

Siemens Mobile Phones

C55 Screenshots for Level 2.5e Troubleshooting



V1.00

Version	Date	Department	Notes to change
V 1.00	19.11.2002	ICM MP CCQ GRM	New document

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1 General Information

All measurements are done on channel 124 with WinSui Version 1.38. For all measurements an AFC value is required. The LNA is active and the AGC is select to 20 dBm for RX measurements. Before TX measurements the PCL, the TXPWM and the IQ Offset value must read out of the FLAH with the READ buttons. For the Transmitter a random bit modulation with TSC 0 is used.

Service Mode Interface - Setting #1 - Connected to L55 Tuna

Power Ramp
 Power Class: 5 Peak Value: 1 Temperature: low Voltage: low SAR: PA Comp: ☐

Graphics
 dB: -30.00, -30.00, -30.00, -30.00, -30.00, -9.75, -8.25, -5.25, -1.25, 2.00, 9.00, 15.75, 24.00, 28.75, 30.75, 31.00
 Index: 0, 0, 0, 0, 0, 2, 8, 20, 36, 49, 77, 104, 137, 156, 164, 165
 Read Store
 dB: 30.75, 30.25, 29.00, 25.75, 21.25, 14.25, 7.50, -4.75, -9.75, -30.00, -30.00, -30.00, -30.00, -30.00, -30.00, -30.00
 Index: 164, 162, 157, 144, 126, 98, 71, 22, 2, 0, 0, 0, 0, 0, 0, 0

AGC
 RX [dB]: 0
 RX LNA: ☒ Low ☐ High
 RX Mixer 2: ☒ Low ☐ High
 MON [dB]: 0
 MON LNA: ☒ Low ☐ High
 MON Mixer 2: ☒ Low ☐ High

Rx/Tx Power
☒ Norm
☐ RxCont
☐ TxCont
☐ TxContPwrOff
☐ Power Off

TxPWM
 1
 Read Store

Synthesizer
 Channel Mode: ☒ Static
☐ Scan RX/TX
☐ Scan MON
 Update Time (ms): 0
 RX/TX: 0
 MON: 0

AFC
 0
 Prog Word

Transmitter
 Pattern: ☒ Random / TSC=0
☐ SSB1, no TSC
☐ SSB2, no TSC
☐ SSB1 / TSC=0
☐ SSB2 / TSC=0
☐ Access Burst
 RMS (dB): -50.063

DC Values
 Offset GSM: 0 I: 0 Q: 0
 Offset PCN: 0
 Offset PCS: 0
 Switch I/Q: ☐
 Amplitude: 0
 Read Store

Send all

Abbreviations description:

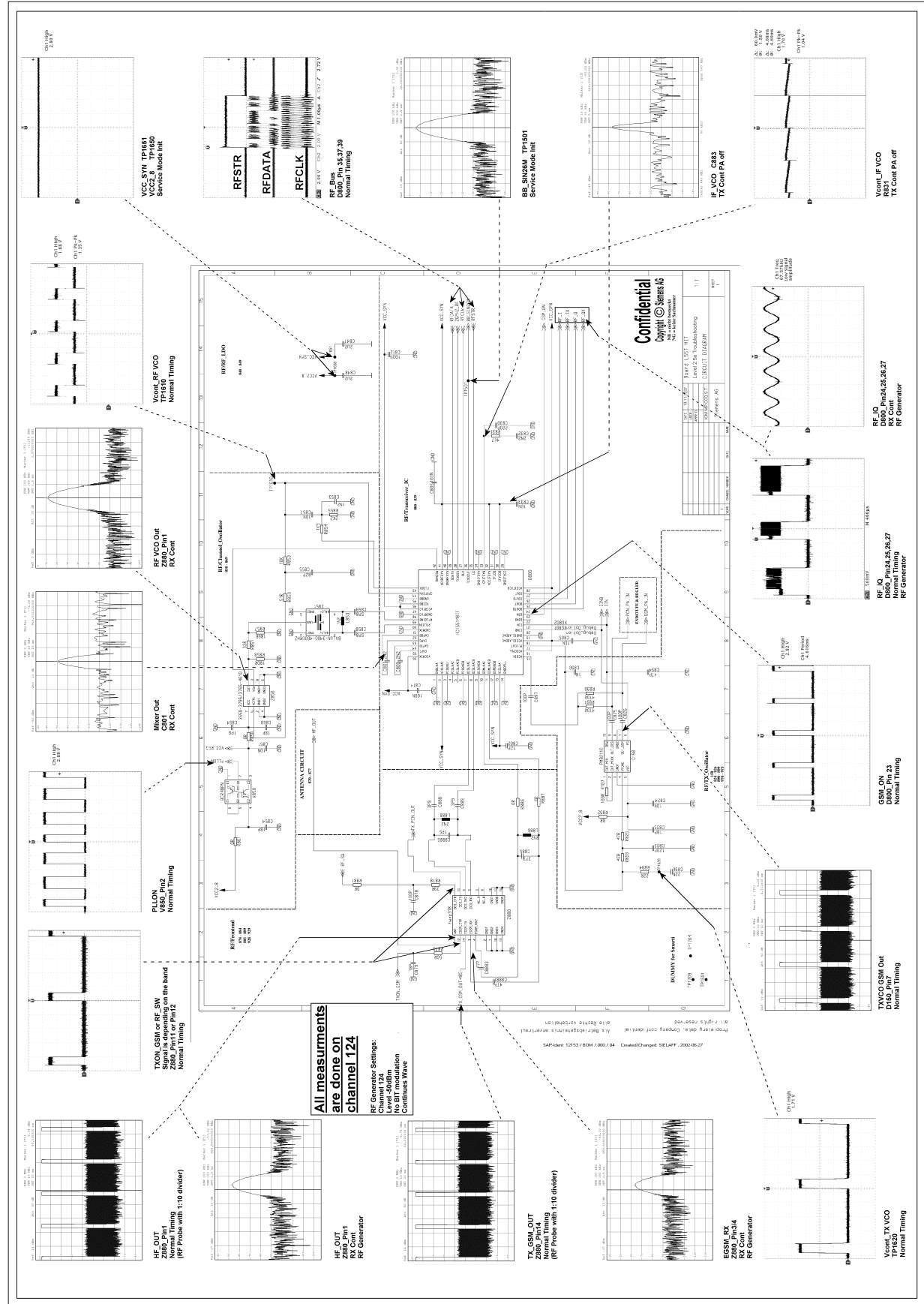
Norm Rx/Tx Power – Normal Timing
 RXCont Rx/Tx Power – RX Continues
 TX Cont PA off Rx/Tx Power – TX Continues Power Amplifier off

RF GEN external RF Generator
 Channel 124
 Frequency Offset: 67.7 kHz
 Level -50dBm
 No BIT modulation
 Continues Wave

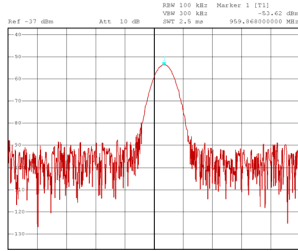
2 Special Circuit Diagram

Special_Circuit_Diagram.pdf

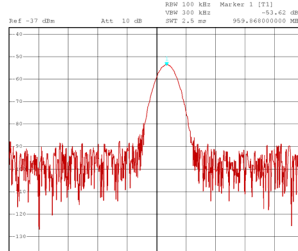
Click shortcut to ☐ open the document



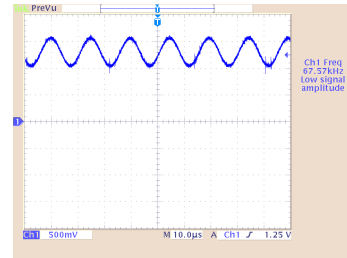
3 Screenshots RX Path



HF_OUT
Z880_Pin1
RX Cont
RF GEN

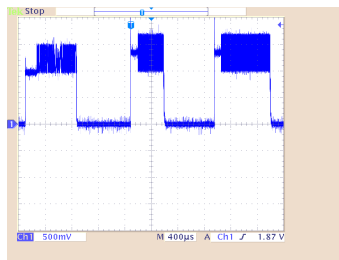


EGSM_RX
Z880_Pin3/4
RX Cont
RF GEN

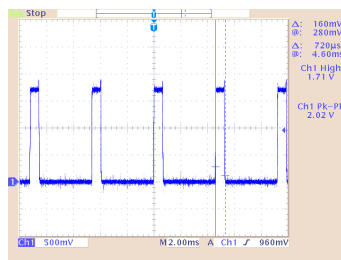


RF_IQ
D800_Pin24/25/26/27
RX Cont
RF GEN

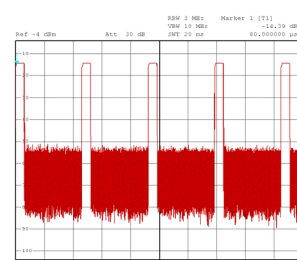
4 Screenshots TX Path



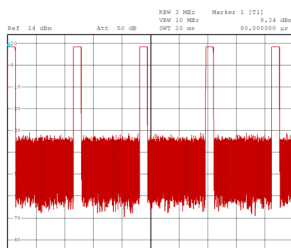
RF_IQ
D800_Pin24/25/26/27
Norm
RF GEN



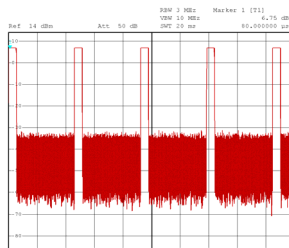
Vcont_TX VCO
TP1620
Norm



TXVCO_GSM_OUT
D150_Pin7
Norm

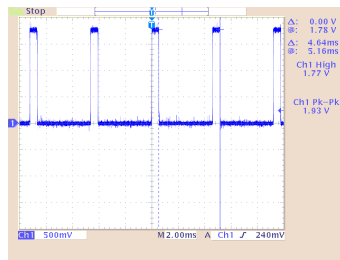


TX_GSM_OUT
Z880_Pin14
Norm
(RF Probe with 1:10 divider)

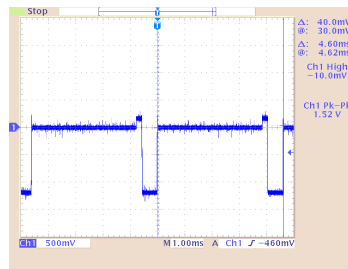


HF_OUT
Z880_Pin1
Norm
(RF Probe with 1:10 divider)

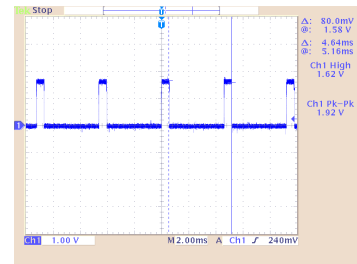
5 Screenshots TX Signals



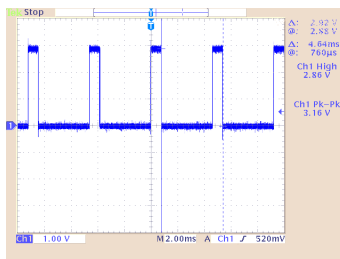
PA_RAMP PCL5
R160
Norm



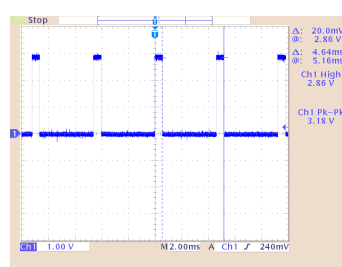
Decoupled PA Signal
R932
Norm



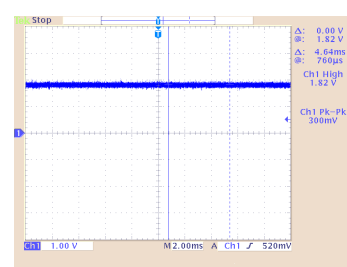
PA_CTRL PCL5
R907
Norm



TXON1
V921_Pin2
Norm

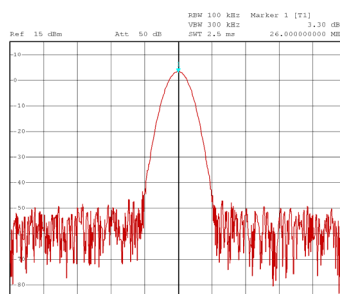


TXONPA
TP 1706
Norm

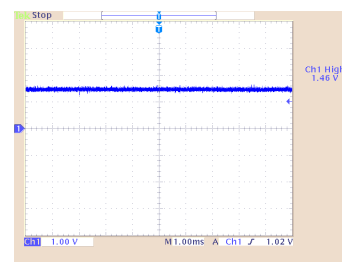


TXPWM
R931
Norm

6 Screenshots 26 MHz VCO

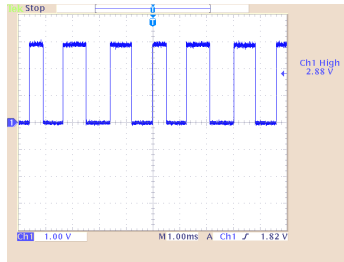


BB_SIN26M
TP 1501
Norm

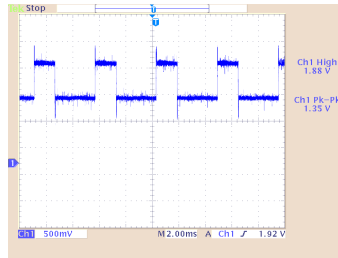


AFC_15000
R953
Norm

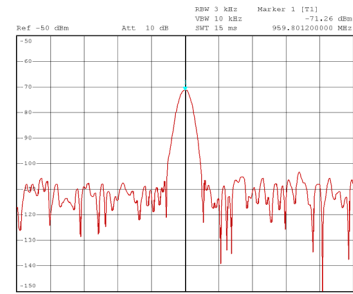
7 Screenshots LO1 (RF VCO)



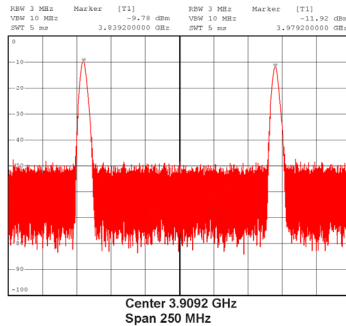
PLLON
V850_Pin2
Norm



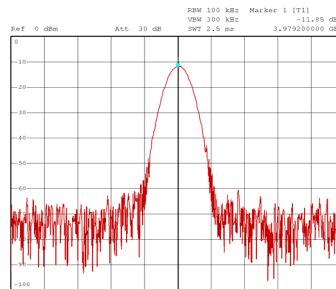
Vcont
TP 1610
Norm



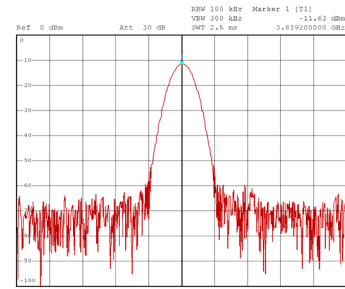
Mixer Out
C801
RX Cont



RF_VCO Out TX/RX
Z880_Pin1
TX Cont PA off/RX Cont

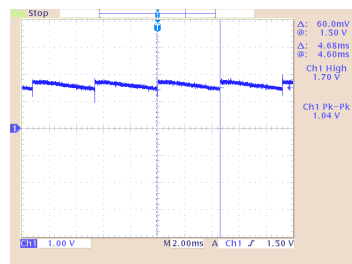


RF_VCO Out RX
Z880_Pin1
RX Cont

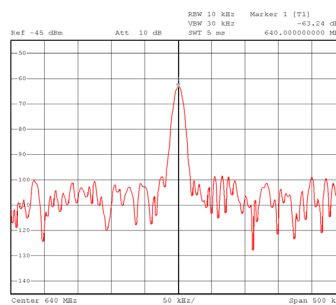


RF_VCO Out TX
Z880_Pin1
TX Cont PA off

8 Screenshots LO2 (IF VCO)

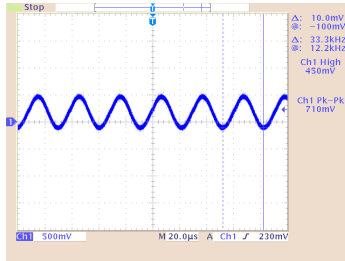


Vcont IF VCO
R831
TX Cont PA off

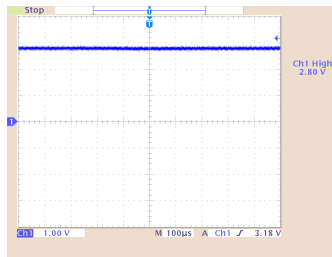


IF_VCO
C883
TX Cont PA off

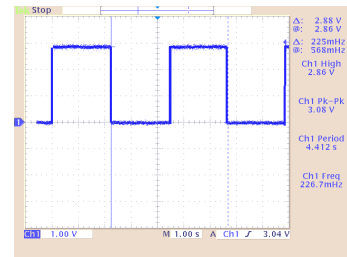
9 Screenshots Logic Voltages/Signals



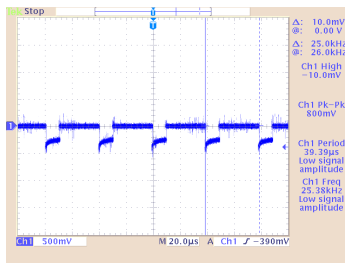
32 KHz Signal
Z171
Norm



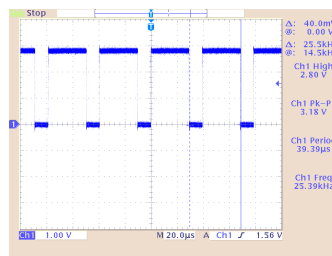
VCC_Syn/VCC2_8
TP 1651/1650
Norm



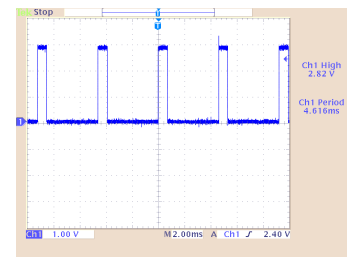
WADOG
TP 365
Norm



Vibra Signal
XG220_Pin2
Norm



Vibra UC
V211_Pin3
Norm



GSM_ON
D800_Pin23
Norm