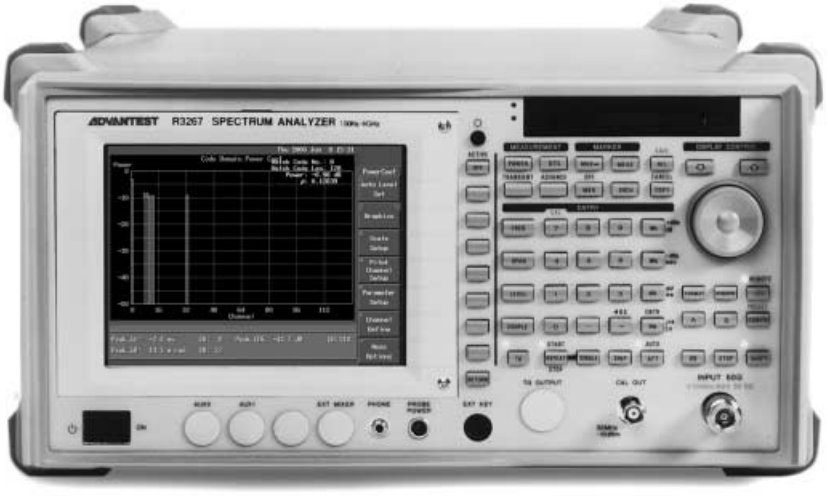
Technology Support on the Leading Edge
ADVANTEST
ADVANTEST CORPORATION

Spectrum Analyzer R3267/3273
cdma2000 Analysis Software Option (OPT.65)

For cdma2000 Transmission Test



Spectrum Analyzer R3267/3273

■ Overview

The cdma2000 analysis software option (OPT.65) makes R3267/3273 possible to measure the transmission test items for cdma2000 1X system.

This option contributes to both base station/mobile station for each band class with a single unit. In addition, waveform quality (Rho etc.) and code domain power measurement are possible. (Operation of OPT.65 require Digital Modulation Analysis Option (OPT.01).)

■ Target systems

cdma2000 1X system

BS : RC1 to RC5

MS : RC3, RC4

(RC1 and RC2 measurement of MS require cdmaOne (IS-95B) Analysis Software Option (OPT.61).)

■ Features

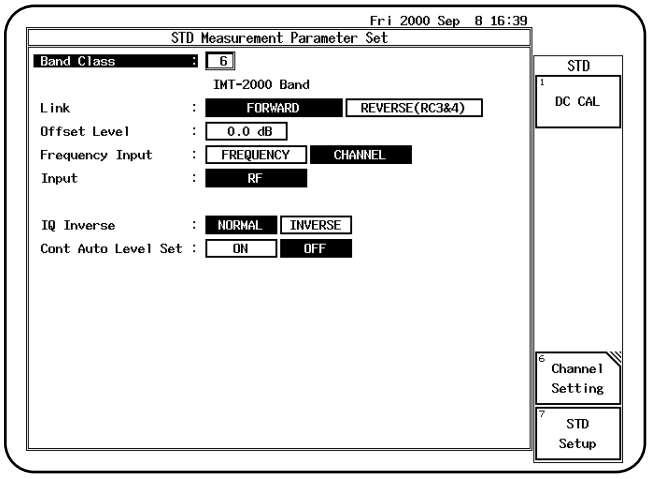
- Dual mode analysis
  - Spectrum analyzer mode
    (R3267 20Hz to 8GHz
    R3273 20Hz to 26.5GHz)
  - cdma2000 Tx tester mode
- Standard item measurement such as Rho (ρ) and code domain power, etc.
- Automatic setting of cdma2000 parameters
- Simple operation with conversational key menu.
- Standard limit test function is provided

■ Measurement items

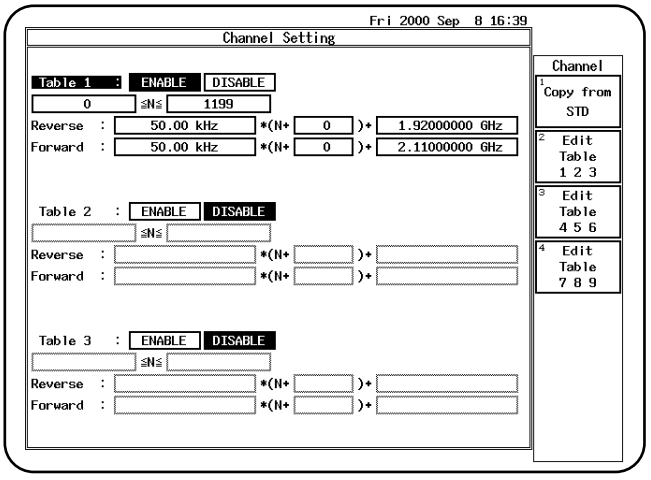
- **Channel (F-Domain) power**
- **Gated output (T-Domain) power**
- **Tx power**
- **ON/OFF ratio**
- **OBW**
- **Due to Trans. (Spectrum Mask)**
- **Waveform quality (Multiple ρ)**
- **Time Alignment Error (τ)**
- **Frequency Error**
- **Code domain power/ρ/τ/θ, CDE**
- **Spurious emissions**
- **Graphics analysis**
- **CCDF**

Display Example

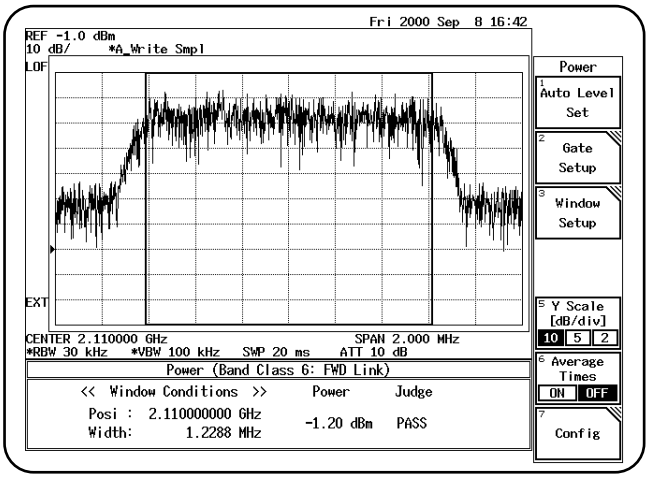
STD parameter setup menu



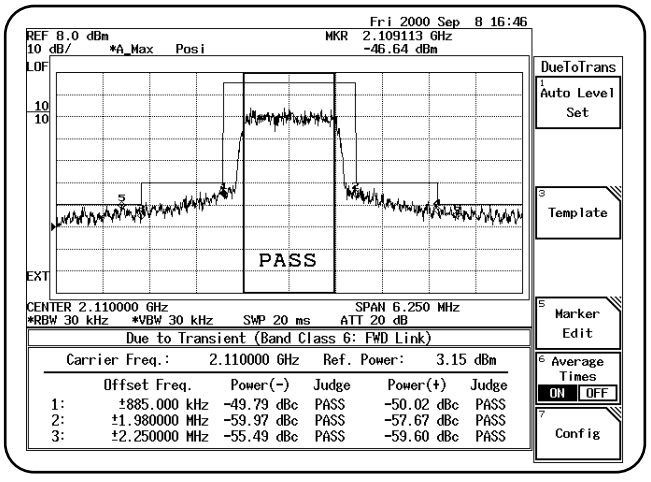
Channel setup menu



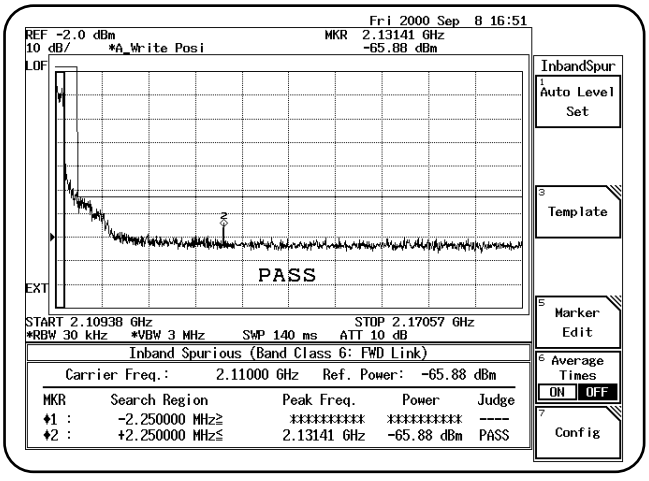
Channel Power



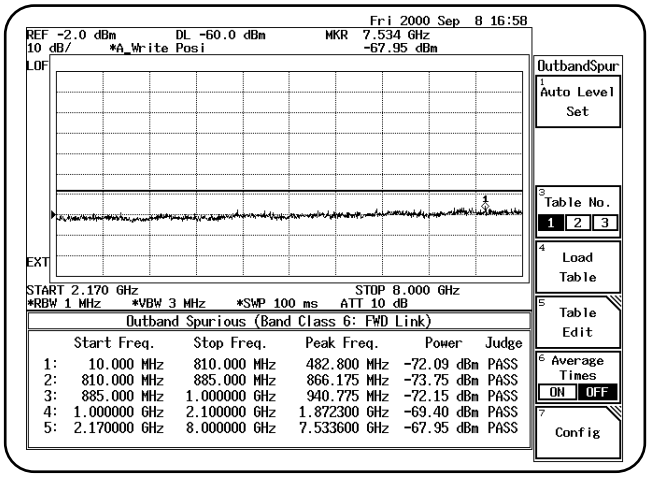
Due to Trans. (Spectrum Mask)



In-Band spurious

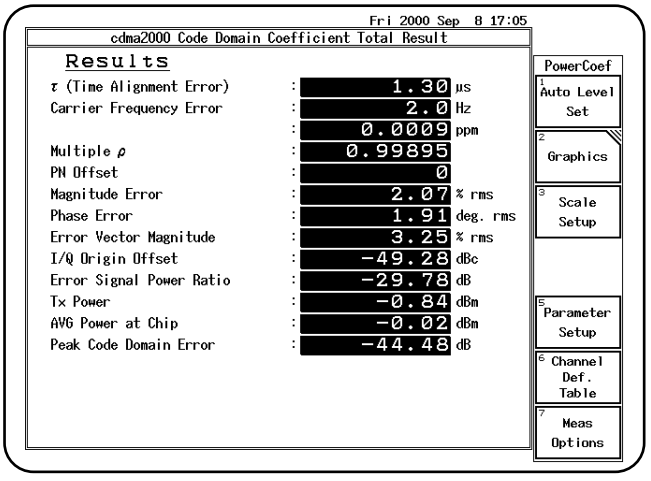


Out-Band Spurious



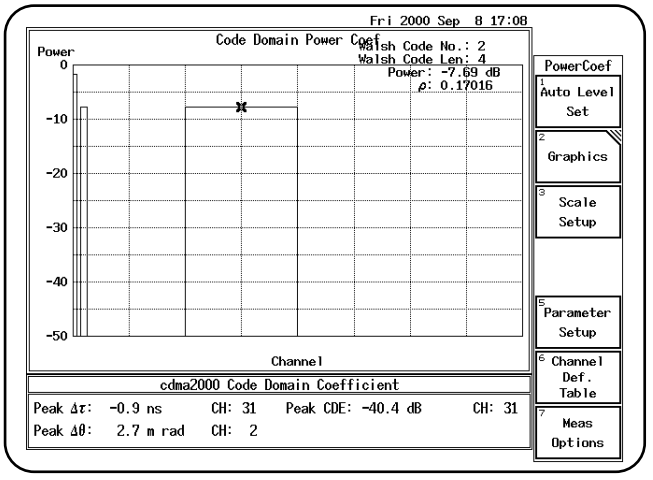
•cdma2000 Analysis Software Option (OPT.65)

■ Code domain coefficient (Total result)



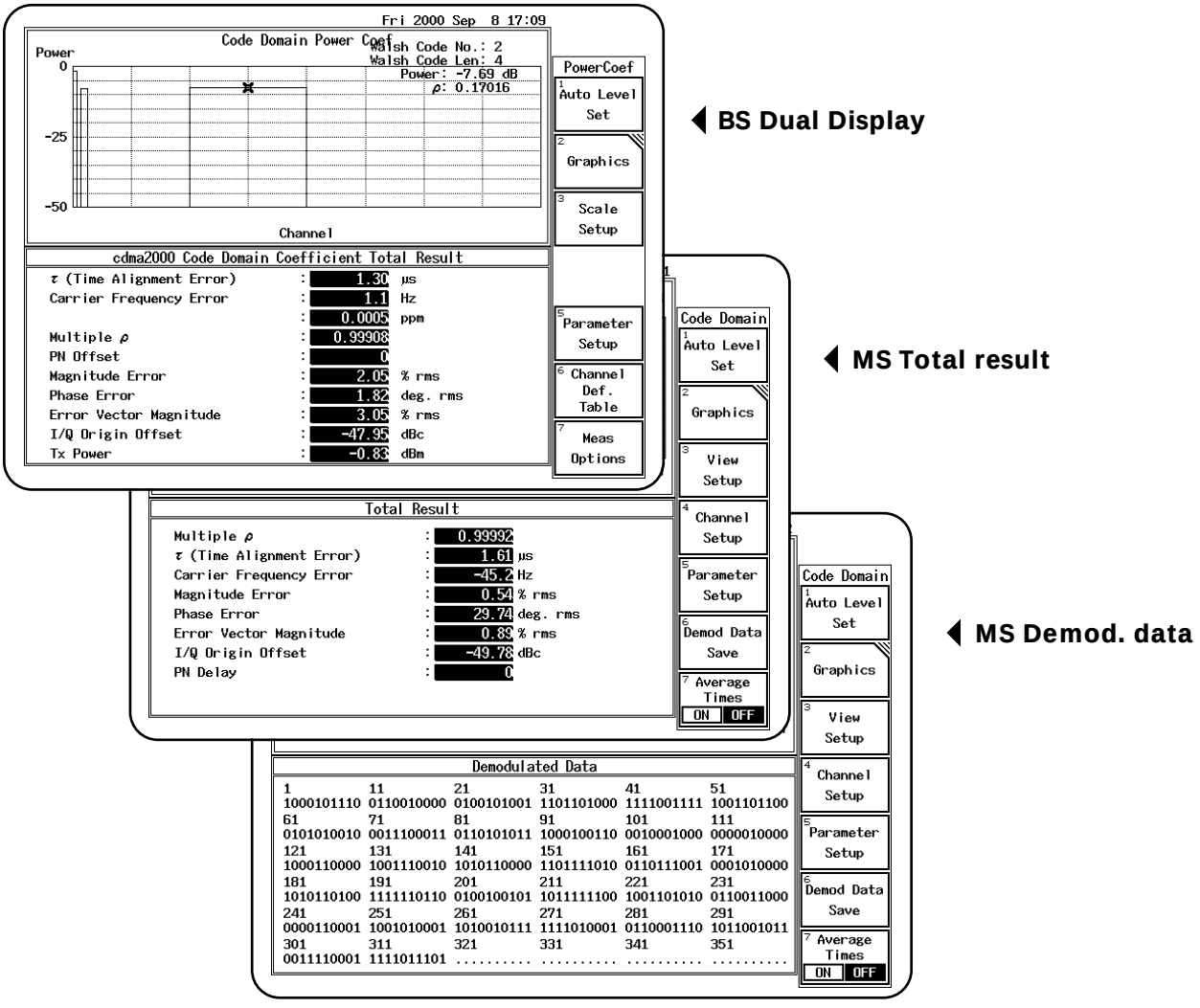
<BS>

■ Code domain power



<BS>

■ Code domain power



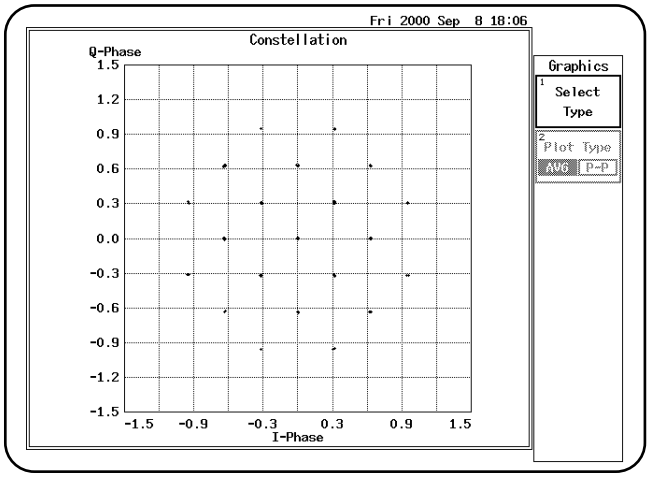
◀ BS Dual Display

◀ MS Total result

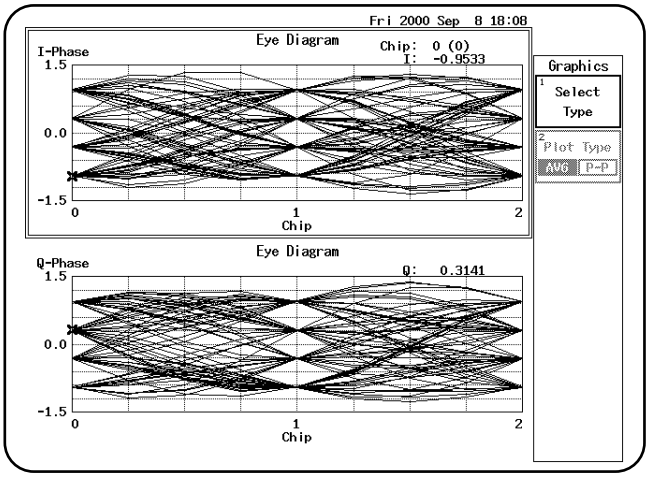
◀ MS Demod. data

cdma2000 Analysis Software Option (OPT.65)

Constellation (Dot) display



I/Q Eye diagram display



FORWARD Link

Items	Specifications
Code Domain Power Measurement	IS-97 "Base Station Test Model" measurement
Frequency range	30MHz to 3.0GHz
Input level	-30dBm to +30dBm (@ATT auto, Total power)
	(@1280 chip measurement)
POWER i	Accuracy : < ±0.1dB (@$\Delta\tau i$=0)
Carrier frequency error	Accuracy : < ± (Frequency reference accuracy × Carrier frequency + 10Hz) (@Carrier frequency ≤±4kHz, Carrier Freq. Search=10kHz)
$\Delta\tau i$	Accuracy : < ±10ns
$\Delta\theta i$	Accuracy : < ±10mrad

REVERSE Link

Items	Specifications
Code Domain Power Measurement	Measurement Signal Condition

Reverse Traffic channel Long Code Mask : ALL 0

Channel	Walsh function	Amplitude
PICH	W_0^{32}	-6.99dB
DCCH	W_8^{16}	-6.99dB
SCH2	W_6^{8} (M=2)	-6.99dB
FCH	W_4^{16}	-6.99dB
SCH1	W_2^{4} (M=2)	-6.99dB

M : Walsh Function Repetition Factor

Frequency range	30MHz to 3.0GHz
Input level	-30dBm to +30dBm (@ ATT auto, Total power)
Precise Mode	(@1536 chip measurement)
POWER i	Accuracy : <±0.1dB
Carrier frequency error	Accuracy : <± (Frequency reference accuracy × Carrier frequency +10Hz) (@Carrier frequency ≤±4kHz, Expand mode)

Technology Support on the Leading Edge

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