



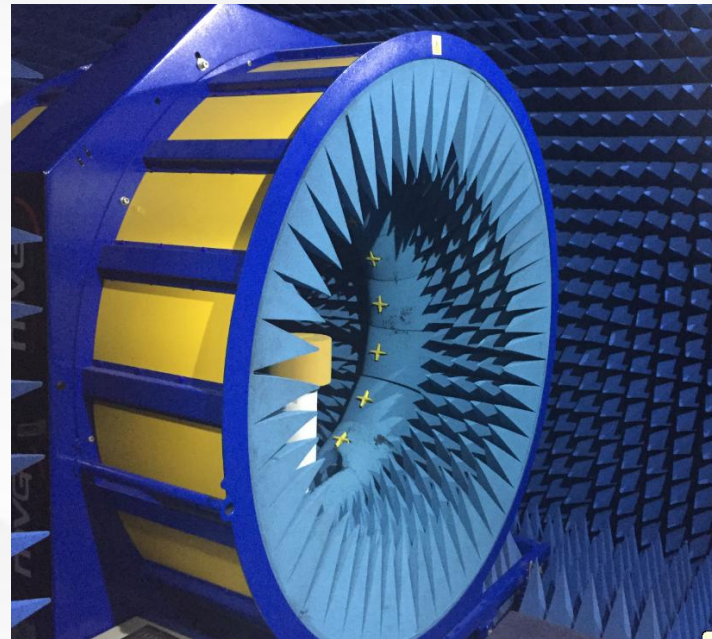
深圳市凯普深通讯科技有限公司
Shenzhen cape deep communication technology co., LTD

Antenna Specification

Client : Tu Gao
Project Name: HT09
RF : Jiang Changxing
Date : 2025.12.2



Laboratory test environment and equipment



Test Item	Test Equipment
S11、S12、VSWR、LOSS	Network Analyzers E5071B, E5062A
Efficiency、Gain 3D Radiation Pattern	Satimo SG16 darkroom, GP7 * 4*3 darkroom, E5071B
TRP、TIS	Satimo SG16 darkroom, GP7 * 4*3 darkroom, 8960, CMW500, MT8820C, E4438C,



Project Commissioning Introduction

Complete machine type	4G intelligent machine		
		Frequency band information	Antenna form
Antenna type and frequency band information	Main antenna	2G: 850/900/1800/1900 3G: W1/2/5/8 4G:B1/3/5/7/8/20/28/38/40/41//66 GPS/2.4W/5.8W	PIFA
	Secondary antenna	WIFI+BT+GPS	PIFA
	diversity antenna	700M-2710MHZ	PIFA
Antenna material			



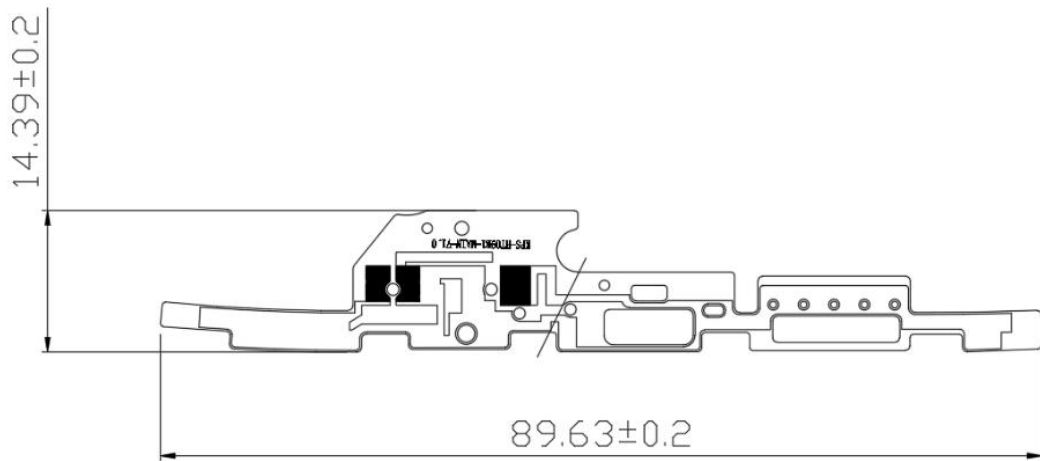
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7. Antenna Gain

	GAIN(dBi)		GAIN(dBi)
B1	-1.89		
B2	-2.03	B38	-2.18
B3	-2.56	B39	-2.04
B4	-2.47	B40	-2.23
B5	-3.98	B41	-2.18
B7	-2.18	GPS	-1.35
B8	-3.89	WIFI 2.4G	-0.33
B20	-3.71	BT	-0.33
B28	-3.83	WIFI 5.8G	-0.26
GSM850	-3.98	W1	-1.89
EGSM900	-3.89	W2	-2.03
DCS1800	-2.47	W4	-2.47
PCS1900	-2.03	W5	-3.98
		W8	-3.89

Antenna size

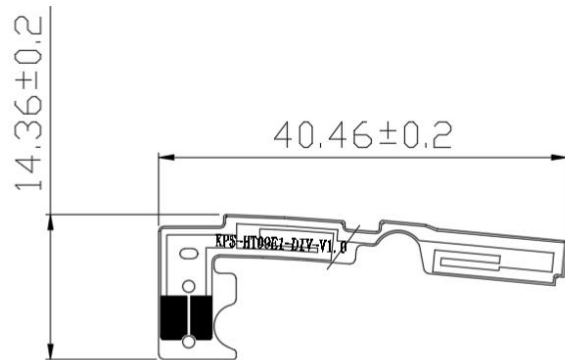
Unit: mm



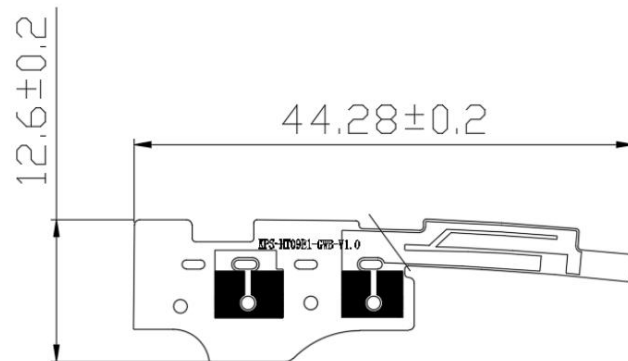
: KPS-HT09E1-MAIN-V1.0

Antenna size

Unit: mm



: KPS-HT09E1-DIV-V1.0



: KPS-HT09E1-GWB-V1.0

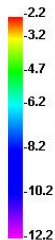
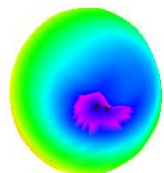


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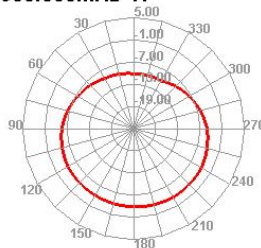
GSM antenna pattern

Low frequency

900.000MHz

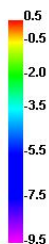
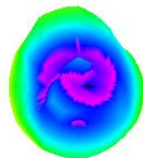


900.000MHz H

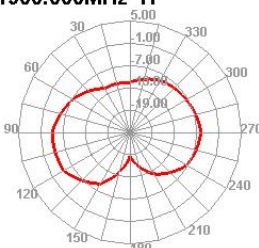


Medium frequency

1900.000MHz

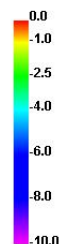
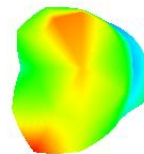


1900.000MHz H

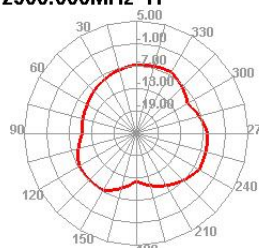


High frequency

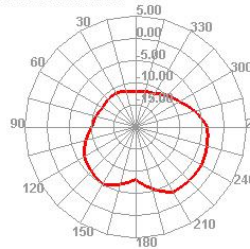
2500.000MHz



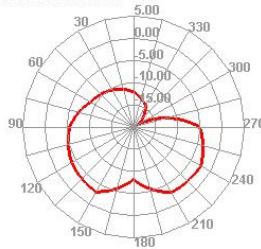
2500.000MHz H



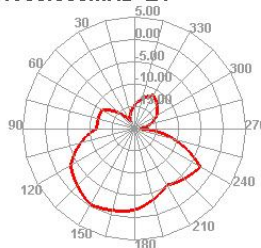
900.000MHz E1



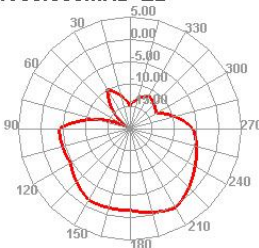
900.000MHz E2



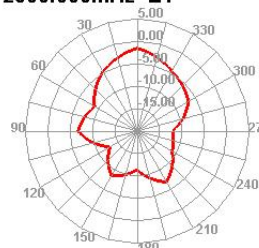
1900.000MHz E1



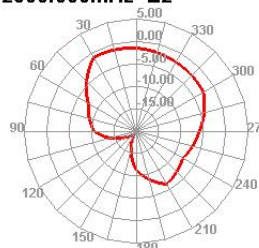
1900.000MHz E2



2500.000MHz E1



2500.000MHz E2

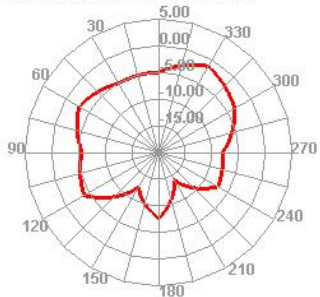




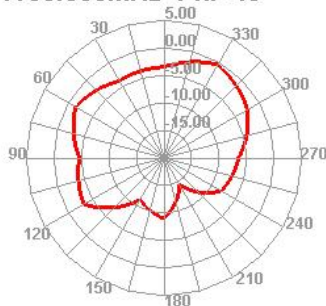
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Passive parameters of three-in-one antenna

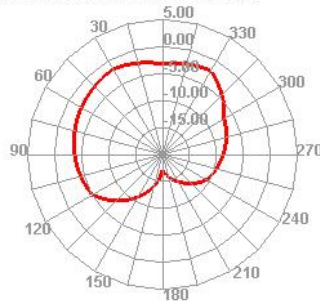
1550.000MHz Phi=45



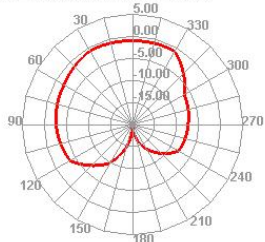
1600.000MHz Phi=45



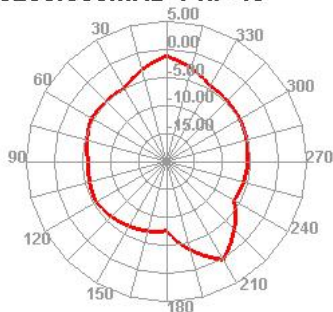
2400.000MHz Phi=45



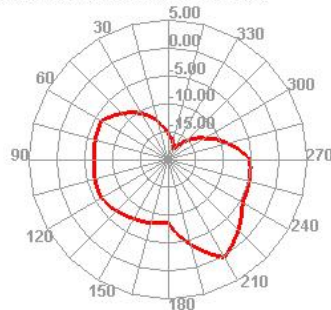
2500.000MHz Phi=45



5200.000MHz Phi=45



5900.000MHz Phi=45





Antenna Test Data

FS	Channel	TRP	TIS out	Bright		Channel	TRP	TIS out	Bright
LTE-1	L	19.3			LTE-7	L	19.6		
	M	19.7				M	18.7		
	H	18.2	-90.9			H	18.3	-85.2	
LTE-2	L	19.6			LTE-8	L	17.3		
	M	19.4				M	18.1		
	H	17.8	-88.3			H	18.7	-88.5	
LTE-3	L	17			LTE-20	L	17.3		
	M	17				M	18.4		
	H	18.4	-90			H	18.2	-91.2	
LTE-4	L	17.3			LTE-28	L	18.2		
	M	17.5				M	18.5		
	H	17.4	-92.5			H	18.7	-88.2	
LTE-5	L	15.1			LTE-66	L	17.7		
	M	16.6				M	17.5		
	H	17.6	-90.4			H	18.2	-92.9	



Antenna test data

FS	Channel	TRP	TIS out	Bright		Channel	TRP	TIS out	Bright
LTE-38	L	18.3			2.4 G WIFI	L	14.1		
	M	18.2				M	14.2		
	H	18.9	-88.1			H	10.1	-80.6	
LTE-39	L	19.6			5.8G WIFI	L	10.4		
	M	19.3				M	13.9		
	H	19.5	-91.7			H	12.8	-76.4	
LTE-40	L	18.1							
	M	17.8							
	H	17.6	-88.5						
LTE-41	L	16.4							
	M	18.2							
	H	17.6	-88.6						

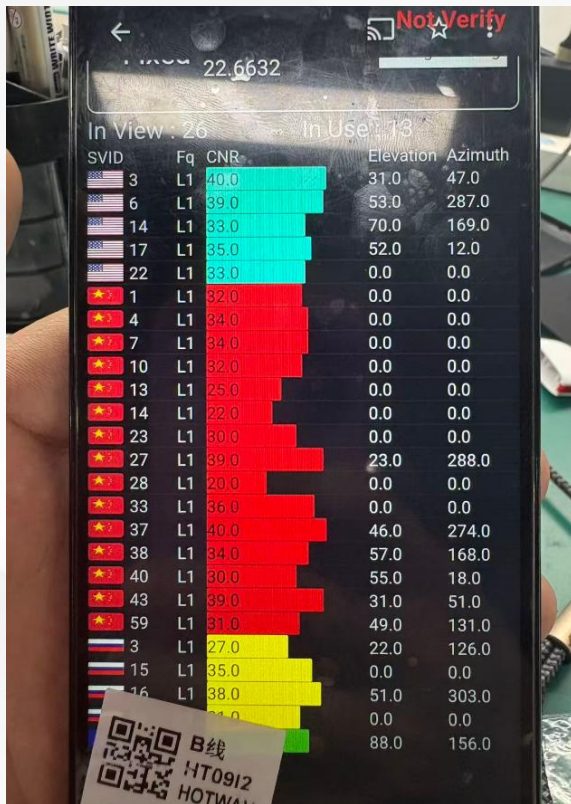


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Antenna Test Data

FS	Channel	TRP	TIS out		FS	Channel	TRP	TIS out	
W-1	L	18.1			GSM850	L	26.2		
	M	18.5				M	25.9		
	H	18.6	-105.4			H	25.5	-101.1	
W-2	L	18.3			GSM900	L	26.1		
	M	18.8				M	27.3		
	H	16.8	-104.1			H	27.2	-100.4	
W-4	L	16.2			DCS1800	L	25.3		
	M	16.7				M	24.7		
	H	17.6	-105.2			H	24.4	-104.2	
W-5	L	15			PCS1900	L	25.2		
	M	16.2				M	25.2		
	H	16.4	-103.8			H	25.2	-104.6	
W-8	L	16.1							
	M	16.9							
	H	17.3	-102.7						

Antenna Test Data





Environmental treatment

Other according to T2 trial production machine original environment treatment



Contact Information

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THE END

Thank you for your valuable comments!