1. Explanation of part number :



(2) Material : PC

С

- (3) Frequency: 2.4GHz-2.5GHz/4.8GHz-6.0GHz
- (4) Model name: 7B0911V00-G1J-G

2. Electrical Specification :

Those specifications were specially defined for **USB Dongle** model, and all characteristics were measured under the model's handset testing.

2-1. Frequency Band:

Band	Frequency (GHz)
Dual Band	2.4GHz-2.5GHz/4.8GHz-6.0GHz

2-2. Impedance

50 ohm nominal

2-3. Measurement method and description :

		RANCES ON :					
X=N/A	X.X=N/A	X.XX=N/A					
ANGLES=N/A	NGLES=N/A HOLEDIA CALE : N/A UNIT : mi RAWN BY : CHECKED						
SCALE : N/A	UNIT	: mm					
DRAWN BY :	CHEC	KED BY:					
DESIGNED BY:	APPR	OVED BY:					
TITLE : Embed	Ided Dual-Band A	ntenna for USB	DOCUMENT				SPEC REV.
Dongle	9		NO.				P0
				DA	1	05	04

2-3.1Test Instruments	i	
Device &	Device Picture	Manufacturer
Model No.		
GTS1800		GTS
CMW500		ROHDE&S CHWARZ

2-3.2 Test Setup

1) . Test connection diagram



Figure 1 BLE DTM test connection diagram

During the test, the DUT should be connected to CMW500 using USB line. And USB driver should be installed in the CMW500. The DUT will rotated 360 degree with usb line during the test.

UNLESS OTHE	R SPECIFIED TOLE X.X=N/A	RANCES ON : X.XX=N/A			/				-
ANGLES=N/A	A HOL	EDIA=N/A	ا لما	-0/					ŀ
SCALE : N/A	UNI	Г:mm							
DRAWN BY :	CHE	CKED BY:							
DESIGNED BY:	APP	ROVED BY:							
TITLE : Embe	dded Dual-Band	Antenna for USB	DOCUMENT					SPEC R	EV.
Dong	le		NO.					P0	
				D		2	05	04	



Figure 2 CMW500 USB and RF port connection

2) . Test template Setting

CMW500 setting, choose EUT Comm Protocol, HCI or two(2 wire) according DUT setting, and baud rate generally set with 115200. COM4 will be displaded when BT LE signal is on.If not, check if the driver is installed successfully(check unrecognized device in the device manager).

3) . Test template Setting

Test Procedure

1) Double click the icon to open the software.

2) Click "Set up" to open set up page, choose R8S CMW500 under menu of Equipment>instrument.

3) Click "templates" to enter the testing interface, select WIFI test template.

WIFI.bch TP_R8SCMW500_WiFi_TRP_a L.xml TP_R8SCMW500_WiFi_TRP_a M.xml TP_R8SCMW500_WiFi_TRP_a H.xml TP_R8SCMW500_WiFi_TRP_b L.xml TP_R8SCMW500_WiFi_TRP_b M.xml TP_R8SCMW500_WiFi_TRP_b H.xml TP_R8SCMW500_WiFi_TRP_b H.xml TP_R8SCMW500_WiFi_TRP_an L.xml TP_R8SCMW500_WiFi_TRP_an H.xml TP_R8SCMW500_WiFi_TRP_an H.xml TP_R8SCMW500_WiFi_TRP_an H.xml TP_R8SCMW500_WiFi_TRP_an M.xml TP_R8SCMW500_WiFi_TRP_an H.xml TP_R8SCMW500_WiFi_TRP_g L.xml TP_R8SCMW500_WiFi_TRP_g H.xml TP_R8SCMW500_WiFi_TRP_g H.xml

UNLESS OTHER	SPECIFIED TOL	ERANCES ON :			_	_		
X=N/A	X.X=N/A	X.XX=N/A						
ANGLES=N/A	НО	LEDIA=N/A						
SCALE : N/A	UN	IT:mm						
DRAWN BY :	СН	ECKED BY:						
DESIGNED BY:	API	PROVED BY:						
TITLE : Embed	ded Dual-Band	Antenna for USB	DOCUMENT					SPEC REV.
Dongle	•		NO.					P0
				DAC		3	OF	24

4) . Enter the parameter setting interface and click start.

-,	· Parameters (PRS_CANVISOO(IAUS)	(TDD)		
	4 Parameters (K85_CIVIV/500/ WIFI	/TRP)		
	Operation Mode : AP			
	Output Attenuation :	dB		
	Input Attenuation :d	В		
	TX Burst Power : -50 dBn	1		
	Expected Nominal Power : 25	dBm		
	Rate Automatic : False Y			
	TRP Data Rate : 54 Y Mbp	5		
	Packet Generator Protocol : 1	CMP Y		
	SSID : GTSWIFI			
	StandAlone Enable : False ×			
	Dual Channel Amplifier : True	~		
	RF Input(RX) : RF1COM ×			
	RF Output(TX) : RF1OUT Y			
	A Station Test Setting			
	MAC Address : 106F3F23D	228 hex		
	IP Address Stack : 192.168	.11.1		
	IP Address Destination : 1	92.168.11.8		
	Subnet Mask : 255.255.255	5.0		
	Default Gateway : 192.168	.11.1		
	DNS Server : 0.0.0.0			
	DHCP: ON Y			
	Security Mode : Disable :	7		
	Page LastDigit 8 12	24567*		
	Tast Catur	34307		
	Alternate Eile : Sele	Cloar		
	Alternate Point(s) Count(0 me	crocalternate) : 2		
	Alternate Switch Dalay 5			
	Alternate Switch Delay : -	s		
	Basichate Enable : Paise			
	Free Kun Mode : Faise			
	MFK Utri Enable : Faise			
	DFR Ctrl Enable : False Y			
	Ack Eirp : False			
UNLESS OTHER S	SPECIFIED TOLERANCES ON :			
X=N/A	X.X=N/A X.XX=N/A		NY	
ANGLES=N/A	HOLEDIA=N/A			
SCALE : N/A	UNIT : mm			
DRAWN BY :	CHECKED BY:			
DESIGNED BY:	APPROVED BY:	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
TITLE : Embedd	ed Dual-Band Antenna for USB			SPEC REV.
Doligie		NO.	PAGE /	OF 24

5) The DUT placed in the center of the chamber, connect the computer to WIFI signal named "GTSWIFI" of the chamber and no password is needed. Noted that the WIFI signal will be fined until test is started on step 4).

- 6) Closed the door of chamber and click "OK" .
- 7) Test result listed on the DUT interface, left click the mouse to copy



UNLESS OTHER S X=N/A	SPECIFIED TO X.X=N/A	DLERANCES ON : X.XX=N/A	H	=0)				
ANGLES=N/A	H	OLEDIA=N/A						
SCALE : N/A	U	NIT:mm						
DRAWN BY :	С	HECKED BY:						
DESIGNED BY:	A	PPROVED BY:						
TITLE : Embedo	ded Dual-Bar	nd Antenna for USB	DOCUMENT					SPEC REV.
Dongle			NO.					P0
				PA	GE	5	OF	24

2-4. VS	SWR D	ATA:								
					Freque	ncv	ANT1	ANT1		
		VSWR(驻	波比)	(max)	2. 4GHZ-2	. 5GZH	2.6	7.8		
		15 // R (91.			4 8GHZ-6	OGHZ	4 8	7		
					1.00112 0	. 00112	1.0	•		
	11.00 11.00 12.00 12.00 1.	af 1.000 [F2 H] 00 GH2 2.4140 00 GH2 2.4782 00 GH2 1.4102			Deplay Pier 522 21.00	NR 1.000/ Ref 1.000 [R: 9 St 1 2.1000000 GHZ 7.8213 22.1.000000 GHZ 1.4200 1.1.120000 GHZ 1.4200		•	Mariar 1	
	0.010			<u>u</u> n	Channels 10,000			-^	Market S	
	8.030				Albeate Tracet Deplay New Scool				Marter H Marie Markers	
	7.010				Data -> Mem				RatMadar Clear Marker	
	6,010			Re	Ger 6:000			+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	Minu Minur -> Raf Marker	
	4.010				OFF SCOOL				of Marker Minde OFF	
	3.010			AV V	Title Labol Cell 2 vito Jie Labol 2 vito Jie Labol			<u> </u>		
	2.010			415	ON Breat Color OFF 21 030					
	2 Start 500 MHz	<u> </u>	80w 20 kie	Rop 6 GPR [03]	1,000	16	100W 20 KI P	500 F G 1 000		
The new polycometer is										
ANT1:	3D		Posk			Frquer	ncy:2450MHZ			
Hz)	Gain(dBi)	Efficiency	Gain(dBi)	XY-pl	lane	X	Z-plane	YZ-p	lane	
2400	-5,5	28	-1.2		ad and a second se	10	1008 1008	RE	400d	
2450	-4.1	39	1.1		10.0 10.0	10	8008 80001 80001	1000	and and and	
2500	-5.7	27	1.2		na na	11266	4008 4006 11008		11.000 11.000 12.000	
5150	-0.3	23	-1.1			HULL				
5350	-4.4	36	-0.0		2011	14	RAI	THE	PHH	
5470	-5.5	28	-0.6							
5600	-5.6	28	1.0	XV-nl	ane	Y	7-nlane	V7-n	lane	-
5785	-4.8	33	0.9							-
5850	-4.1	39	1.2							
<u></u>										
					and the second					
							•			
										-
						Frque	ncy:5300MHZ			
				XY-p	lane	X	Z-plane	YZ-1	olane	_
							6.008	The	4000	
					ans and a second		9,000	14	Na Conte	
									al cont	
							E SIII	1 Charles	2201/11	
				(Car	KO H	1 Car		11 655		
									- All and a second seco	
				ХҮ-р	lane	X	Z-plane	YZ-I	olane	
								and the second		
					Cost,					
					P 9 3		100 C			
						Sec. 1	5-5			
			LLIVANO	$X = N/\Lambda$						
		.—IN/A	· · · ·					\mathbf{X}		
IGLES=N/	Α	HC	DLEDIA=	=N/A						
ALE : N/A		U	NIT : mn	n		_				_
AWN BY :		CH	IECKED	BY:						
SIGNED BY:	:	AF	PROVE	DBY:						
LE : Embe	dded D	ual-Ban	d Anten	na for USB	DOC	UMENT			s	PEC REV.
Dong	le					NO.				P0

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24

ANT2:								
Frquency(M	3D Chira(IDi)	Efficiency	Peak Cuin (ID:)					
Hz) 2400	-5.4	29	-0.2		Frq	uency:2450MHZ		
2450	-5.6	28	-0.4	XY-plane	_	XZ-plane	_	YZ-plane
2500 5150	-6.1	25	-1.1	14.008 14.008 14.008 14.008	K	B0040 B0000	1	1440E 1600E
5250	-5.3	30	-0.6		1/280		112	
5350	-5.4	29	1.2		N 1778	40.0	1/100	
5600	-0.0	11	-5.8		H		+	((Hanne)
5725	-10.1	10	-5.7					
5785	-10.4	9	-6.2		KC	EKI//	HU	
			-	XY-n]ane		XZ-plane		YZ-plane
					Fra	uoney:5300MH7		
				XY-plane	r1q	XZ-plane		VZ-plane
			-			And promo		2008
				Weelons		Varians		VZ-plana
			-	XY-plane		XZ-plane		YZ-plane
LESS OTHE								
IN/A CLES-N	X. / A	.⊼=N/A		A.AA=N/A				
	~							
	1							
	<i>.</i>							
	، مططح جا	D! D	APPRU			1		00000
Dong	gle	Jual-B			NO.			P0

Mechanical Specification: 3. Mechanical Configuration:



Figure 3-1-1 The antenna drawing										
ITEM	DESCRIPTION	MATERIAL SPECIFICATION	QUANTITY	UNIT						
1	USB DONGLE	Sabic 1414 T with Cu,Ni Plating and Silk Print	1	PCS						

UNLESS OTHE X=N/A	R SPECIFIED TO X.X=N/A	DLERANCES ON : X.XX=N/A							
ANGLES=N/	A He	OLEDIA=N/A	LU -				- 1		
SCALE : N/A	U	NIT:mm							
DRAWN BY :	C	HECKED BY:							
DESIGNED BY	: A	PPROVED BY:							
TITLE : Embe	edded Dual-Bar	nd Antenna for USB	DOCUMENT					SPEC	REV.
Dong	le		NO.					P	0
				D	ACE	0	05	04	



	星具	Gauge	MMO	MMO	OMM	OMM	NINO	MMO	MMO	MMO	OMM	오	오	MMO	MMO	NINO	MMO					
	判定	Judge	Я	¥	Ж	Х	Хо	Ж	¥	¥	¥	¥	¥	¥	x	Ж	¥					
	Alert/Reject	High Low							Alert		A1											
	rance	Lower	11%	12%	72%	76%	68%	72%	84%	62%	%0	11%	%0	30%	%0	40%	%0					
	% Tole	Upper	3%	10%	%0	%0	%0	0%	%0	%0	36%	%0	16%	10%	45%	2%	48%					
	平均值	Mean	14,894	12.091	11.572	4,748	1772	1.771	4.563	4.672	7.123	6.993	8.210	1.945	0.854	1.941	0.853					
	最小值	MN.	14.884	12.084	11.564	4.742	1.766	1.764	4.558	4.669	7.113	6.991	8.202	1.935	0.848	1.93	0.844					
	最大值	MAX.	14.904	12.095	11.579	4.755	1.778	1.778	4.568	4.676	7.136	6.998	8.216	1.955	0.858	1.951	0.859					
		43	14,897	12.086	11.564	4.751	1.772	1.775	4.558	4.674	7.116	6.993	8.212	1.953	0.858	1.951	0.859					
		4-2	14,893	12.086	11.568	4.743	1.769	1.77	4.558	4.672	7.113	6.992	8.207	1.942	0.852	1.943	0.858					
		14	14,895	12.084	11.567	4,744	1.766	1.778	4.563	4.671	1111	6.993	8.21	1.935	0.856	1.93	0.856					
		3.3	14.898	12.091	11.575	4,755	1.769	1.776	4.56	4.672	7.125	6.993	8.209	1.955	0.854	1.941	0.844					
	value	3.2	14.9	12.093	11.576	4.746	1.776	1.77	4.562	4.67	7.124	6.996	8.214	1.941	0.852	1.943	0.847					
	urement	34	14.884	12.092	11.574	4,754	1.776	1.11	4.561	4.673	1111	6.998	8.213	1.947	0.855	1.94	0.848					
	蛸值 Meas	2.3	14.889	12.093	11.579	4,747	17	1.764	4.564	4.67	7.125	6.991	8.213	1.948	0.85	1.947	0.854					
	実	11	14.893	12.09	11.572	4.742	1.778	1.1	4.565	4.672	7.122	6.992	8.216	1.945	0.854	1.942	0.852					
		2:1	14.886	12.09	11.575	4.747	1111	1.768	4.568	4.669	7.114	6.991	8.211	1.948	0.856	1.935	0.858					
		13	14.904	12.093	11.569	4.746	1.768	1.769	4.564	4.676	7.129	6.991	8.202	1.94	0.852	1.946	0.858					
		1:2	14.892	12.093	11.571	4.748	1.774	1.768	4.564	4.67	7.132	6.997	8.203	1.938	0.855	1.936	0.851					
		₽	14.9	12.095	11.57	4.747	1772	1.764	4.564	4.671	7.136	6.991	8.208	1.945	0.848	1.943	0.854					
	下限	Lower	14.75	12.04	11.55	4.73	1.75	1.75	4.55	4.65	1	6.92	8.1	19	0.82	1.9	0.82					
	工限	Upper	15.05	12.14	11.65	4.83	1.85	1.85	4.65	4.75	7.2	7.08	8.3	2	0.88	2	0.88					
	負公差	Lsl Tol	-0.15	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0-	80:0-	-0-	-0.05	-0.02	-0.05	-0.02					
	正公差	Usl Tol	0.15	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.08	63	0.05	0.04	0.05	0.04					
	标移值	Di id	14.9	12.09	11.6	4.78	1.8	1.8	4.6	4.7	١ï	1	8.2	1.95	0.84	1.95	0.84					
	序号	No.	-	2	с С	4	5.1	5.2	9	1	12	~	Ŧ	9.1	10.1	9.2	10.2					
UNLESS OT $X = N/A$	INLESS OTHER SPECIFIED TOLERANCES ON : (=N/A X.X=N/A X.XX=N/A										Г	U	C				1			1		
ANGLES=	NGLES=N/A HOLEDIA=N/A										L	n				/			_	Л	Ц	
SCALE : N	/ A			ļ	UNIT	: mr	n															
DRAWN BY	:				CHEC	KED	BY:															
DESIGNED	BY: her	habt	Dus	al-R≏	APPR	OVE	ש BY שמו היו	: or II:	SB		סס	CUM	ENT								SPEC	REV
Do	ongl	e	<u></u>								20	NO.									<u>P</u>	0
																P/	AGE	11		DF	24	

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