

Go/No Go Test

- mechanical -



Xperia XZ2
H8216, H8266, H8296

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1 Go/No Go Testing

For more information on Antenna Coupler and Cable in shield box testing, refer to 1220-1336: Generic Repair Manual – electrical, section ‘Setup Go/NoGo Test’!

For part no's on the equipment below, refer to the ‘Tools Catalogue!’

1.1 Test with CMU200 (GSM and UMTS)

1.1.1 Equipment and Software

The following equipment has to be used:

- Rohde & Schwartz RF Package
 - Rohde & Schwartz RF Tester (CMU-200)
 - Rohde & Schwartz RF Shield Box (CMU-Z11)
 - Rohde & Schwartz RF Coupler (CMU-Z10)
- Grid Positioning Holder
- RF Test Cable Flexible 1M
- RF Adapter for RF Shield Box
- Nano USIM Card, instrument specific

The following software and test script has to be used:

- CMWgo (version 2.01)
- Test script in 1315-6465: Go/No Go Radio Application Test

1.1.2 Install CMUgo

Download the following 2 archive files from Rohde-Schwarz web site.

<https://www.rohde-schwarz.com/software/cmu200/>

- CMUgo_Updates_2.01_2009_10_13.zip
- Setup_CMUgo_V200.zip

Install "setup.exe" obtained by unzip from "Setup_CMUgo_V200.zip" at first, and then replace "cmugo.exe" in the installation path (C:\Program Files\Rohde&Schwarz\CMUgo) into "cmugo.exe" obtained by unzip from "CMUgo_Updates_2.01_2009_10_13.zip".

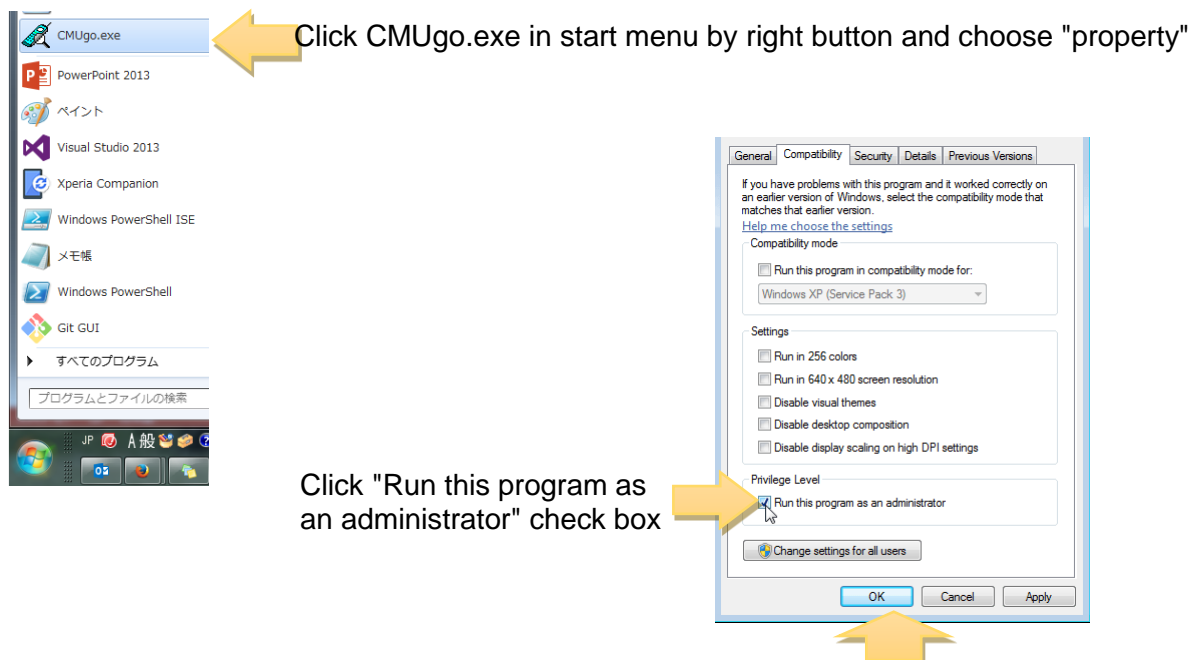
SONY

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1.1.3 Set up CMUgo

(1) Start up as administration

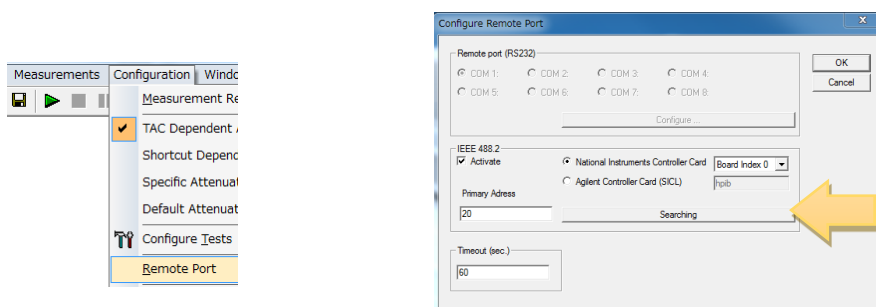
Always run CMUgo as an administrator, following the instruction.



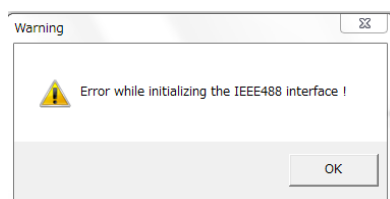
(2) Check CMU200 connection

Verify a connection between CMU200 and your PC.

Launch CMUgo in Start Menu. Choose "Remote Port" in "Configuration" menu, and then "Configure Remote Port" dialog window is opened. Click "Searching" button on it.



Any error dialog window is not opened if the connection is complete. If the following dialog window is opened, check your connection again. Or re-launch CMUgo after CMU200 launches completely.



(3) Default test script path

Specify a default path of CMU200 test script.

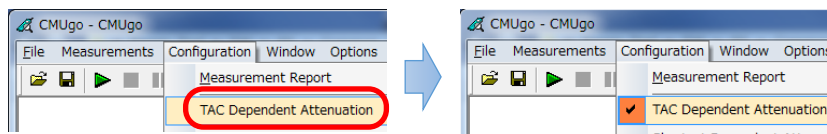
Test script provided by SOMC is always stored to "C:\GNG Test\CMUgo Test" by the installer. Choose "Directories" in "Options" menu, and then "Directories" dialog window is opened. Specify "C:\GNG Test\CMUgo Test", and click "OK" button.



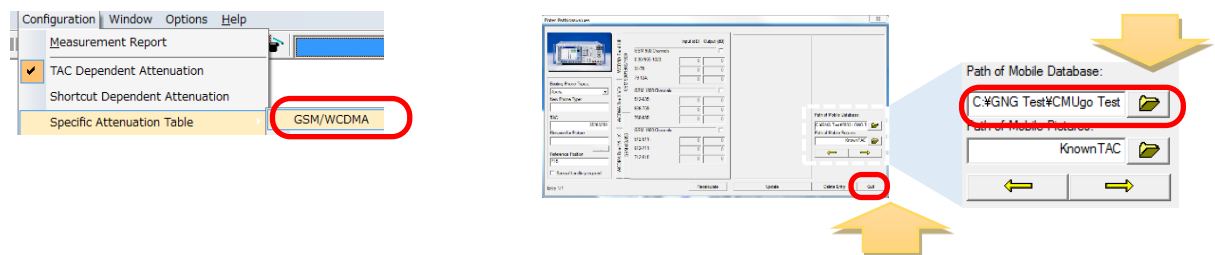
(4) Attenuation file path

Enable "TAC Dependent Attenuation" mode on "Configuration" menu.

It makes CMUgo choose a correct attenuation value from an attenuation file by TAC number of a tested phone unit.



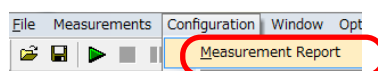
Specify attenuation file path. Choose "GSM/WCDMA" from "Specific Attenuation Table" on "Configuration" menu, and then "Enter Pathlossvalues" dialog window is opened. Specify "C:\GNG Test\CMUgo Test", and click "OK" button.



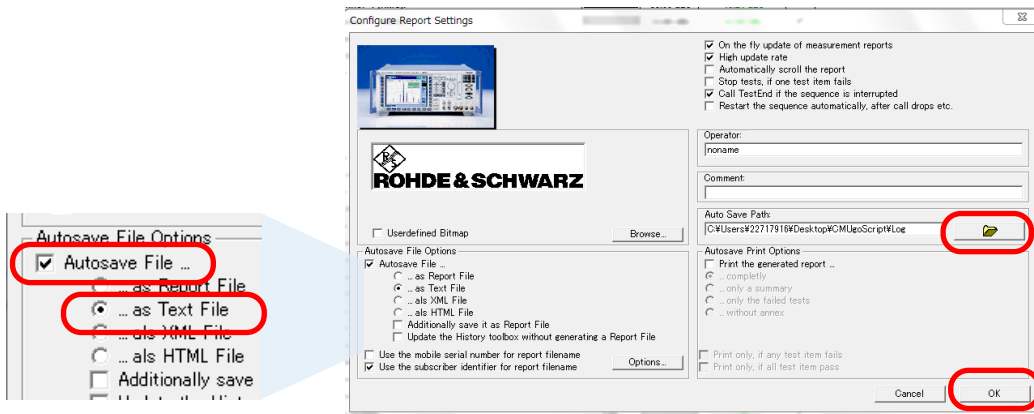
(5) Log file format and path

To make CMUgo dump a log file, specify the file's format type and path.

Choose "Measurement Report" on "Configuration" menu, and then "Configure Report Settings" dialog window is opened.

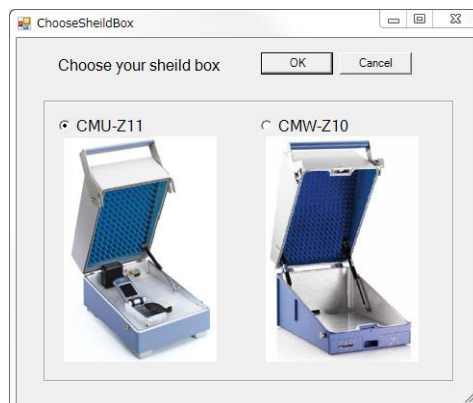


In "Autosave File Options" area, check "Autosave File ..." on, and choose "... as Text File".
In "Auto Save Path" area, specify your comfortable path to dump a log file (Ex. desktop), and click "OK" button.



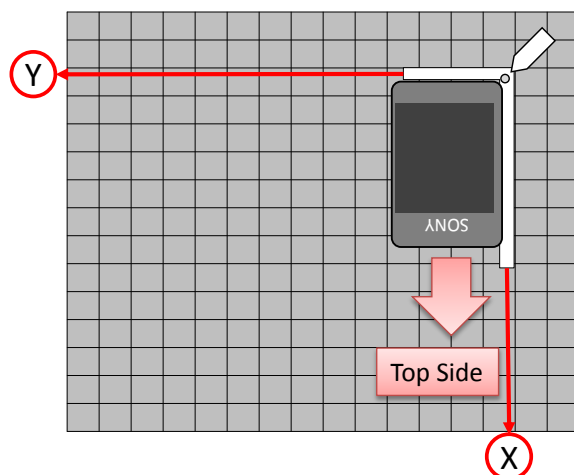
1.1.4 Install test script

Launch "CMUgoScriptInst.exe" in "H82 GoNoGo Test\CMU200" folder, and then the following dialog window is opened. Choose your shield box type, CMU-Z11 or CMU-Z10, and click "OK" button. Then the relative files are installed to "C:\GNG Test\CMUgo" folder.



1.1.5 Put phone unit into shield box

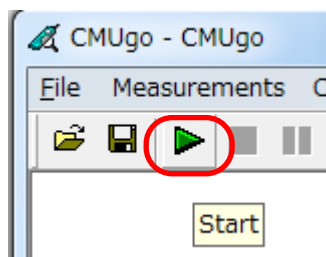
Put the grid positioning holder with its reference point described in the following table.
And place the phone by the top side of phone towards yourself as shown in the adjacent picture. **Make sure your phone position and direction like the following picture.**



Commercial Name	CMW-Z10		CMU-Z11	
	X position	Y position	X position	Y position
H8216	N	17	H	17
H8266				
H8296				

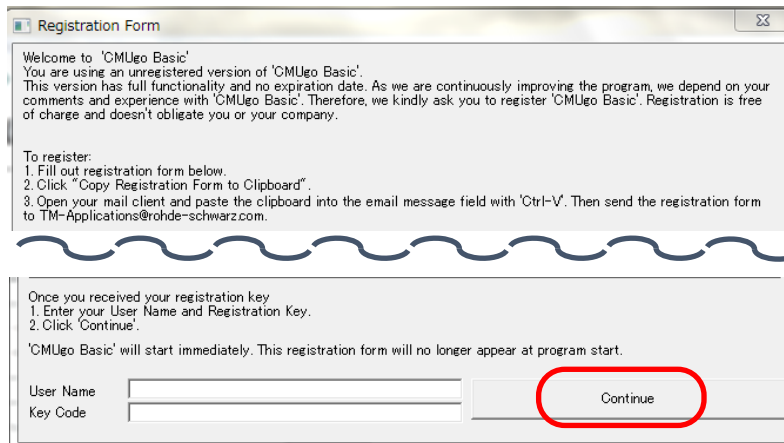
1.1.6 Execute CMWgo

Click "Start" button.



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If "Registration Form" dialog window is opened, you do not need to full fill, and just click "Continue" button.



Registration Form

Welcome to 'CMUgo Basic'
You are using an unregistered version of 'CMUgo Basic'.
This version has full functionality and no expiration date. As we are continuously improving the program, we depend on your comments and experience with 'CMUgo Basic'. Therefore, we kindly ask you to register 'CMUgo Basic'. Registration is free of charge and doesn't obligate you or your company.

To register:
1. Fill out registration form below.
2. Click "Copy Registration Form to Clipboard".
3. Open your mail client and paste the clipboard into the email message field with 'Ctrl-V'. Then send the registration form to TM-Applications@rohde-schwarz.com.

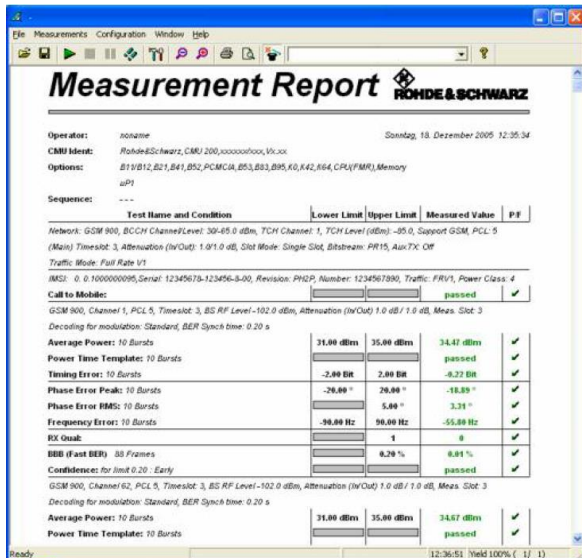
Once you received your registration key
1. Enter your User Name and Registration Key.
2. Click 'Continue'.

'CMUgo Basic' will start immediately. This registration form will no longer appear at program start.

User Name:
Key Code:

Continue

CMUgo shows your test status and launches Pass or Fail result dialog window.



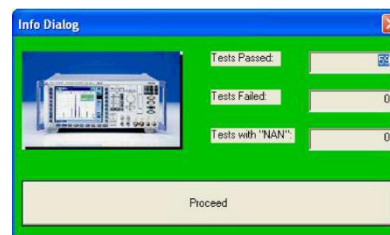
Measurement Report **ROHDE & SCHWARZ**

Operator: no_name Sonntag, 18. Dezember 2009 12:35:34
CMU Ident: Rohde&Schwarz, CMU 200, xxxxxxxxxx, Vx.xx
Options: B1VB12,B21,B41,B52,PCMCIA,B53,B83,B95,K0,K42,K64,CPX(PMR),Memory
uP1
Sequence: ---

Test Name and Condition	Lower Limit	Upper Limit	Measured Value	P.F.
Network: GSM 900, BCH Channel Level: 30-45.0 dBm, TCH Channel: 1, TCH Level (dBm): -35.0, Support GSM, PCL: 5 (Main) Timeslot: 3, Attenuation (In/Out): 1.0/1.0 dB, Slot Mode: Single Slot, Bitstream: PR15, Aux Tx: Off Traffic Mode: Full Rate V1				
IMS: 0.0.1000000005, Serial: 12345678-123456-8-00, Revision: PH2P, Number: 1234567890, Traffic: FRV1, Power Class: 4				
Call to Mobile:			passed	✓
GSM 900, Channel 1, PCL 5, Timeslot: 3, BS RF Level: -102.0 dBm, Attenuation (In/Out): 1.0 dB / 1.0 dB, Meas. Slot: 3 Decoding for modulation: Standard, BER Spec time: 0.20 s				
Average Power: 10 Bursts	31.00 dBm	35.00 dBm	34.47 dBm	✓
Power Time Template: 10 Bursts			passed	✓
Timing Error: 10 Bursts	-2.00 BR	2.00 BR	-0.22 BR	✓
Phase Error Peaks: 10 Bursts	-20.00 °	20.00 °	-18.89 °	✓
Phase Error RMS: 10 Bursts			5.80 °	✓
Frequency Error: 10 Bursts	-90.00 Hz	90.00 Hz	-55.00 Hz	✓
EC Qual:		1	0	✓
BER (Fast BER): 50 Frames		0.20 %	0.01 %	✓
Confidence: for limit 0.20 - Early			passed	✓
GSM 900, Channel 62, PCL 5, Timeslot: 3, BS RF Level: -102.0 dBm, Attenuation (In/Out): 1.0 dB / 1.0 dB, Meas. Slot: 3 Decoding for modulation: Standard, BER Spec time: 0.20 s				
Average Power: 10 Bursts	31.00 dBm	35.00 dBm	34.57 dBm	✓
Power Time Template: 10 Bursts			passed	✓

Ready 12:36:51 Yield 100% (1 / 1)

Pass Result case



Info Dialog

Tests Passed: 157
Tests Failed: 0
Tests with 'NAN': 0

Proceed

Fail Result case



Info Dialog

Tests Passed: 157
Tests Failed: 10
Tests with 'NAN': 0

Proceed

Go/NoGo Testing

1.2 Test with R&S/CMW500 (GSM, UMTS and LTE)

1.2.1 Equipment and Software

The following equipment has to be used:

- Rohde & Schwartz RF Package
 - Rohde & Schwartz RF Tester (CMW-500)
 - Rohde & Schwartz RF Shield Box (CMW-Z10)
 - Rohde & Schwartz RF Coupler (CMW-Z11)
- Grid Positioning Holder
- RF Test Cable Flexible 1M
- RF Adapter for RF Shield Box
- Nano USIM Card, instrument specific

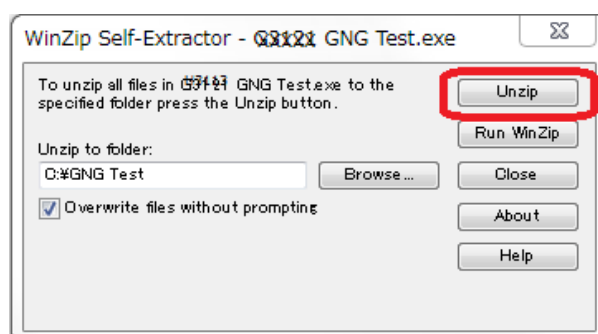
The following software and test script has to be used:

- CMWrun (version 1.8.9 or later)
This CMWrun is available from the following GLORIS web site.
<https://gloris.rohde-schwarz.com>
- Test script in 1315-6465: Go/No Go Radio Application Test

1.2.2 Install test script

This chapter explains how to install test script using H8216 as the example. The instruction for other variants are same as H8216's.

Execute the "H8216 GNG Test.exe" in "H82 GoNoGo Test\H8216 GoNoGo Test" folder, and click "Unzip" button.

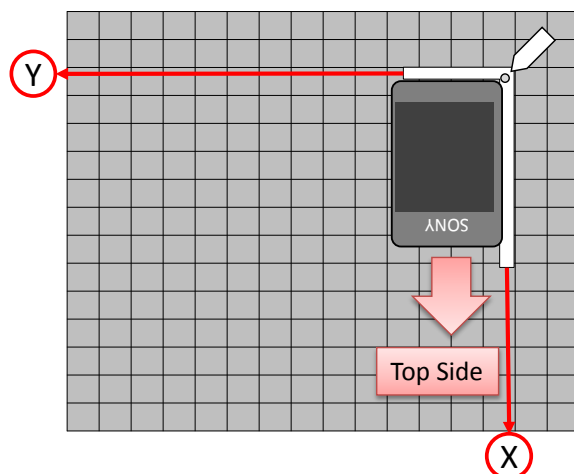


Then the following files will be extracted to "C:\GNG Test\H8216 GNG Test". Please do not modify this path.

File type	File name
GNG Test script	H8216 GNG Test.rstp
Attenuation table	H8216_GSM-ULfda H8216_GSM-DLfda H8216_WCDMA-ULfda H8216_WCDMA-DLfda H8216_LTE-ULfda H8216_LTE-DLfda

1.2.3 Put phone unit into shield box

Put the grid positioning holder with its reference point described in the following table.
And place the phone by the top side of phone towards yourself as shown in the adjacent picture. **Make sure your phone position and direction like the following picture.**



Commercial Name	X position	Y position
H8216	P	15
H8266		
H8296		

1.2.4 Execute CMWrun

Open the GNG Test script file with CMWrun, and run the test.

Note:

- "log" directory includes the execution log files as the reference.

2 Tested bands

This phone is available in 3 variants H8216, H8266 and H8296 including the following bands:

H8216:

GSM : 850 / 900 / 1800 / 1900

UMTS : 1 / 2 / 4 / 5 / 6 / 8 / 19^(*)

LTE : 1 / 2 / 3 / 4 / 5 / 7 / 8 / 12 / 13 / 17 / 19 / 20 / 26 / 28 / (29, 32)^(*) / 66 / 38 / 39 / 40 / 41 / (46)^(*)

H8266, H8296:

GSM : 850 / 900 / 1800 / 1900

UMTS : 1 / 2 / 4 / 5 / 6 / 8 / 19^(*)

LTE : 1 / 2 / 3 / 4 / 5 / 7 / 8 / 12 / 13 / 17 / 19 / 20 / 26 / 28 / (29, 32)^(*) / 66 / 38 / 39 / 40 / 41 / (46)^(*)

(*1) Band 19 is not tested with CMU200 due to RF tester limitation.

(*2) Band 29, 32 and 46 are not tested due to RF tester license issue.



Test and Calibration Repair Instruction

3 Revision History

Rev.	Date	Changes / Comments
1	Mar-13-2018	<ul style="list-style-type: none">Initial release