

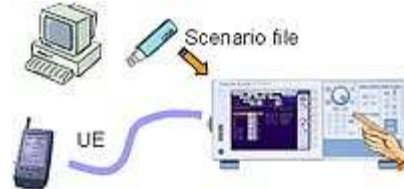


VC 3300 Features

Test Time Reduction

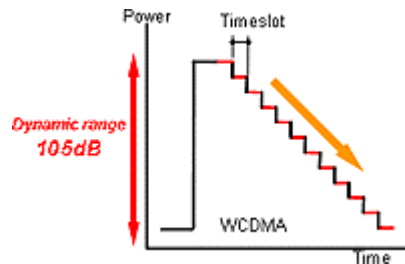
Three Different Test Modes

In addition to the Non-Signaling (Tx/Rx), and Signaling modes, the Scenario mode can be implemented as a standard feature. The Scenario mode automatically tests every item according to the scenario file which has been created and edited by PC software in advance. Automatic and stand-alone testing is available without remote control.



Dynamic Power Measurement

The Dynamic Power Measurement function enables the user to continuously measure the changing level power in one time slot. This function dramatically contributes to quick and accurate mobile RF tuning. In addition to reducing test time further, the VC3300 in WCDMA, has a wide dynamic auto-range of 105dB, where all tuning tests are available in one time slot.



High Class Testing Performance

Measurement accuracy, supported test items as well as test speed make the VC3300 a High Class Testing Performance platform. In WCDMA, the following items are all tested in < 0.2 seconds

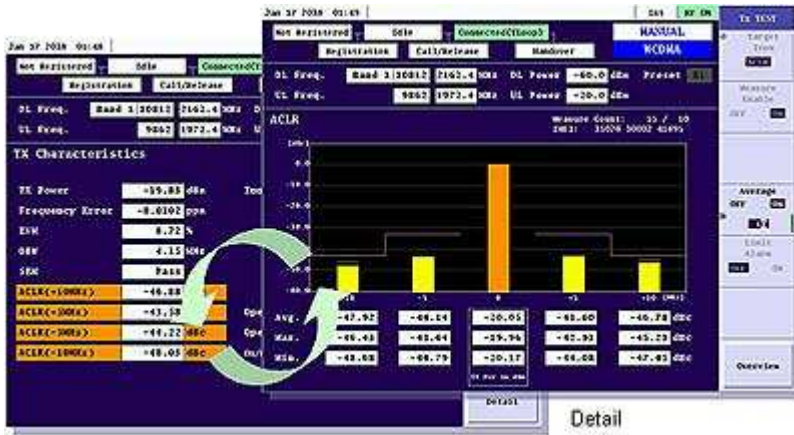
- Transmission Power
- Error Vector Magnitude (EVM)
- Frequency Error
- Adjacent Channel Leakage Power Ratio (ACLR)
- Occupied Bandwidth (OBW)
- Spectrum Emission Mask (SEM)





VC 3300 Features

Sophisticated GUI



Quickly change the display between "Detail" and "Overview" by hitting one button.

- Overview display shows all measured values for Tx or Rx test items.
- Detail display shows

Overview detailed information for each test item.

"Detail" and "Overview" display is switched by only one button.

Production Usage



Global Wireless Standard Support

GSM, Edge, WCDMA, HSDPA and TD-SCDMA are all supported. Inter system hand over and quick testing for multi mode mobile phones is also available.

Software Up-grade

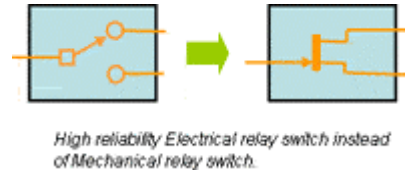
Each Wireless standard is available through its own unique software up-grade. The hardware capability for new coming standards, is implemented as a standard feature.



VC 3300 Features

No Mechanical Relay Switches

The VC3300 uses Electrical relays and not Mechanical relays to switch RF circuits and step attenuators. This reduces the potential for any failure's through heavy usage at the production testing stage. Yokogawa has achieved this big challenge without compromising high RF performance.



RF tuning and testing with/without Signaling

Key Features

- **WCDMA**
 - Signaling test
 - Call processing
 - Call setup from UE/Network
 - Call release from UE/Network
 - Emergency call (Without Test USIM), Frequency H/O
 - Voice/Video test
 - Voice loop back / Video loop back (TV call)
 - PN signal transmission
 - RF transmitter characteristic test
 - TX power (TPC : adjustable)
 - Error Vector Magnitude (EVM) / Frequency error
 - Adjacent Channel Leakage Power Ratio (ACLR)
 - Occupied bandwidth (OBW)
 - Spectrum emission mask (SEM)
 - Inner Loop Power Control
 - Open Loop Power (ON/OFF Power)
 - ON/OFF Time mask
 - RF receiver characteristic test
 - Minimum input level (Loop back BER)
 - Reference sensitivity (Loop back BER)
 - UE report



VC 3300 Features

- **HSDPA3.6**
 - RF transmitter characteristic test
 - Maximum output power
 - Occupied bandwidth (OBW)
 - Spectrum emission mask (SEM)
 - Adjacent Channel Leakage Power ratio (ACLR)
 - Error Vector Magnitude (EVM)
 - Frequency Error
 - RF receiver characteristic test
 - Through put measurement (Throughput, ACK count, NACK count, DTX count)
 - CQI measurement (Median, Average, Max/Min, Median +/-2, Graph)
 - UE information
 - HSDPA Category
- **GSM**
 - Signaling test
 - Location update
 - Call setup from UE/Network
 - Call release from UE/Network
 - Frequency H/O
 - Emergency call
 - Voice test
 - Voice loop back in call connection
 - RF transmitter characteristic test
 - TX power
 - Frequency error / Phase error
 - Burst timing
 - Flatness
 - Timing error
 - Spectrum characteristic
 - RF receiver characteristic test
 - Reference sensitivity (Measurement report RX_QUALITY)
 - Reception level (Measurement report RX_LEVEL)
 - Loop back FER / RBER
- **GPRS/EDGE**
 - Packet communication test
 - Test Mode A
 - Test Mode B
 - EGPRS SRBL Symmetry
 - RF transmitter characteristic test
 - TX power / Burst timing / Frequency Error
 - EVM (RMS/Peak) / Phase Error (RMS/Peak)
 - Magnitude Error (RMS/Peak)
 - Origin offset
 - 95th percentile
 - Spectrum
 - RF receiver characteristic test
 - BLER, BER, CRC Error, Data Rate, C Value, Receiver quality, Signal VAR, GMSK-MEAN-BEP, 8PSK-MEAN-BEP, GMSK-CV-BEP, 8PSK-CV-BEP



VC 3300 Features

- **TD-SCDMA**
 - Transmitter characteristics test
 - Max/Min Output Power
 - Open Loop Power Control
 - Closed Loop Power Control
 - Occupied Bandwidth (OBW)
 - Spectrum Emission Mask (SEM)
 - Adjacent Channel Leakage Power Ratio (ACLR)
 - Error Vector Magnitude (EVM)
 - Frequency Error
 - Peak Code Domain Error
 - Receiver characteristics test
 - Reference Sensitive Level
 - Maximum Input Level