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YOKOGAWA 



WCDMA/GSM Mobile Phone Tester

VC200

Series

- Production Line **Calibration**
- Service Center **Repair**
- Mobile Phone Shop **Fault Find**



3 languages (English, Chinese, Japan)

WCDMA/GSM Mobile Phone Tester

VC200 Series



from Fault-finding to Component Level Tuning

The VC200 series has 3 models.

- Model 733013 VC210 GSM tester
- Model 733014 VC220 WCDMA tester
- Model 733015 VC230 GSM/WCDMA tester

By very simple operation a mobile phone is tested quickly.

The VC200 series is very useful for quick fault finding in a service center or final function testing on a production line.

It's a powerful yet easy to use tool regardless of the user's technical skill level.

● Inter-System handover test (WCDMA→GSM)
Model 733015 only

● Software upgrade from model 733013 or model 733014 to Dual tester, (Model 733015)

● Simple operation (one button test mode)

● Auto Test and Manual Test

● TxRx tester mode for non-call processing evaluation of components(modules)

● Automatic data saving in HDD

● Printing out test result files by a external printer

● Language : English, Chinese, Japanese

Function

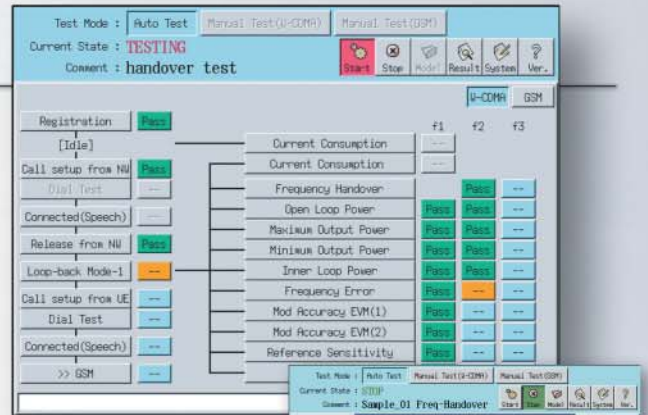
Auto mode (Scripted test) and Manual mode

Auto mode (Scripted test)

The Auto mode provides a fast Go/No-Go test with simple operation. Everybody can judge Pass or Fail without mistakes.

Simple operation in Auto mode

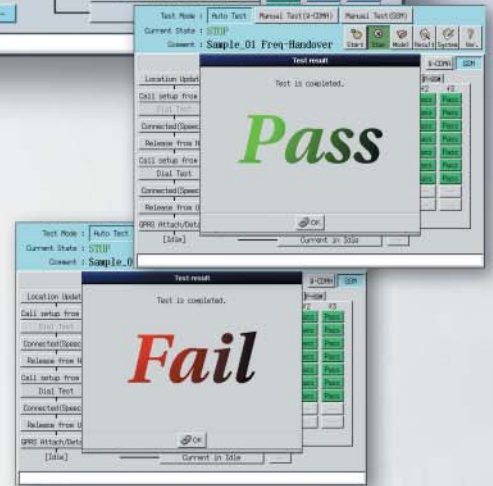
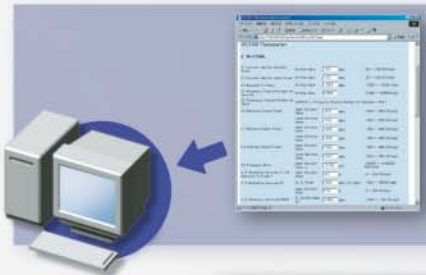
By only pressing the START button each of the items are automatically judged according to the test script which is selected in advance. The test result files are saved to the Hard Disc Drive.



Autol Mode display

Easy test script editing

The test script files for each mobile phone or each test condition can be stored in HDD. The test script file is edited by a Web browser. No special software is required. The test script files can be transferred to or from an external PC.



Test result print

Case 1

By connecting the USB printer to the VC200, the test result files in HDD can be printed. Using a network printer is also available.

Case 2

Free PC software "Result Viewer" has the capability for printing and editing the result files.



Network Capability

Through Ethernet the administrator can unify management of the test result files or the test script files held on each VC200 HDD.

WCDMA/GSM Mobile Phone Tester

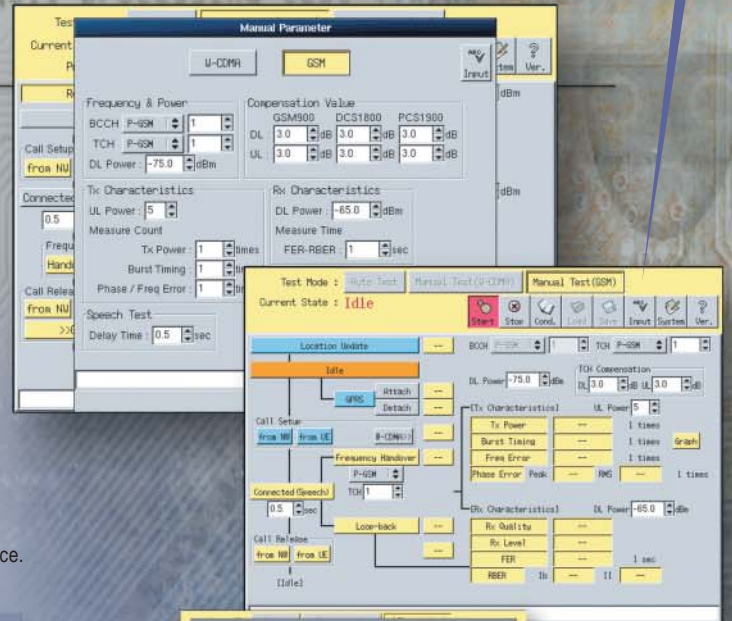
VC200 series



Manual Control or PC Control

Manual mode

The Manual mode provides for more detailed test conditions. Selected test items are measured repeatedly. Each test condition can be modified during the test by mouse operation or external PC control.



Stand-alone solution

All test conditions can be set without a PC.

Remote Control

The VC200 series allows users to control every function via Ethernet interface. Users can use the VC200 series with other GPIB products.



Burst timing

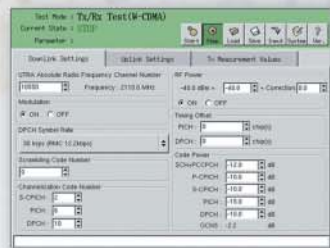


Inner loop power control

Tx/Rx Tester mode (Module Level Test)

The Tx/Rx Test mode does not use a call processing sequence. This is Non-Signaling mode. The VC200 series can test RF parameters

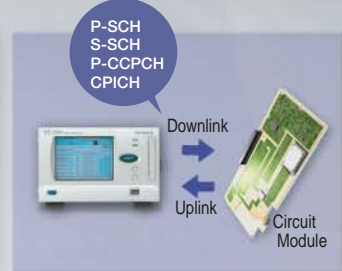
- RF signal generator
- RF power measurement
- EVM
- Frequency error
- Phase error only for GSM
- Burst timing only for GSM



WCDMA



GSM



Function

Other Function

Inter-System Handover Test (WCDMA to GSM)

The VC230 supports Inter-RAT handover. Total test time is reduced by this function. All test items are completed without a Location update.

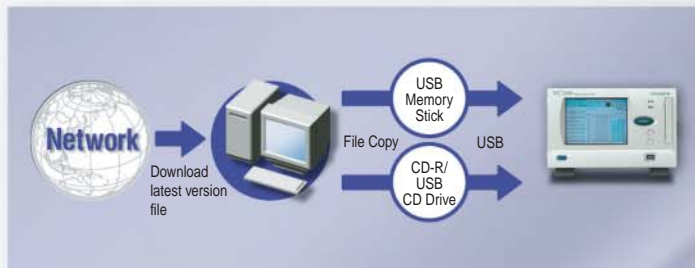


Firmware Update (No Charge)

The latest firmware is located on the Yokogawa Web site (www.yokogawa.com/tm). The VC200 update is done through the USB Interface.

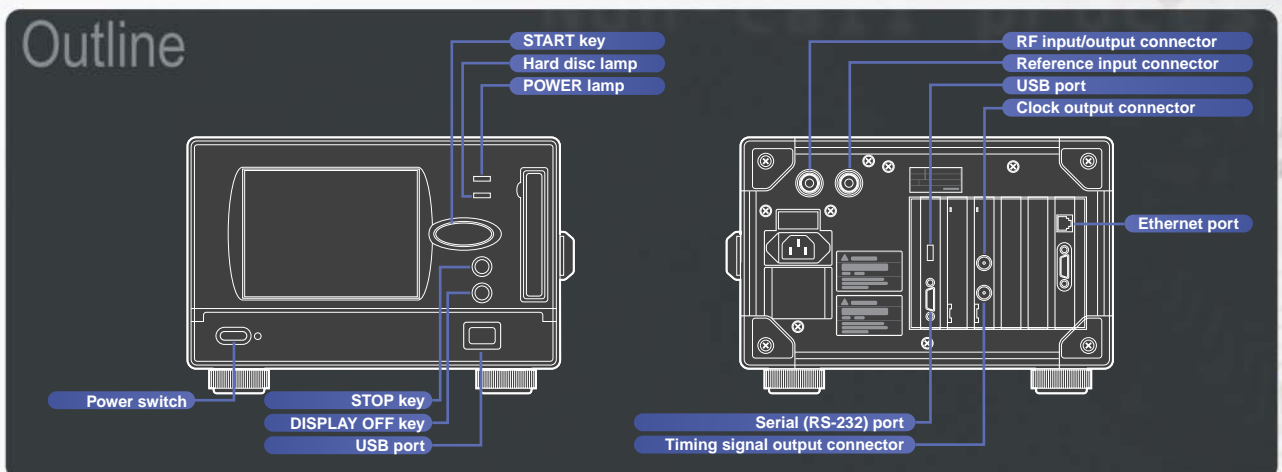
Option Upgrade by License Software Key (Additional Charge)

Model 733013 (GSM tester) and Model 733014 (WCDMA tester) can be upgraded to Model 733015 (GSM/WCDMA tester) for an additional charge by the option upgrade license software key.



High power signal output and low power signal measurement

Maximum downlink signal generation is -10 dBm
Minimum uplink signal measurement is -70 dBm



WCDMA/GSM Mobile Phone Tester

VC200
series

Specification

VC200 Series Specifications

<WCDMA part>**Model 733014 and 733015 W-CDMA Test Functions**

- Call Processing
- Frequency Switch
- Maximum Output Power Measurement
- Minimum Output Power Measurement
- Open Loop Power Control
- Inner Loop Power Control
- EVM / Frequency Error
- Reference Sensitivity (BER)
- Maximum Input (BER)
- Sound loop back

Transmission frequency

Band I (2110.0 to 2170.0MHz)
 Band II (1930.0 to 1990.0MHz)
 Band III (1805.0 to 1880.0MHz)
 Band VI (875.0 to 885.0MHz)

Transmission power

Range: -110.0 to -10.0 dBm (resolution : 0.1dBm)
 Absolute Accuracy: ± 1.5 dB (> -60dBm), ± 2.0 dB (< -60dBm)

Reception frequency

Band I (1920.0 to 1980.0MHz)
 Band II (1850.0 to 1910.0MHz)
 Band III (1710.0 to 1785.0MHz)
 Band VI (830.0 to 840.0MHz)

Reception power (Tx power measurement)

Maximum input level: +35dBm
 Measurement range: -70 to +35dBm
 Absolute accuracy: ± 1.5 dB

Frequency error measurement

Range: 0 to ± 10 kHz
 Residual error: ± 0.01 ppm

EVM measurement

Residual EVM: approx 4%

General specifications

Display: Color LCD VGA
 Interface: 100BASE-TX, USB, RS-232
 Language: English, Japanese, Chinese
 Operating Conditions Temperature: +5 to +35°C
 Humidity : 20 to 80%RH
 Rated supply voltage 100 to 120VAC / 200 to 240VAC
 Allowable supply voltage 48 to 63Hz frequency range
 Maximum power 150VA or less consumption
 External dimensions Approx. 283(W) \times 176(H) \times 303(D) mm
 Weight Approx. 6.5kg

<GSM part>**Model 733013 and 733015 GSM Test Functions**

- Call Processing
- Frequency switch
- Power measurement
- Phase and Frequency error
- Rx Quality
- Rx Level
- Loop back BER / FER
- Burst timing
- Sound loop back

GSM Band

GSM850, P-GSM, E-GSM, R-GSM, DCS1800, PCS1900

Transmission power

Range: -110.0 to -10.0 dBm (resolution: 0.1dBm)
 Absolute accuracy: ± 1.5 dB (> -60dBm), ± 2.0 dB (< -60dBm)

Reception power (Tx power measurement)

Maximum input level: +40dBm(GSM Burst), +35dBm(CW)
 Range: -40 to +35dBm
 Absolute accuracy: ± 1.5 dB

Phase error measurement

Range: peak 0.5 to 45deg, rms 0.5 to 20deg
 Residual error: Approx 1.4deg (rms)

Frequency error measurement

Range: 0 to ± 10 kHz
 Residual error: ± 0.02 ppm

Suffix code

Models & Suffix Code

Model	Suffix Code	Description
733013		VC210 GSM Tester
733014		VC220 WCDMA Tester
733015		VC230 GSM/WCDMA Tester
Power Code	-D	UL/CSA standard
	-F	VDE standard
	-Q	BS standard
	-R	AS standard
	-H	GB standard
Connection	-N	Type N RF Connector
Type	-T	Type TNC RF Connector

Accessory

Model	Suffix Code	Description
733065		Test USIM card
	-D01	For Japanese phones
	-E02	For UMTS

Option

VC-SHIELD specifications

Shield Box

Frequency : 800 to 2500MHz
 Shield Characteristic : < -60dB

Antenna Coupler (for air connection)

Frequency : 800 to 2500MHz
 Coupling Loss : < 20dB*
 Impedance : 50 Ohm
 Maximum Input Power : 0.25W
 RF Connector : Type N
 * Best case of antenna position

RF Cable Interface (for coaxial cable connection)

Frequency : 800 to 2500MHz
 Cable Loss : < 0.3dB
 (from External connector to Internal connector)
 Impedance : 50 Ohm
 External RF Connector : Type N
 Internal RF Connector : SMA

USB Interface

External USB Connector : Type B Receptacle
 Internal USB Connector : Type A Receptacle

UE Power Interface

External Power Connector : D-sub 9pin Plug
 Internal USB Connector : D-sub 9pin Receptacle
 Maximum voltage : 5V
 Maximum current : 2A

General Specification

Operating conditions

Temperature : +5 ~ +35°C
 Humidity : 20 ~ 80%RH

Storage conditions

Temperature : -20 ~ +60°C
 Humidity : 20 ~ 80%RH

External dimensions : Approx. 280(W)×280(H)×117(D) mm

Weigh : Approx. 2.6kg

Standard accessories : N-TNC cable 0.7m

Models & Optional accessories

Model	Description
733061	VC-SHIELD Shield Box



YOKOGAWA

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