Technology Support on the Leading Edge
ADVANTEST
ADVANTEST CORPORATION

Spectrum Analyzer R3267/3273
GSM/DECT Analysis Software Option (OPT.63)

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(Rev.3)

For GSM/GPRS/EDGE/DECT Transmission Test

Spectrum Analyzer R3267/3273

Photo is additional TG option

■Overview

The GSM/DECT analysis software option (OPT.63) makes R3267/3273 possible to measure the GSM/GPRS/EDGE/DECT transmission test items.

This option contributes to both base station/mobile station with a single unit. In addition, modulation analysis and graphics analysis are possible (Operation of OPT.63 require Digital Modulation Analysis Option (OPT.01).)

■Target systems

- GSM450/480/850/900/DCS1800/PCS1900 - BTS/MS
- DECT - RFP/PP

■Features

- Dual mode analysis
  - Spectrum analyzer mode

    (R3267 20Hz to 8GHz
    R3273 20Hz to 26.5GHz)
  - GSM/GPRS/EDGE/DECT Tx tester mode
- Measurement of specified modulation analysis items
- Automatic setting of GSM/GPRS/EDGE/DECT parameters
- Simple operation with conversational key menu
- Standard limit test function is provided

■Measurement items

- **Power**
- **On/Off Ratio**
- **Spurious**
- **Due to Transient**
- **Due to Modulation**
- **Power vs Time**
- **Graphics analysis**
- **Tx Power(DSP)**
- **Frequency error**

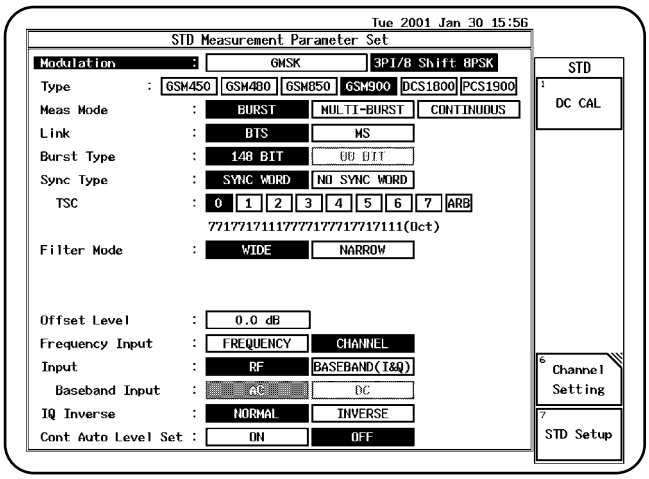
□ **GSM/DCS1800/1900**
- **Phase Error**

□ **EDGE**
- **Modulation Accuracy (I/Q Origin offset/ EVM/ Peak EVM/ 95:th percentile)**

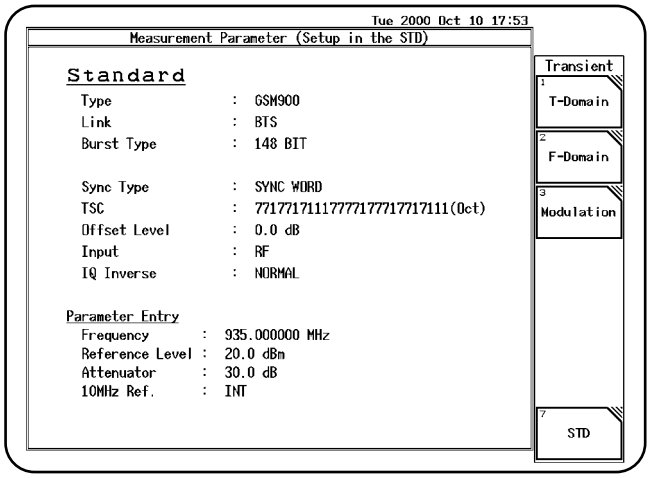
□ **DECT**
- **Freq. Deviation**
- **Timing Jitter**

Display Example

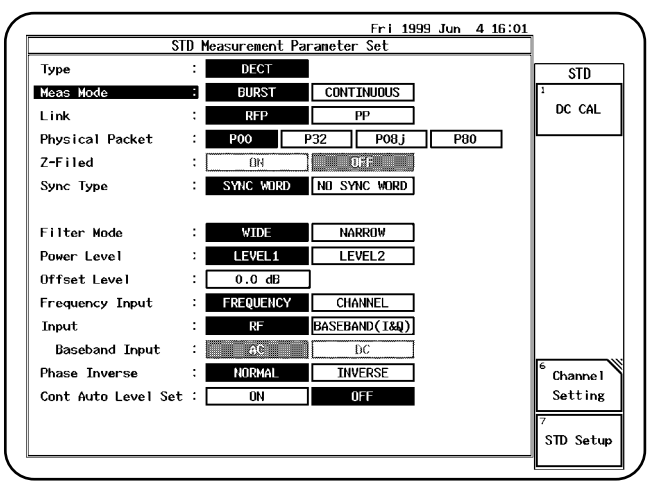
■STD parameter setup menu (GSM/EDGE)



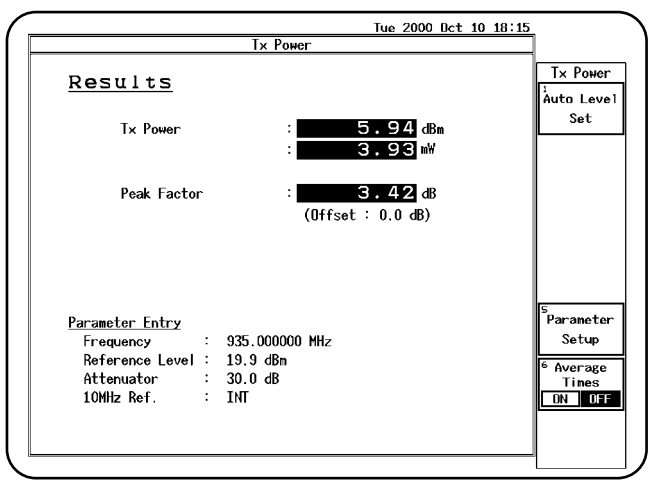
■TRANSIENT (Tx tester mode) menu



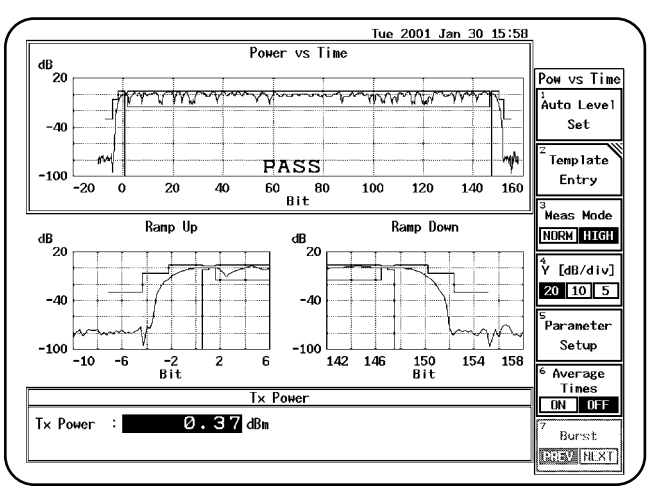
■STD parameter setup menu (DECT)



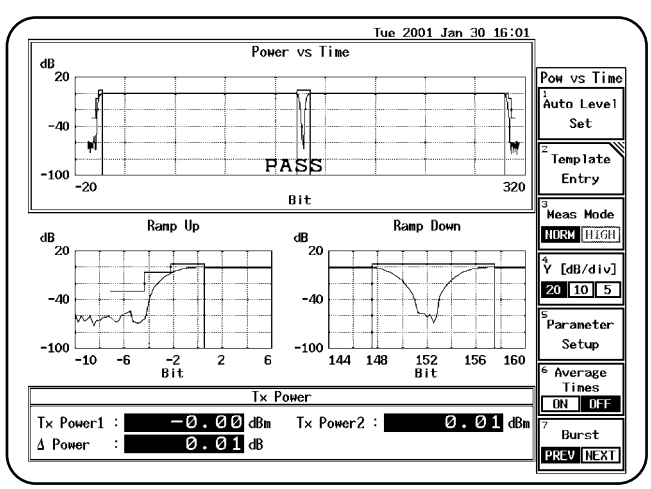
■Tx Power (EDGE)



■Power vs Time (EDGE)

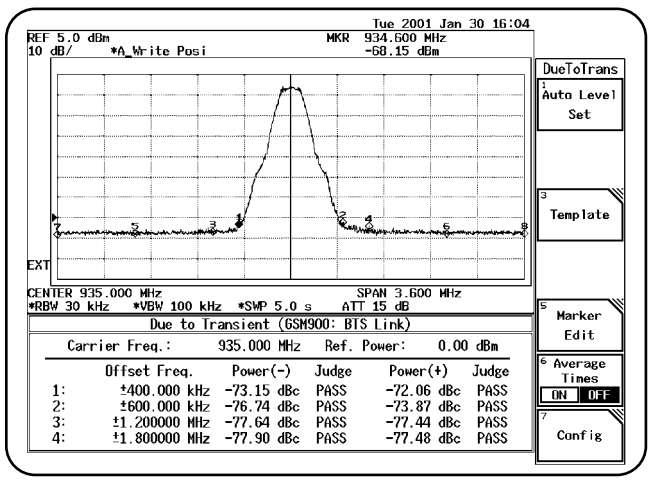


■Power vs Time (GPRS)

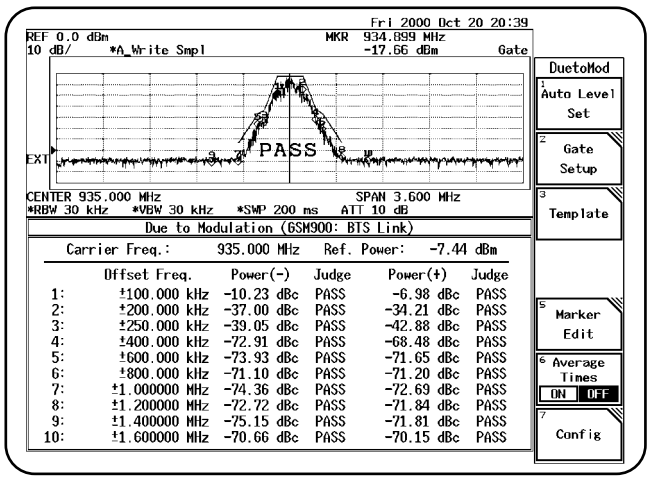


GSM/DECT Analysis Software Option (OPT.63)

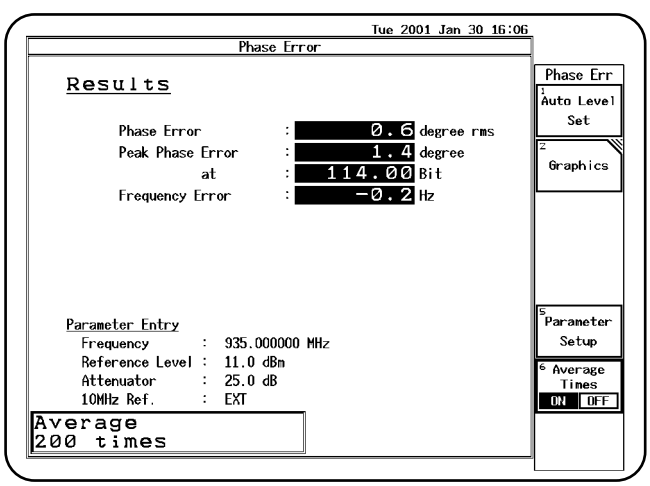
■Due to Transient



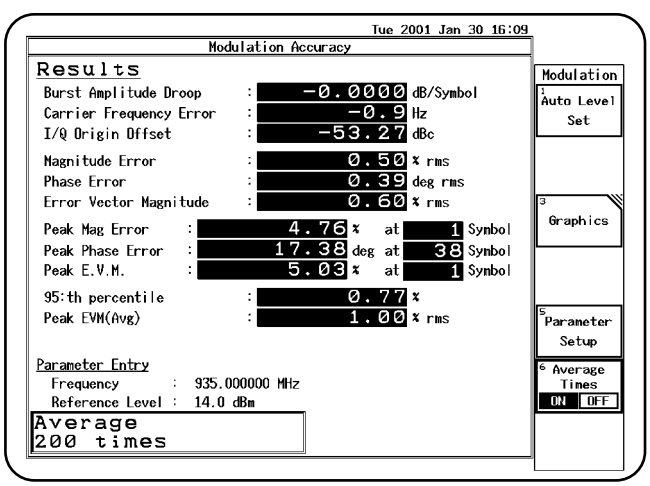
■Due to Modulation



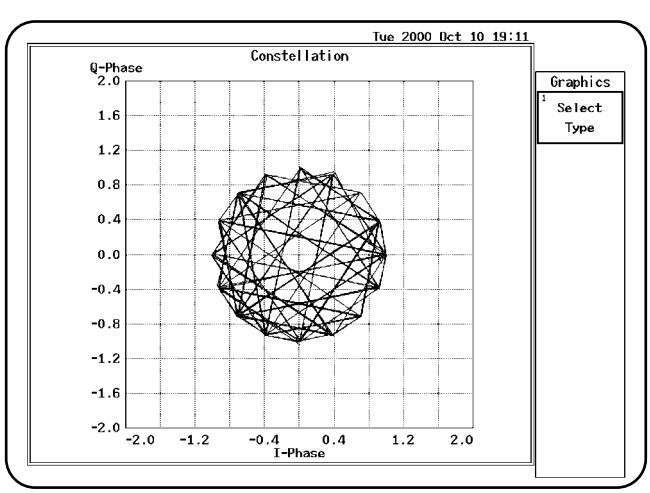
■Phase Error (GSM)



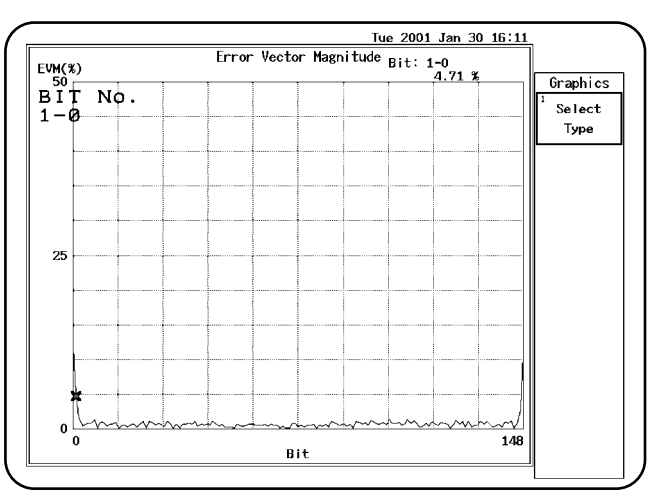
■Modulation Accuracy (EDGE)



■Constellation (Line) display (EDGE)

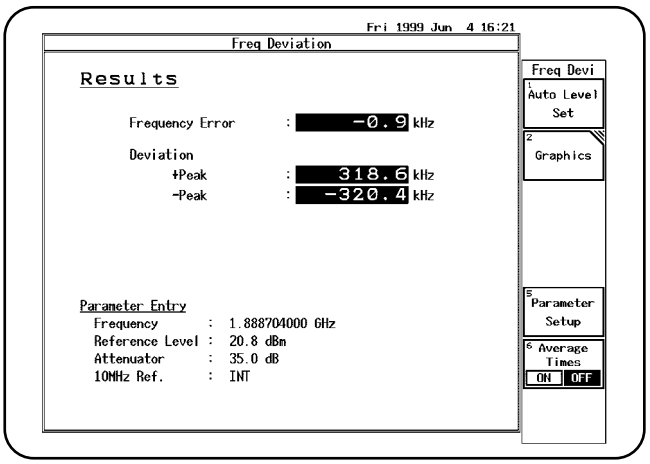


■E.V.M. vs Symbol display (EDGE)

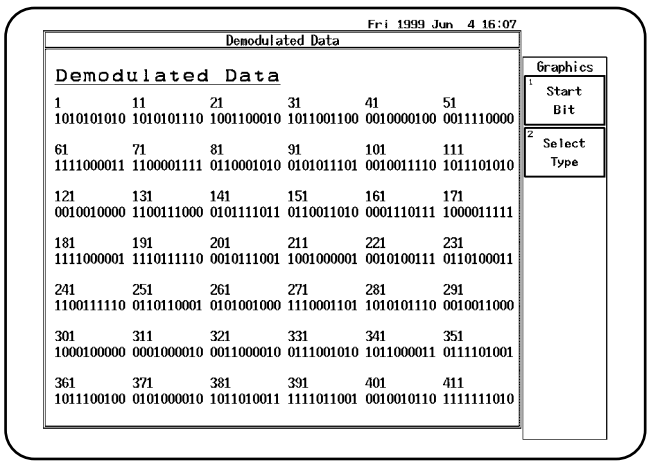


GSM/DECT Analysis Software Option (OPT.63)

■Freq. Deviation measurement (DECT)



■Demodulated data display (DECT)



■Specifications (RF Input)

Items	Specifications	Items	Specifications
GSM Measurement		DECT Measurement	
Target Modulation	GMSK(GSM450, GSM480, GSM850, GSM900, DCS1800, PCS1900)	Target Modulation	GFSK(DECT)
Frequency Range	30 MHz to 3.0 GHz	Frequency Range	30 MHz to 3.0 GHz
Input Level	-30 dBm to +30 dBm	Input Level	-30 dBm to +30 dBm
Frequency/Phase Error		Frequency Deviation	
Frequency Error Range	< ±10 kHz	Accuracy	< ±(Frequency reference accuracy × Carrier frequency +10 kHz) @maximum and minimum deviation
Accuracy	< ±(Frequency reference accuracy × Carrier frequency + 5 Hz)	Frequency Error	
Phase Error Range	≤ ±30°(peak)	Accuracy	< ±(Frequency reference accuracy × Carrier frequency +10 kHz)
Accuracy	≤ ±5° (peak) ≤ ±1° (rms)	Jitter Meas.	
EDGE Measurement		Accuracy	< ±0.1 μ Sec PP to PP, RFP to RFP, RFP to PP bursts
Target Modulation	3π/8 shift 8PSK (GSM450, GSM480, GSM850, GSM900, DCS1800, PCS1900) (Basedand Filter : Linearized Gaussian Filter)		
Frequency Range	30 MHz to 3.0 GHz		
Input Level	-30 dBm to +30 dBm		
Frequency Error Accuracy	< ±(Frequency reference accuracy × Carrier frequency + 10 Hz)		
Modulation Accuracy Residual Vector Error	<1.8% (rms)		

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