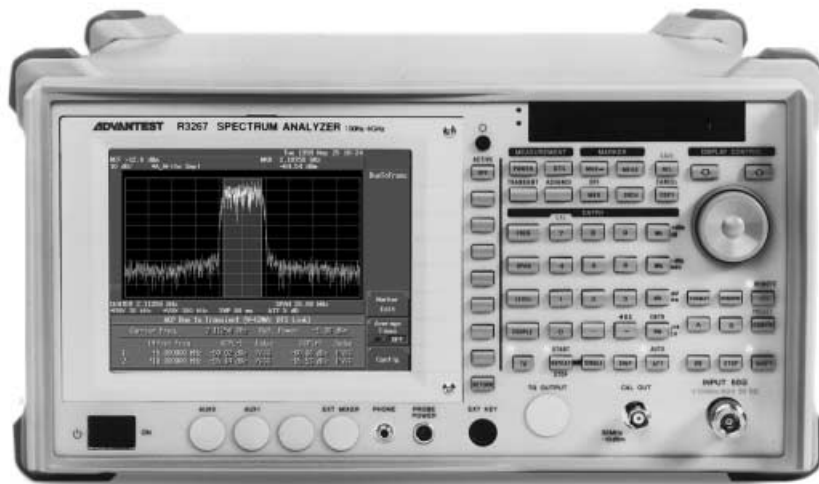


For W-CDMA/3GPP Transmission Test



Spectrum Analyzer R3267/3273

■ Overview

Installation of the W-CDMA/3GPP analysis software option (OPT.62) in the R3267/3273 enables modulation signal analysis and specification items measurement of W-CDMA-BTS/MS, 3GPP-BS/UE signals. I/Q baseband input as well as RF input can be selected, so consistent modulation analysis can be performed on the module and system level. (Operation of OPT.62 require Digital Modulation Analysis Option (OPT.01).)

■ Target systems

W-CDMA-BTS/MS

3GPP-BS/UE

3GPP : Technical Specification	
TS 25.101	V3.3
25.104	V3.3
34.121	V3.1
25.141	V3.2

■ Features

- Dual mode analysis
 - Spectrum analyzer mode

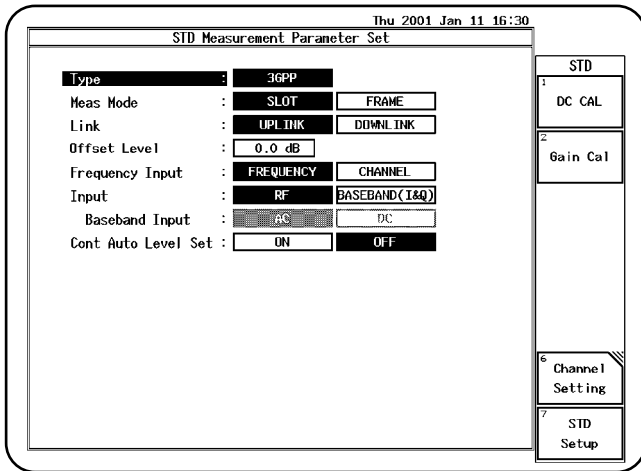
(R3267	20Hz to 8GHz
R3273	20Hz to 26.5GHz
 - W-CDMA/3GPP Tx tester mode
- Standard item measurement such as Modulation Accuracy and Code Domain Power, etc.
- Automatic setting of W-CDMA, and 3GPP parameters
- Simple operation with conversational key menu
- Graphics Analysis Function as standard

■ Measurement items

- | | |
|-----------------------------------|--|
| ● Power | ● Phase Error |
| ● Due to Transient (ACLR) | ● Error Vector Magnitude |
| ● OBW | ● Peak Code Domain Error |
| ● Spurious | ● Code Domain Power / ρ (graph/list) |
| ● Spectrum Emission Mask | ● Time-Code Domain Power / ρ (graph/list) |
| ● Waveform Quality (ρ) | ● Graphics Analysis |
| ● Time Alignment Error (τ) | ● Tx power (DSP) |
| ● Carrier Frequency Error | ● Power vs. Time |
| ● I/Q Origin Offset | ● CCDF |
| ● Magnitude Error | |

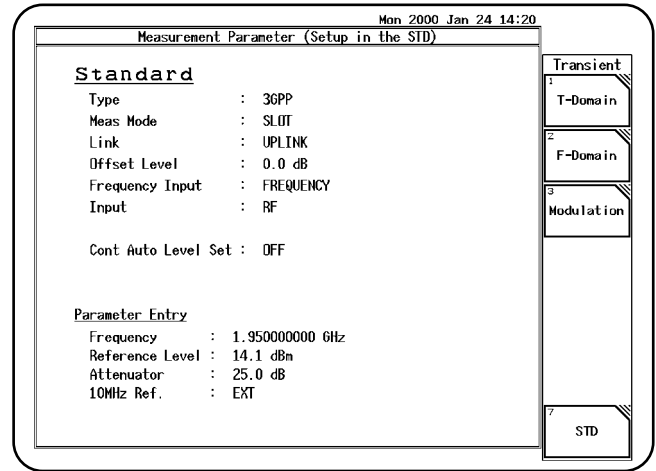
Display Example

STD parameter setup menu



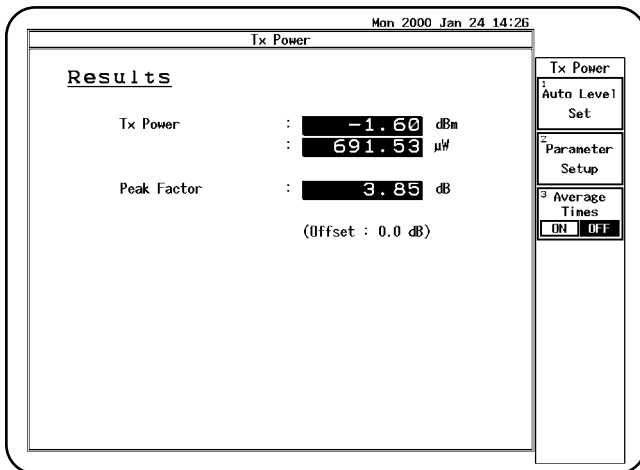
<3GPP>

TRANSIENT (Tx tester mode) menu



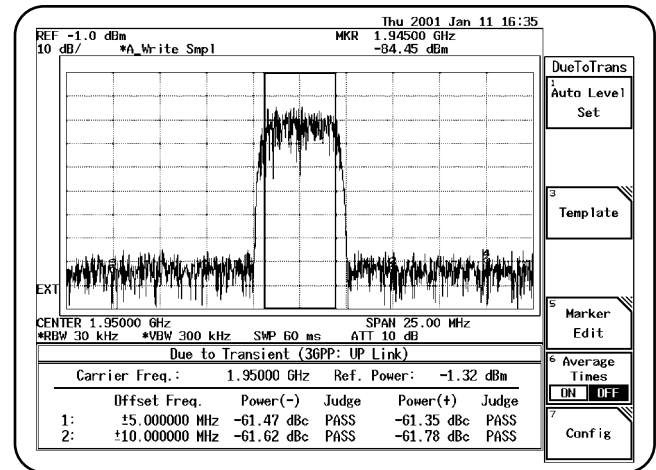
<3GPP>

Tx power measurement



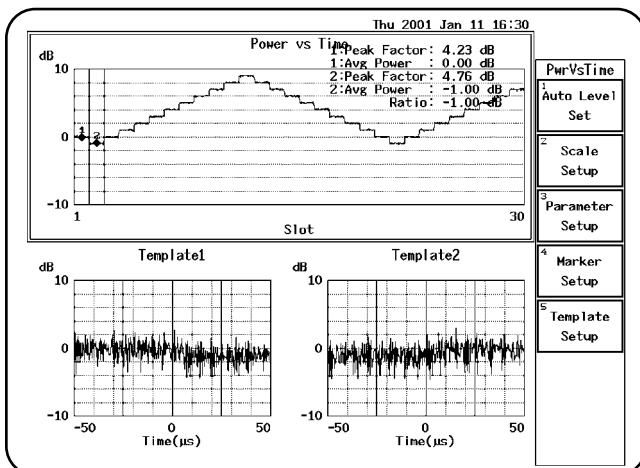
<3GPP>

Due to Transient (ACLR) measurement



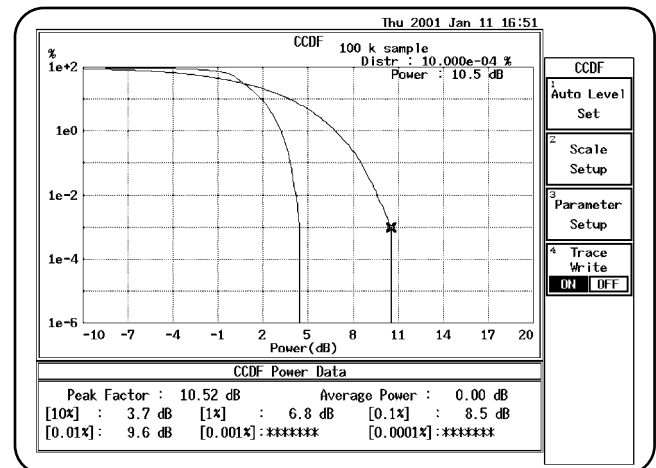
<3GPP>

Power vs. Time



<3GPP>

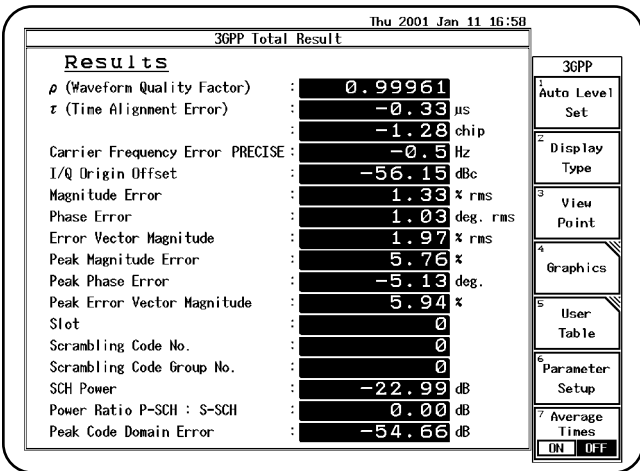
CCDF



<3GPP>

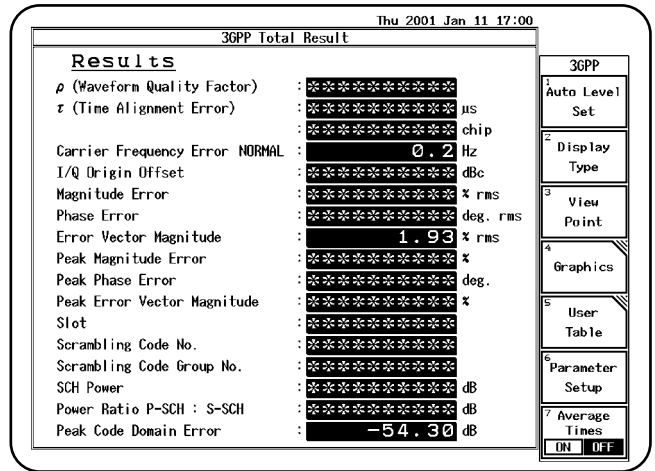
W-CDMA/3GPP Analysis Software Option (OPT.62)

Modulation analysis measurement (PRECISE mode)



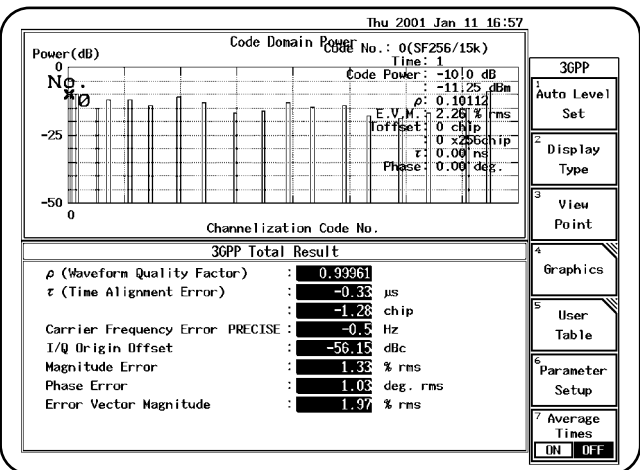
<3GPP-BS>

Fast Modulation analysis measurement (CONCISE mode)



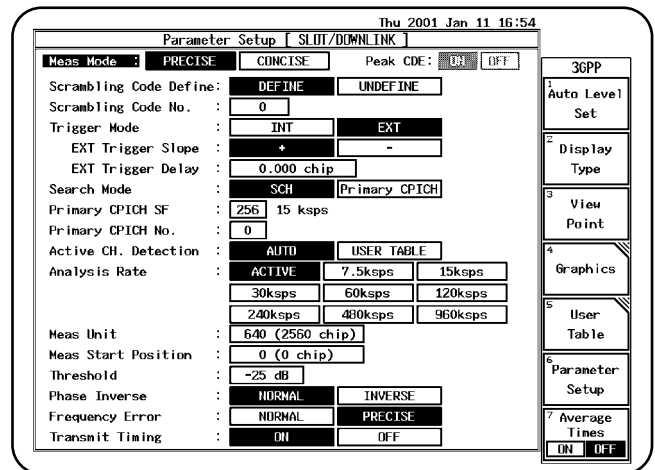
<3GPP-BS>

CDP measurement (Dual disp.)



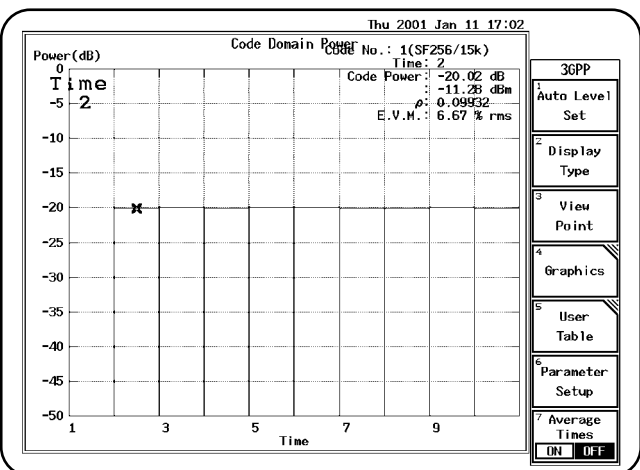
<3GPP-BS>

Modulation analysis measurement (Parameter setup)



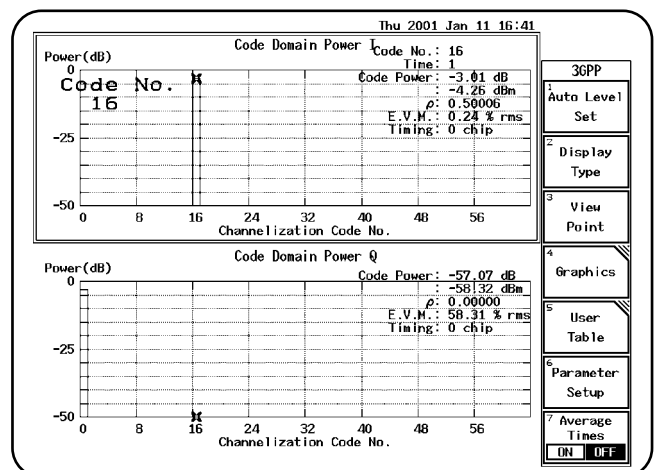
<3GPP-BS>

Time-CDP measurement



<3GPP>

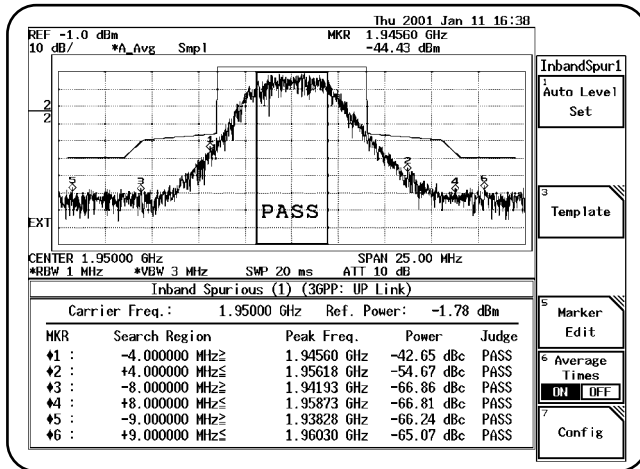
CDP measurement



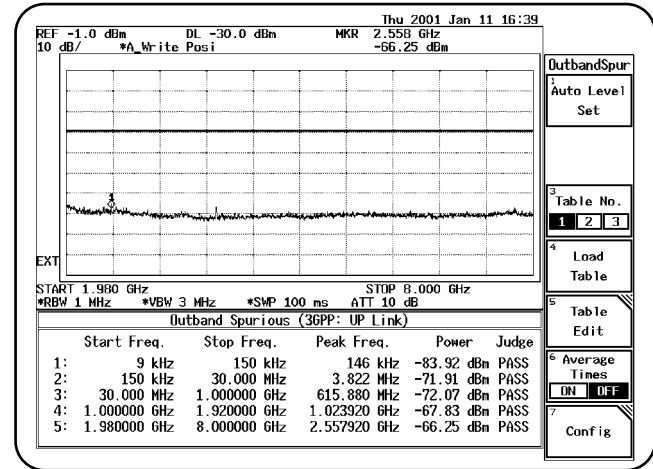
<3GPP-UE>

W-CDMA/3GPP Analysis Software Option (OPT.62)

Inband Spurious (UP Link)



Outband Spurious (UP Link)



Specifications

	Specification
Measurement frequency range	30MHz to 3.0GHz
Input level range	-30dBm to +30dBm (@ ATT auto, Total power) -40dBm to +30dBm (@ ATT MNL, Total power)
Carrier frequency error measurement accuracy	±(Reference accuracy × Carrier frequency + 30 Hz) W-CDMA/QPSK modulation analysis mode ±(Reference accuracy × Carrier frequency + 10 Hz) 3GPP modulation analysis mode (@Carrier frequency : ≤ ±1 kHz)
Modulation accuracy	Residual vector error : <3%, Measurement range : 0% to 17.5%, Accuracy : <±2%
Chip rate	4.096Mcps (W-CDMA)/3.84Mcps (3GPP)
Rolloff factor	0.22

QPSK modulation analysis mode

Waveform quality	Accuracy : < 0.001
------------------	--------------------

W-CDMA/3GPP modulation analysis mode (DOWN LINK)

Waveform quality	Accuracy : < 0.002
Code domain power	Accuracy : < ± 0.1dB

* W-CDMA : Each DTCH Signal level = -5.44 dBc, Level ratio ; Perch : DTCH = 1:2:2:2

* 3GPP : Level ratio ; Primary CPICH : P-CCPCH : SCH : DPCH×3ch =1:0.9:0.1:2:2:2)

W-CDMA/3GPP modulation analysis mode (UP LINK)

Waveform quality	Accuracy : < 0.001
------------------	--------------------

* 3GPP : Level ratio ; I-channel (DPDCH) : Q-channel (DPCCH) =0.82 : 0.18

I/Q input

Connectors	BNC female (rear panel)
Input Impedance	50 Ω (nominal)
Coupling	DC or AC
Input level	0.25V to 0.9Vp-p (DC : < ± 0.47V)
Modulation accuracy	Residual vector error : <3%

Technology Support on the Leading Edge

ADVANTEST®

Your Local Representative

ADVANTEST CORPORATION

Shinjuku-NS Building, 4-1, Nishi-Shinjuku 2-chome, Shinjuku-ku, Tokyo 163-0880, Japan
Phone:+81-3-3342-7500 Facsimile:+81-3-5381-7661 Telex:232-4914 ADVAN J

Advantest (Singapore) Pte. Ltd. : 438A Alexandra Road #08-03/06 Alexandra Technopark Singapore 119967 Phone: +65-274-3100

Tektronix Inc :

(North America)

Phone: +1-800-426-2200

Rohde & Schwarz Engineering and Sales GmbH :

(Europe)

Phone: +49-89-4129-13711

Homepage <http://www.advantest.co.jp>

Data subject to change without notice. © Copyright 2000 ADVANTEST CORPORATION

We use recycled paper for the environmental protection.