

1. Probe detail simultaneous TX SAR exclusion justification for WiFi/GSM using KDB 648474 Handset multi Xmitter procedures

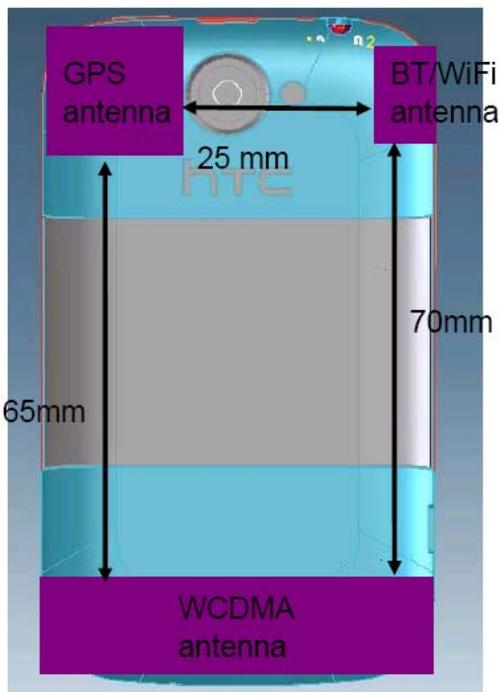
ATL:

- 1. BT & WLAN are not simultaneous transmission**
- 2. GSM & WLAN are simultaneous transmission**
- 3. GSM & BT are simultaneous transmission**

Comment:

Antenna Separation- GSM to WLAN=7cm >5cm, the simultaneous SAR is not required

Antenna Separation- GSM to BT=7cm >5cm, the simultaneous SAR is not required



2. How is the call set up parameters and transmitter conditions for EUT with respect to worst case operation established? Describe setup and operating details to run EUT and how air communication is established. Describe which antennas are used for transmitting and which are used for receiving while testing SAR.

ATL: GPRS set up parameters:

a: select the network support at “GSM+GPRS/ GSM+EGPRS”



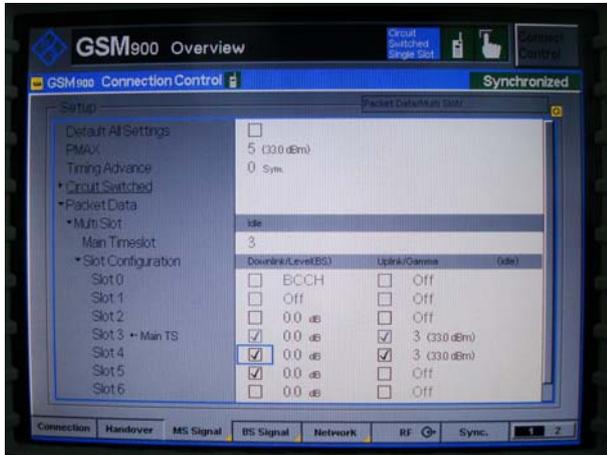
b: select the main service at “Packet Data”



c: Select the service selection at “Test Mode A”



d: GPRS Multi Class10: support maximum uplink=2, since to enable 2 uplink slot and setting the power on Gamma 3(33dBm)



3. Please explain which modes transmit voice only, data only or voice + data? In GSM, number of slots used and associated output power used for body and head. Need these to determine test requirements. Explain which multiclass used and the actual power used for head or body.

ATL:

- a: GPRS Class: Class B, A class B terminal can be registered on both GSM and GPRS network simultaneously but can have only one active call: you can have a voice call or a data connection at a time.
Once the voice call has terminated, the data service can be resumed. Most phones on the market are currently of this class.
- b: Multi-Class 10: Downlink->4, Uplink-> 2, Total Active->5
- c: The device is GPRS Class B , therefore it is not Head SAR issue of GPRS
- d: GSM850 Ch128 is worst and the SAR is more than 0.8mw/g , therefore the middle/highest channels are required

Band	Mode	CH	Frequency (MHz)	Average Conducted power (dBm)		Burst Averaged Conducted Power (dBm)	Worst
				before	After		
GSM850	----	Lowest	824.2	24.31	24.28	33.52	■
		Middle	836.6	24.21	24.13	33.41	□
		Highest	848.8	24.01	23.95	33.22	□
GPRS 850	4Down1Up	Lowest	824.2	24.31	24.27	33.50	□
		Middle	836.6	24.21	24.15	33.40	□
		Highest	848.8	24.01	23.95	33.20	□
	3Down2Up	Lowest	824.2	25.67	25.61	31.90	□
		Middle	836.6	25.47	25.41	31.70	□
		Highest	848.8	25.27	25.23	31.50	□
	2Down3Up	Lowest	824.2	28.73	28.69	33.20	■
		Middle	836.6	28.63	28.57	33.10	□
		Highest	848.8	28.43	28.34	32.90	□
	1Down4Up	Lowest	824.2	27.48	27.41	30.70	□
		Middle	836.6	27.28	27.25	30.50	□
		Highest	848.8	27.08	27.03	30.30	□
EGPRS 850	4Down1Up	Lowest	824.2	17.41	17.34	26.60	□
		Middle	836.6	17.21	17.18	26.40	□
		Highest	848.8	17.11	17.03	26.30	□
	3Down2Up	Lowest	824.2	20.27	20.24	26.50	□
		Middle	836.6	20.17	20.15	26.40	□
		Highest	848.8	19.97	19.92	26.20	□
	2Down3Up	Lowest	824.2	22.03	21.98	26.50	□
		Middle	836.6	21.83	21.77	26.30	□
		Highest	848.8	21.63	21.58	26.10	□
	1Down4Up	Lowest	824.2	23.18	23.14	26.40	□
		Middle	836.6	23.08	23.05	26.30	□
		Highest	848.8	22.88	22.83	26.10	□

4. Explain in page 31 why the 15mm separation distance which includes 2mm phantom thickness; this means you actually tested at 13mm separation distance.

ATL: Yes, the actually tested at 13mm

5. Explain why in page 27 there no test data done in 2450MHz channel.

ATL: Please see the Page 27, section 8.3.2 ,it is include system check at 2450MHz

6. Provide power measurement for GSM WiFi PCS BT for each channel/head body

ATL:

Band	Mode	CH	Frequency (MHz)	Average Conducted power (dBm)		Burst Averaged Conducted Power (dBm)	Worst
				before	After		
GSM850	-----	Lowest	824.2	24.31	24.28	33.52	■
		Middle	836.6	24.21	24.13	33.41	□
		Highest	848.8	24.01	23.95	33.22	□
GPRS 850	4Down1Up	Lowest	824.2	24.31	24.27	33.50	□
		Middle	836.6	24.21	24.15	33.40	□
		Highest	848.8	24.01	23.95	33.20	□
	3Down2Up	Lowest	824.2	25.67	25.61	31.90	□
		Middle	836.6	25.47	25.41	31.70	□
		Highest	848.8	25.27	25.23	31.50	□
	2Down3Up	Lowest	824.2	28.73	28.69	33.20	■
		Middle	836.6	28.63	28.57	33.10	□
		Highest	848.8	28.43	28.34	32.90	□
	1Down4Up	Lowest	824.2	27.48	27.41	30.70	□
		Middle	836.6	27.28	27.25	30.50	□
		Highest	848.8	27.08	27.03	30.30	□
EGPRS 850	4Down1Up	Lowest	824.2	17.41	17.34	26.60	□
		Middle	836.6	17.21	17.18	26.40	□
		Highest	848.8	17.11	17.03	26.30	□
	3Down2Up	Lowest	824.2	20.27	20.24	26.50	□
		Middle	836.6	20.17	20.15	26.40	□
		Highest	848.8	19.97	19.92	26.20	□
	2Down3Up	Lowest	824.2	22.03	21.98	26.50	□
		Middle	836.6	21.83	21.77	26.30	□
		Highest	848.8	21.63	21.58	26.10	□
	1Down4Up	Lowest	824.2	23.18	23.14	26.40	□
		Middle	836.6	23.08	23.05	26.30	□
		Highest	848.8	22.88	22.83	26.10	□

Band	Mode	CH	Frequency (MHz)	Average Conducted power (dBm)		Burst Averaged Conducted Power (dBm)	Worst
				before	After		
PCS1900	-----	Lowest	1850.2	20.71	20.68	30.12	■
		Middle	1880.0	20.51	20.45	29.80	□
		Highest	1909.8	20.31	20.25	29.70	□
GPRS 1900	4Down1Up	Lowest	1850.2	20.81	20.74	30.00	□
		Middle	1880.0	20.51	20.46	29.70	□
		Highest	1909.8	20.41	20.35	29.60	□
	3Down2Up	Lowest	1850.2	23.27	23.22	29.50	□
		Middle	1880.0	22.97	22.91	29.20	□
		Highest	1909.8	22.77	22.74	29.00	□
	2Down3Up	Lowest	1850.2	25.53	25.48	30.00	■
		Middle	1880.0	25.23	25.18	29.70	□
		Highest	1909.8	25.03	24.95	29.50	□
	1Down4Up	Lowest	1850.2	25.28	25.21	28.50	□
		Middle	1880.0	24.98	24.94	28.20	□
		Highest	1909.8	24.78	24.73	28.00	□
EGPRS 1900	4Down1Up	Lowest	1850.2	16.51	16.46	25.70	□
		Middle	1880.0	16.21	16.12	25.40	□
		Highest	1909.8	16.01	15.93	25.20	□
	3Down2Up	Lowest	1850.2	18.87	18.82	25.10	□
		Middle	1880.0	18.67	18.61	24.90	□
		Highest	1909.8	18.47	18.43	24.70	□
	2Down3Up	Lowest	1850.2	20.63	20.55	25.10	□
		Middle	1880.0	20.43	20.34	24.90	□
		Highest	1909.8	20.23	20.16	24.70	□
	1Down4Up	Lowest	1850.2	21.88	21.84	25.10	□
		Middle	1880.0	21.68	21.63	24.90	□
		Highest	1909.8	21.48	21.44	24.70	□

Band	Data Rate	CH	Frequency (MHz)	Average Conducted power (dBm)		Worst
				before	After	
802.11b	1M	Lowest	2412	17.80	17.75	■
		Middle	2437	17.50	17.43	<input type="checkbox"/>
		Highest	2462	17.40	17.35	<input type="checkbox"/>
	2M	Lowest	2412	17.48	17.41	<input type="checkbox"/>
		Middle	2437	17.43	17.34	<input type="checkbox"/>
		Highest	2462	17.38	17.32	<input type="checkbox"/>
	5.5M	Lowest	2412	17.42	17.38	<input type="checkbox"/>
		Middle	2437	17.34	17.28	<input type="checkbox"/>
		Highest	2462	17.14	17.10	<input type="checkbox"/>
	11M	Lowest	2412	17.29	17.25	<input type="checkbox"/>
		Middle	2437	17.33	17.29	<input type="checkbox"/>
		Highest	2462	17.17	17.11	<input type="checkbox"/>
802.11g	6M	Lowest	2412	13.15	13.10	<input type="checkbox"/>
		Middle	2437	12.86	12.81	<input type="checkbox"/>
		Highest	2462	13.05	13.00	<input type="checkbox"/>
	9M	Lowest	2412	12.97	12.91	<input type="checkbox"/>
		Middle	2437	12.84	12.78	<input type="checkbox"/>
		Highest	2462	12.90	12.84	<input type="checkbox"/>
	12M	Lowest	2412	12.91	12.83	<input type="checkbox"/>
		Middle	2437	12.76	12.70	<input type="checkbox"/>
		Highest	2462	12.83	12.78	<input type="checkbox"/>
	18M	Lowest	2412	12.58	12.51	<input type="checkbox"/>
		Middle	2437	12.84	12.79	<input type="checkbox"/>
		Highest	2462	12.69	12.62	<input type="checkbox"/>
	24M	Lowest	2412	12.41	12.35	<input type="checkbox"/>
		Middle	2437	12.56	12.50	<input type="checkbox"/>
		Highest	2462	12.43	12.35	<input type="checkbox"/>
	36M	Lowest	2412	12.21	12.11	<input type="checkbox"/>
		Middle	2437	12.30	12.25	<input type="checkbox"/>
		Highest	2462	12.01	11.94	<input type="checkbox"/>
	48M	Lowest	2412	12.04	12.00	<input type="checkbox"/>
		Middle	2437	11.80	11.72	<input type="checkbox"/>
		Highest	2462	11.82	11.75	<input type="checkbox"/>
	54M	Lowest	2412	11.59	11.53	<input type="checkbox"/>
		Middle	2437	11.54	11.50	<input type="checkbox"/>
		Highest	2462	11.57	11.51	<input type="checkbox"/>
	Bluetooth	Lowest	2402	-4.24	-4.27	■
		Middle	2441	-0.91	-0.95	<input type="checkbox"/>
		Highest	2480	-1.40	-1.41	<input type="checkbox"/>