1 Samsung Z105

Tests have been performed with the Samsung Z105 release SW 2.4.7.A, on May, 12th 2004
Trace activation code: *#0011#

1.1 Trace mode synthesis

3GPP Parameters	UE Parameters	Availability	Display	Accuracy	Comment
CPICH Ec/Io level	[11] Line4 E:	Y	Range-3dB/-21dB Resolution 1dB	Range -3/-17dB +/-1dB	
CPICH RSCP level	[11]Line4 R:	Y	Range -23dBm/-125dBm Resolution 1dB	Range -23/ -105 +/-3dB	Test performed with CPICH Ec/Io =3dB
RSSI level	[11] Line 2 R:	Y	Range -21dBm/-101dBm resolution 1dB	Range -19/-98dBm +/- 2.5dB	
DL Frequency	[11] Line2 R:	Y	Channel Number	/	
UL Frequency	[11]Line3 T:	Y	Channel Number	/	
LAC UMTS	[12]LAC	Y	/	/	**FAIL Always 0 See figure 2 Menu 12**
Scambling code		N	/	/	Not found
Cell Identity		N			
3G neighbours information		Y	/	/	**Fail See figure 2 Menu 104**

Table 1 - UMTS Trace, the handset is connected to UMTS network

GSM Parameters	UE Parameters	Availability	Display	Accuracy	Comment
Channel BCCH	[11]Line2 T: B:	Y			
LAC GSM	[12]LAC	Y			
RX lev	[11]	Y			
2G neighbours information	[103]	Y			

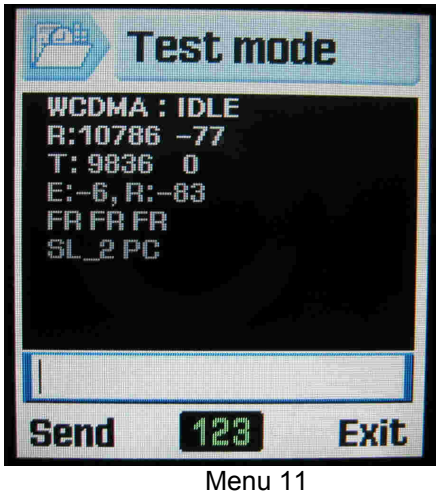
Table 2 – GSM trace, the handset is connected to the GSM network

1.2 UMTS display in trace mode

Line 2 **R: 10786 -77**
10786 is the downlink frequency (Channel)
-77 is RSSI level (dBm)

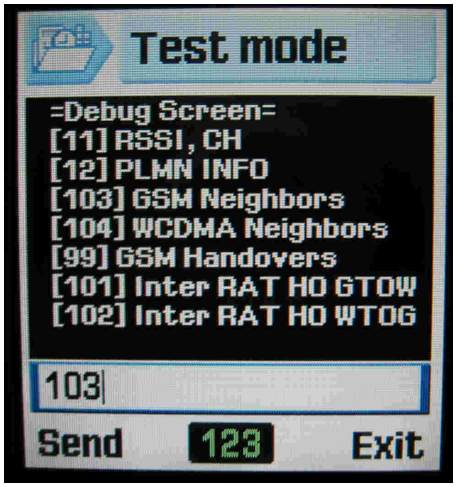
Line 3 **T:9836 0**
9836 is the uplink frequency (Channel)
0 is the TXpower (0 indicate no power)

Line 4 **E:-6, R:-83**
E:-6 is the CPICH Ec/Io level (dB)
R:-83 is theCPICH RSCP level (dBm)

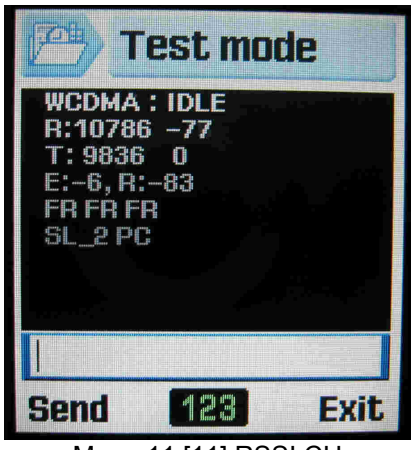


Menu 11

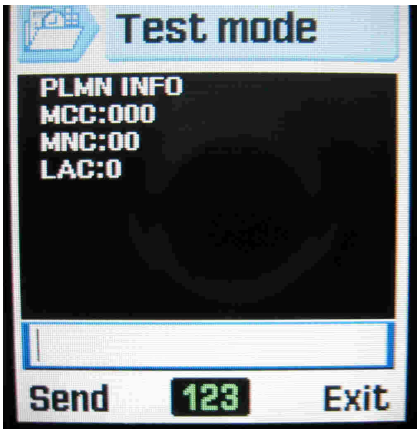
Figure 1 – Samsung Z105 main menu in trace mode and explanations of the metrics



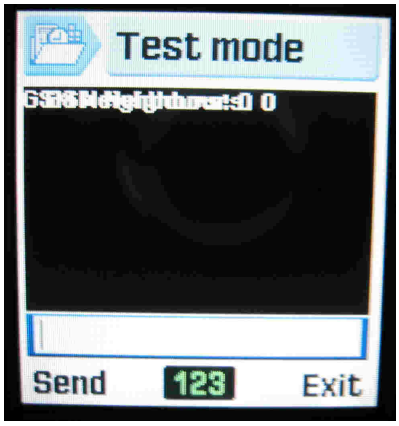
Menu 1



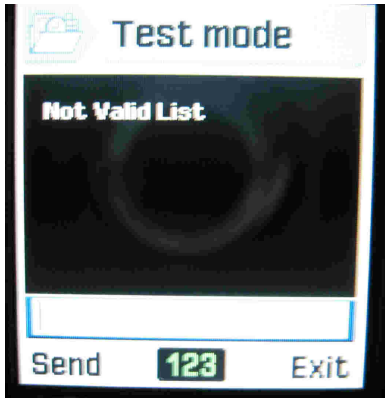
Menu 11 [11] RSSI,CH



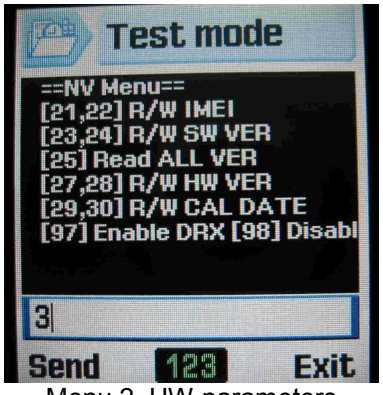
Menu 12 [12] PLMN INFO



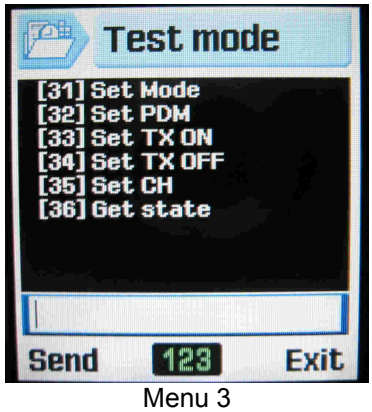
Menu 103
→ GSM neighbors ,not available



Menu 104
→ UMTS neighbors not available



Menu 2, HW parameters



Menu 3

2 LG8150

Tests have been performed with the LG 8150 release HW WY4.3.2.1 and SW V070W, on May, 12th 2004
Trace activation code: 2945#*#

2.1 Trace mode synthesis

3GPP Parameters	UE Parameters	Availability	Display Range	Accuracy	Comment
CPICH Ec/Io level	ECIO	Y		+/- 2 dB with conversion formula	Probable conversion formula: EcIo(LG)= -2*CPICH_Ec/Io (actual)
CPICH RSCP level	RSCP	Y	-23dBm/-125dBm	Range -25/ -103dBm +/-3.5dB	Miss sign(-)
RSSI level	RX level or RX AGC	Y	-21dBm/-101dBm	Range -19/-96dBm +/- 2.5dB	
DL Frequency	SRCH FREQ	Y	Channel Number	/	Valid after location
UL Frequency		N	/	/	
LAC		Y	/	/	Valid after handset on/off
Scambling code	SCR CODE or Active set	Y	/	/	
Cell Identity		N	/	/	
3G neighbours information		N	/	/	

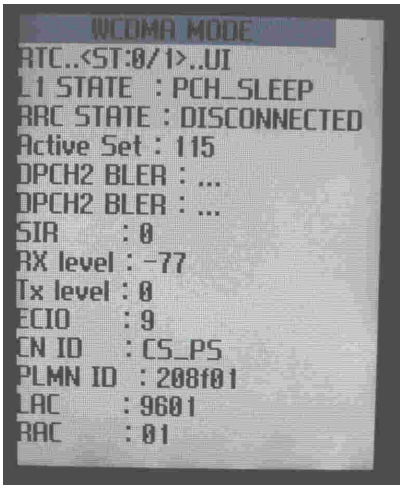
Table 3 - UMTS Trace, the handset is connected to UMTS network

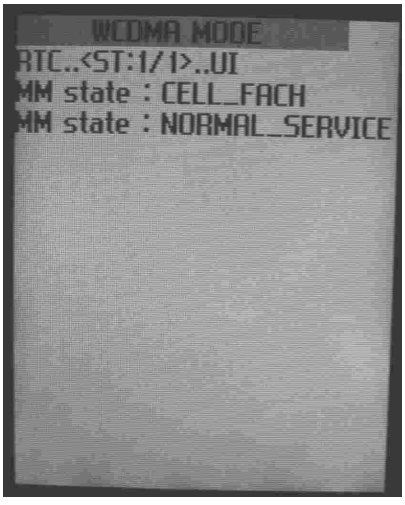
GSM Parameters	UE Parameters	Availability	Display	Accuracy	Comment
Number of 2G BCCH	GSM FREQ	Y			
level of 2G BCCH	RX Level or RX AGC	Y	-21dBm/-101dBm	Range -19/-96dBm +/- 2.5dB	

Table 4 – GSM trace, the handset is connected to the GSM network

2.2 UMTS and GSM display

In trace mode the UE provides the following displays.

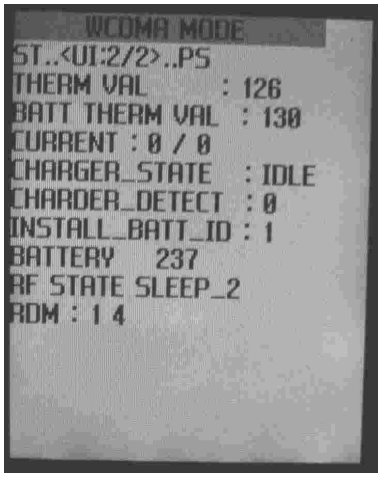




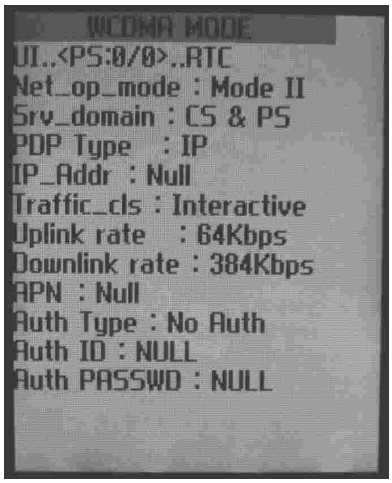
Display1

Display 3 (Right)
→ main menu including ECIO, RSCP and scrambling code

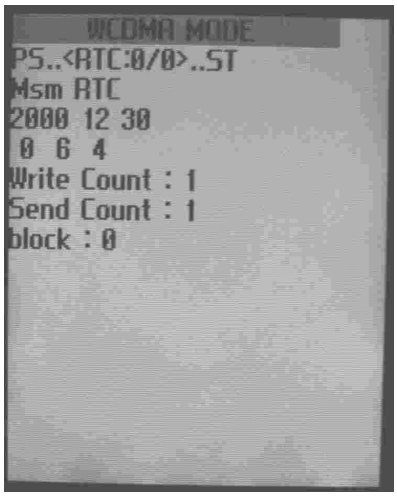
Display 2 (My menu,Bottom)



Display4 (My menu, bottom)



Display5



Display6