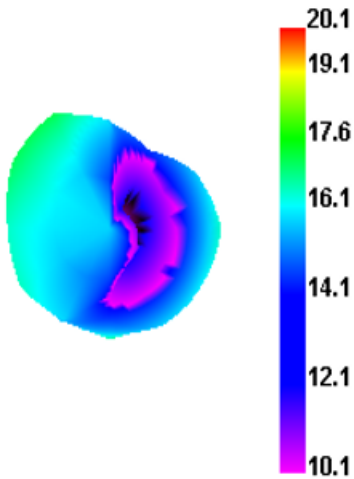
Wifi 7 TRP E1



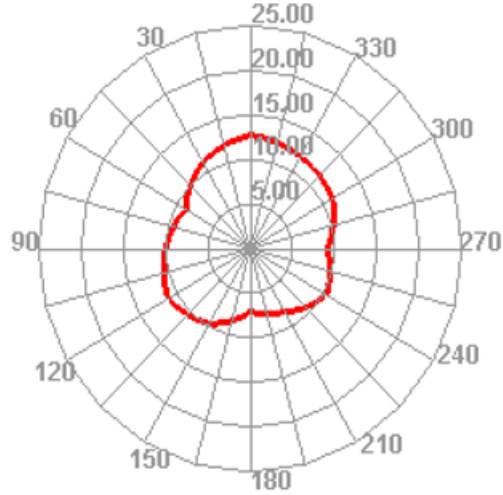
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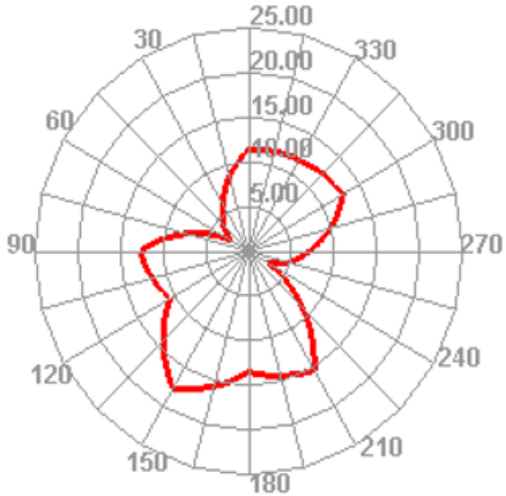
Wifi 13 TRP



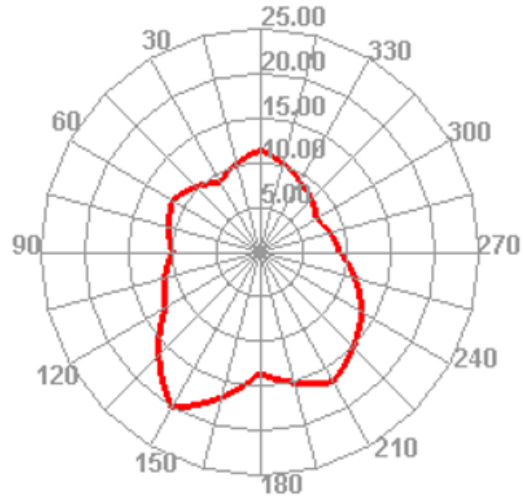
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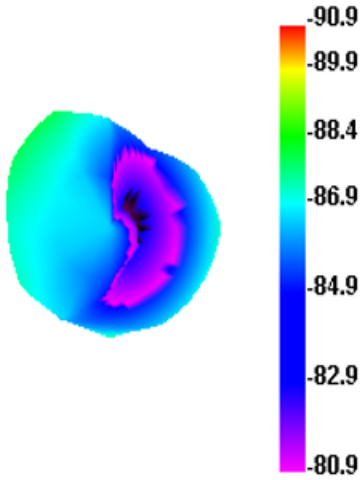
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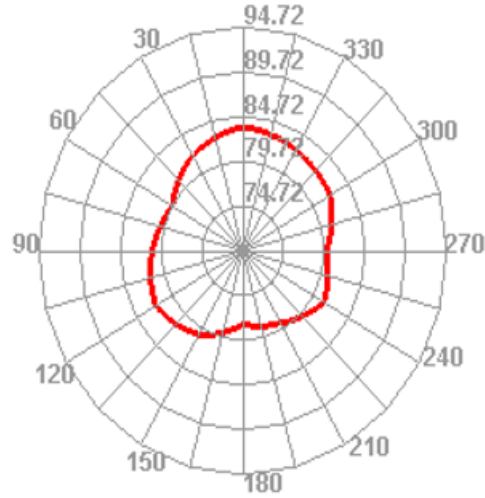
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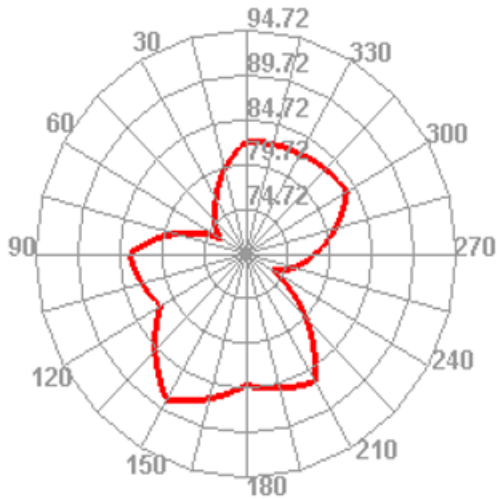
Wifi 13 TIS



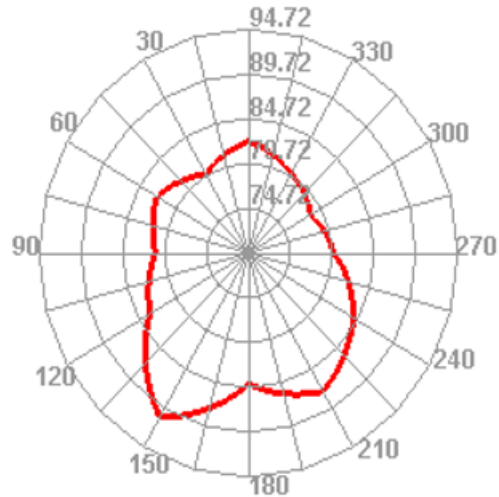
Wifi 13 TIS H



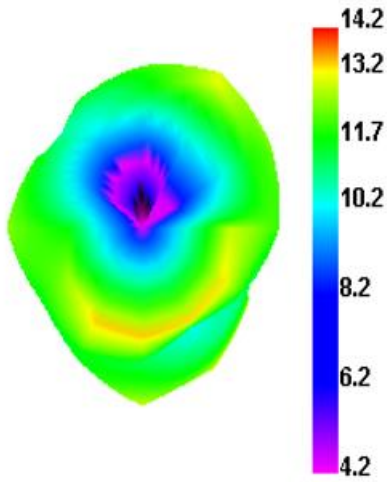
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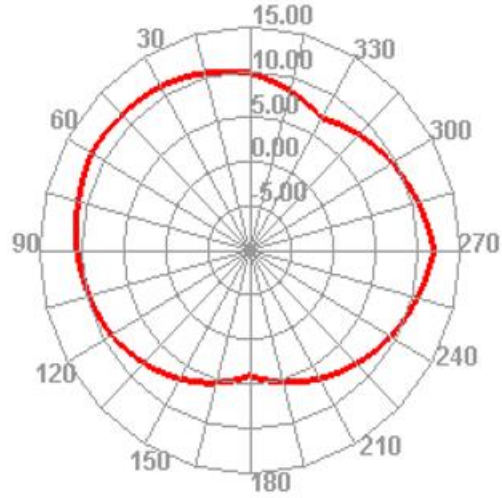
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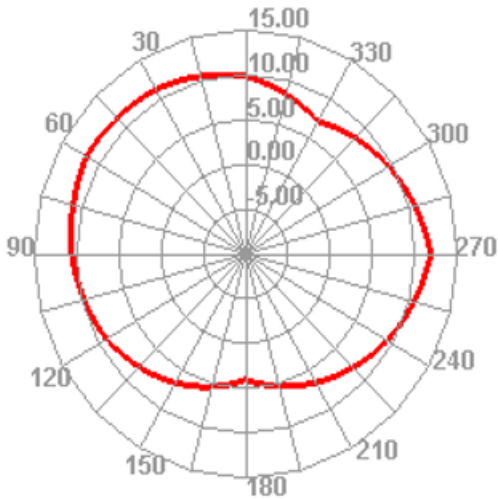
Wifi 36 TRP



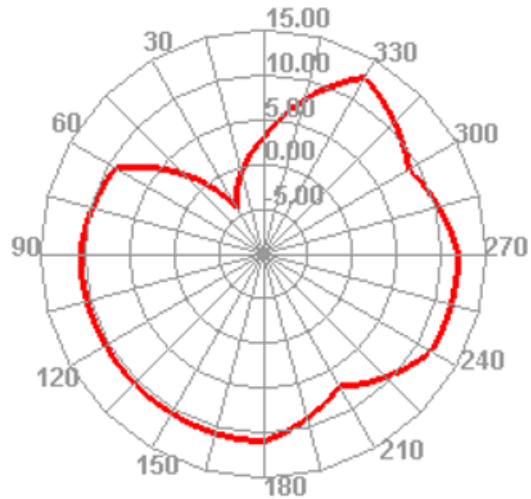
Wifi 36 TRP H



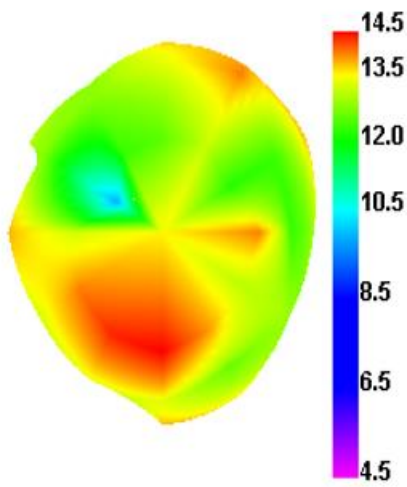
Wifi 36 TRP H



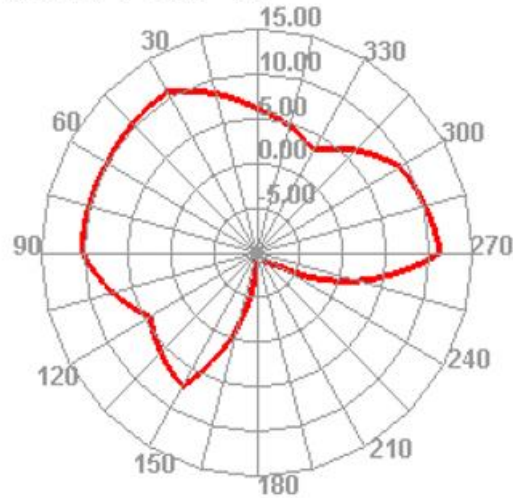
Wifi 36 TRP E2



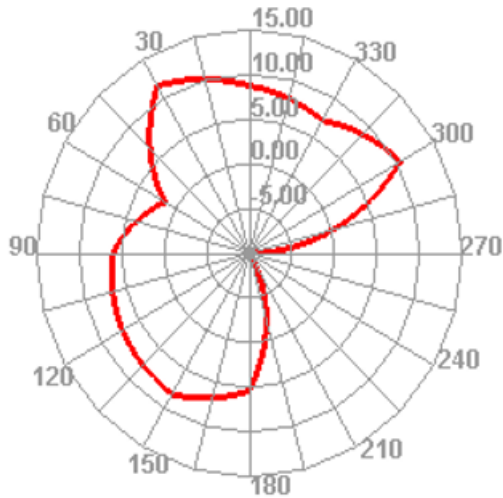
Wifi 64 TRP



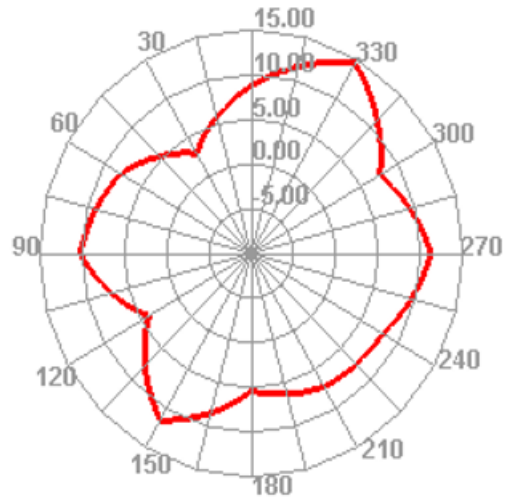
Wifi 64 TRP H



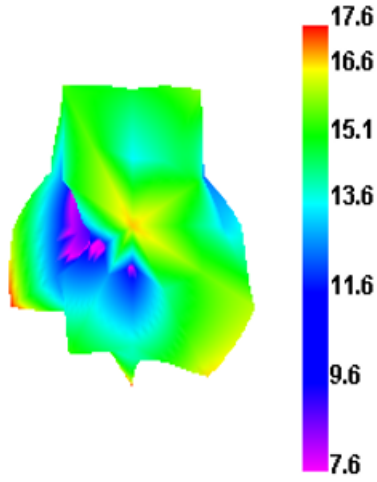
Wifi 64 TRP E1



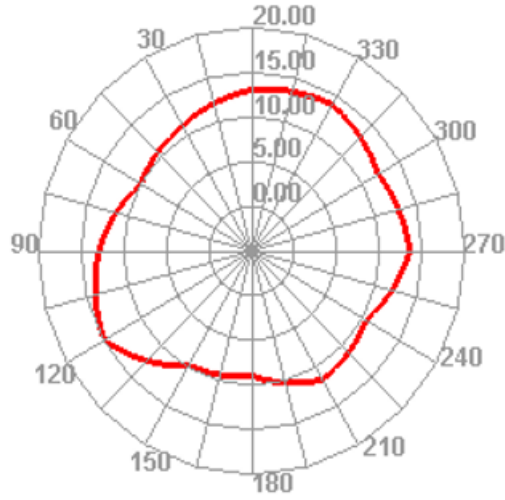
Wifi 64 TRP E2



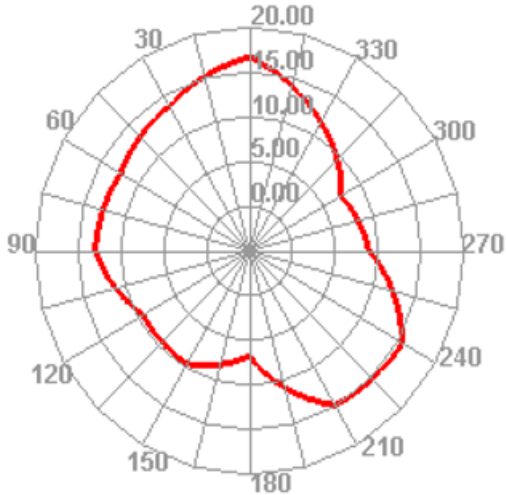
Wifi 165 TRP



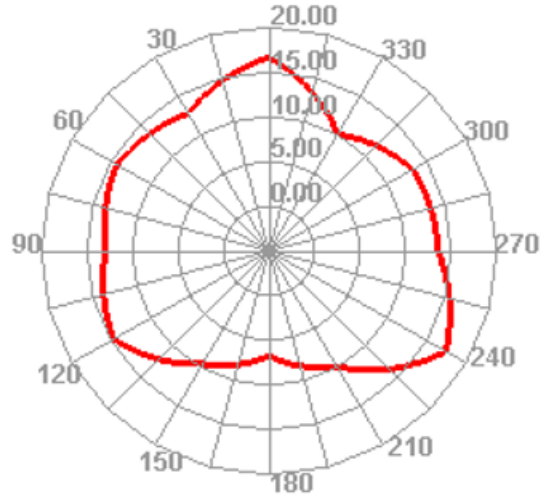
Wifi 165 TRP H



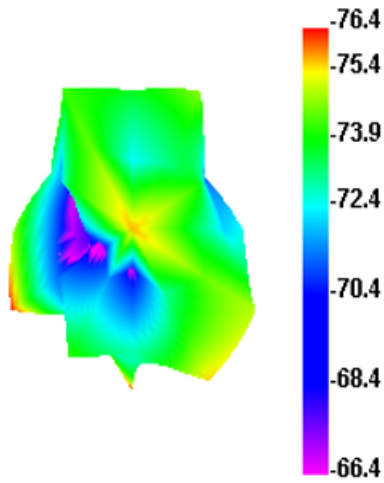
Wifi 165 TRP E1



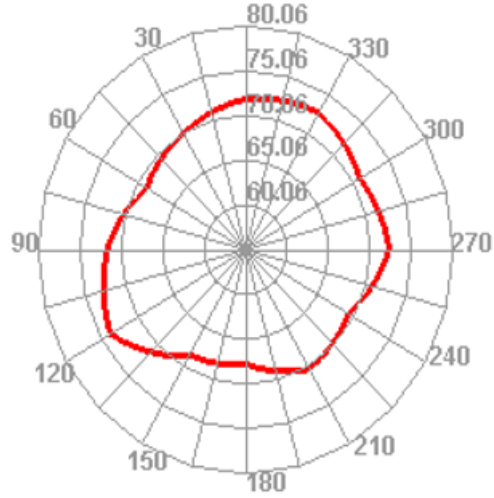
Wifi 165 TRP E2



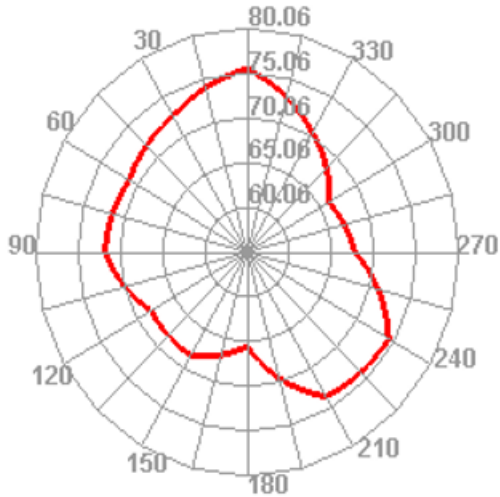
Wifi 165 TIS



Wifi 165 TIS H



Wifi 165 TIS E1



Wifi 165 TIS E2

