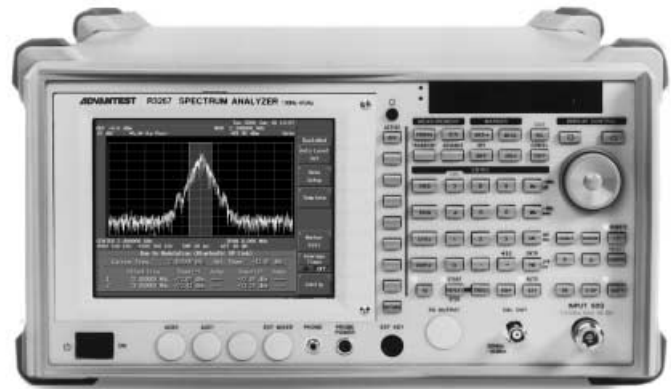


## For Bluetooth Transmission Test

- Measurement of RF test Specification items.
- Modulation analysis of frequency hopping signals.
- Graphics analysis functions.
- Applicable for variety mobile communication systems.
- High-performance spectrum analyzer and Tx tester integrated in a single unit.
- Wide frequency range.  
 R3267: 20 Hz to 8 GHz  
 R3273: 20 Hz to 26.5 GHz



Spectrum Analyzer R3267/3273

### Overview

The Bluetooth analysis software option (OPT.66) makes R3267/3273 possible to measure the Bluetooth RF Test Specification Items (Bluetooth SIG).

The R3267/3273 can be applicable for variety mobile communication systems such as 3GPP, GSM, EDGE and cdma2000. (Operation of OPT.66 require digital modulation analysis hardware option (OPT.01).)

### RF Test Specification Items

5.1.3	Output Power	yes
5.1.4	Power Density	yes
5.1.5	Power Control	yes
5.1.6	TX Output Spectrum Freq.range	yes
5.1.7	TX Output Spectrum	yes
5.1.8	Adjacent channel power	Partially yes
5.1.9	Modulation Characteristics	yes
5.1.10	Initial Carrier Freq.Tolerance	yes
5.1.11	Carrier Freq. Drift	yes
5.1.12	Out-of-Band Spurious	yes

Partially yes : Detector Mode: Average is not supported

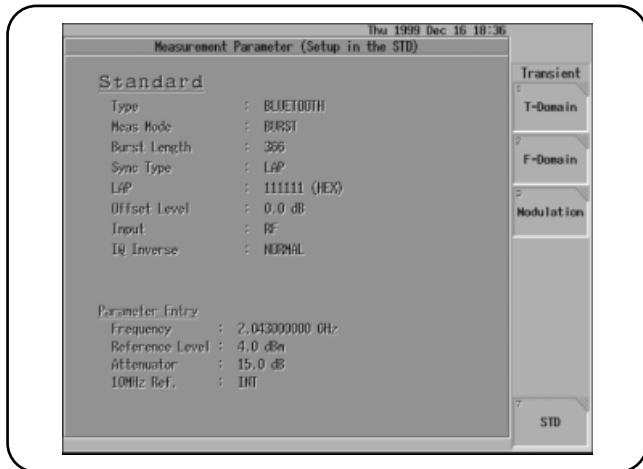
### Features

- **Exclusive parameters of Bluetooth RF Test specification.**
  1. Lower Address Part (LAP) pattern trigger possible.
  2. Frequency error measurement in the preamble section.
  3. FM deviation measurement in the payload section.
  4. Frequency drift measurement in the payload section.
  5. Max drift rate measurement.
- **Frequency hopping signals measurement by the hopping catch function.**
- **Available options for R3267/3273.**
  - OPT.01 Digital modulation analysis hardware
  - OPT.61 cdmaOne (IS-95) analysis software
  - OPT.62 W-CDMA/3GPP analysis software
  - OPT.63 GSM/EDGE/DECT analysis software
  - OPT.64 PDC/PHS/IS-136 analysis software
  - OPT.65 cdma2000 analysis software
  - OPT.66 Bluetooth analysis software
  - OPT.73 AMPS/JTACS/NTACS analysis software
- Max 5 modulation analysis software options can be installed at a time.
- Each modulation analysis software option require digital modulation analysis hardware option (OPT.01).

\*: Bluetooth is a registered trademark of Ericsson Corporation.

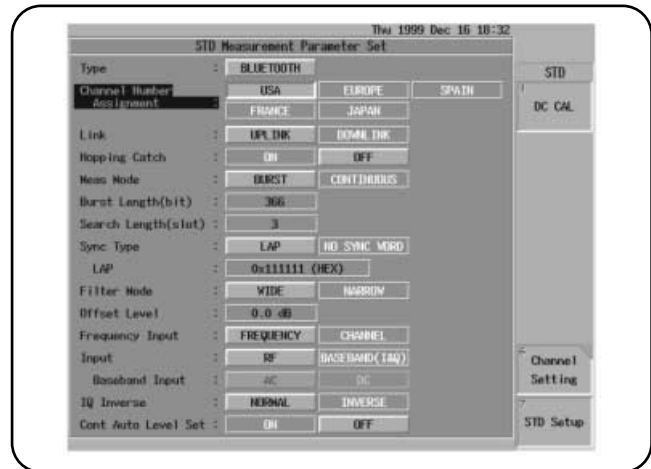
# Display Example

## Tx Tester Mode menu

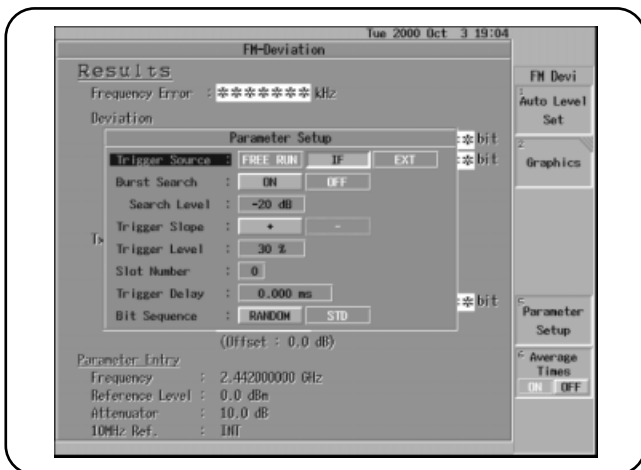


Simple operation with conversational key menu

## STD Parameter Setup

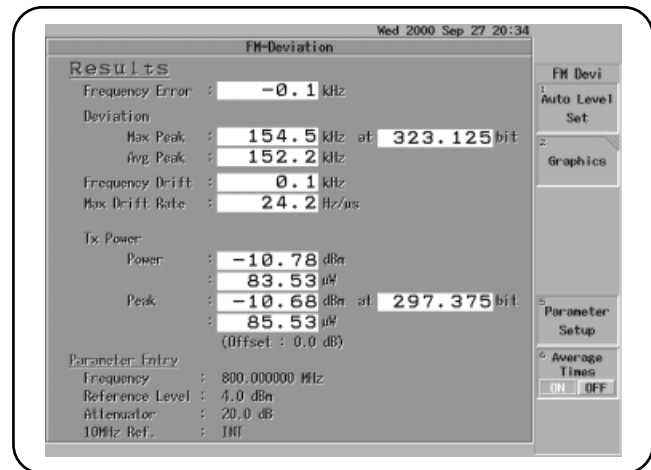


## FM Deviation Parameter Setup



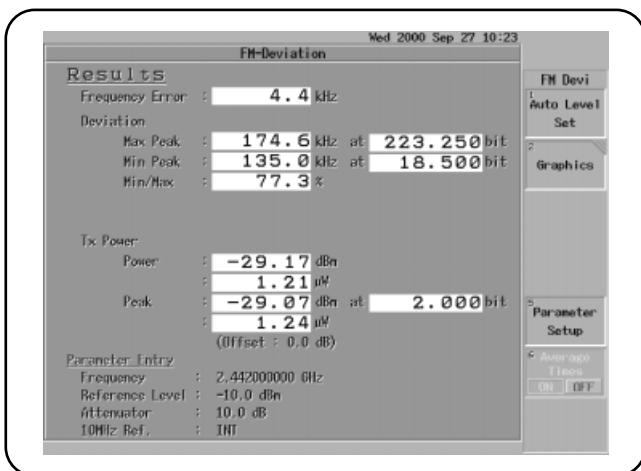
STD in Bit Sequence : Support standard parameter measurement.  
 RANDOM in Bit Sequence : Measurement by all sampled data.

## Bit Sequence: STD Measurement

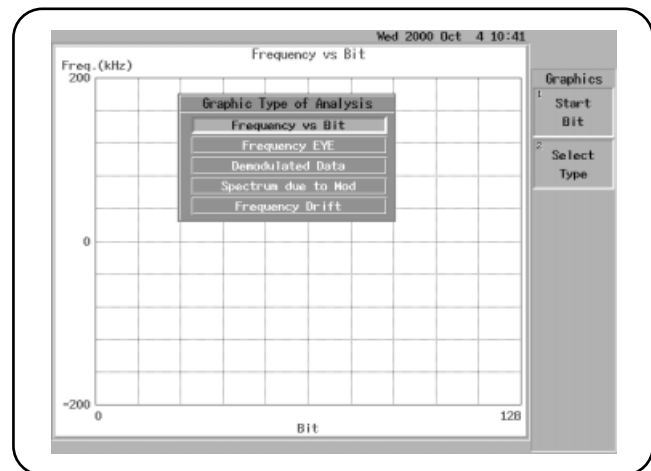


Frequency Error measurement in the preamble 4-bit.  
 Deviation / Frequency Drift / Max Drift Rate measurement in the payload.

## Bit Sequence: RANDOM Measurement

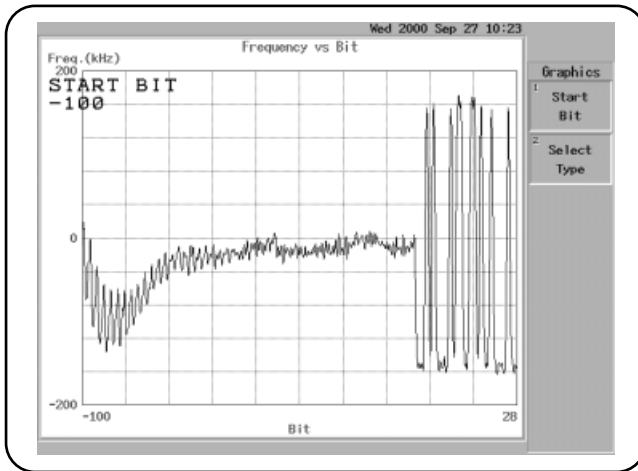


## Graphics Type Selection



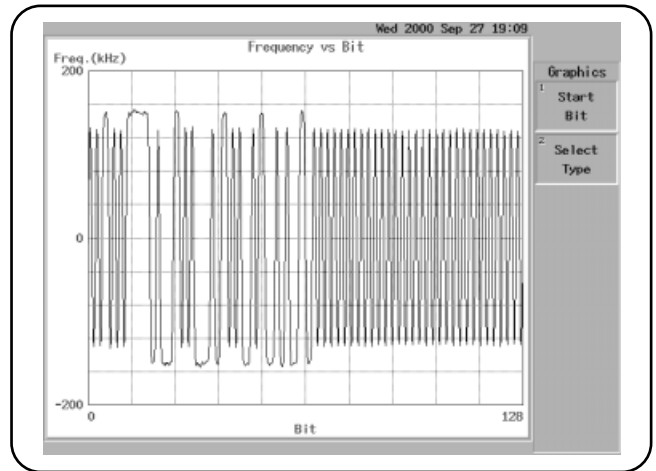
# Bluetooth Analysis Software Option (OPT.66)

## Frequency vs Bit

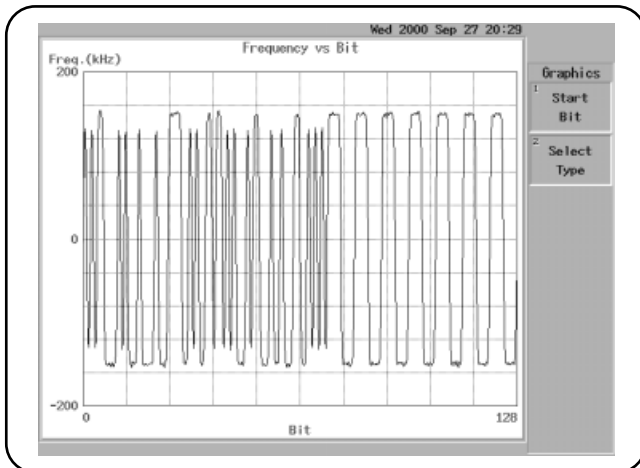


Both start -100 bit and tail +100 bit can be measured.

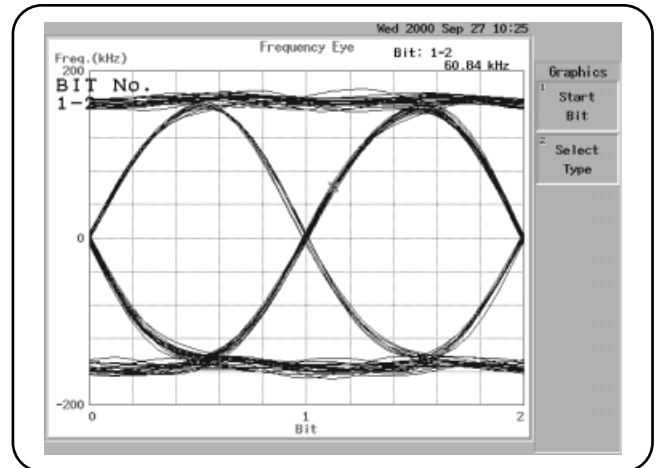
## Example of payload [0101] pattern measurement



## Example of payload [00001111] pattern measurement

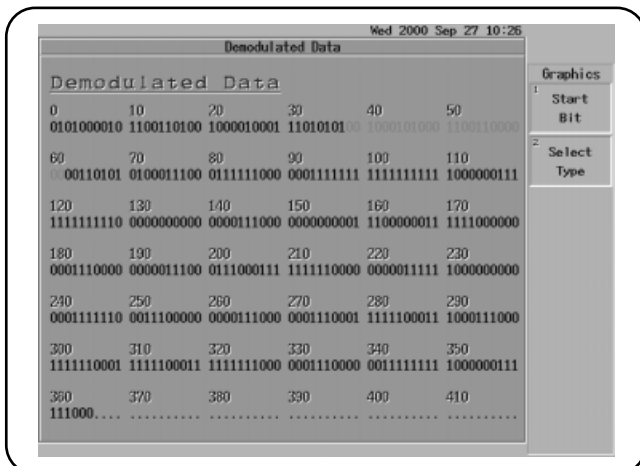


## Frequency Eye



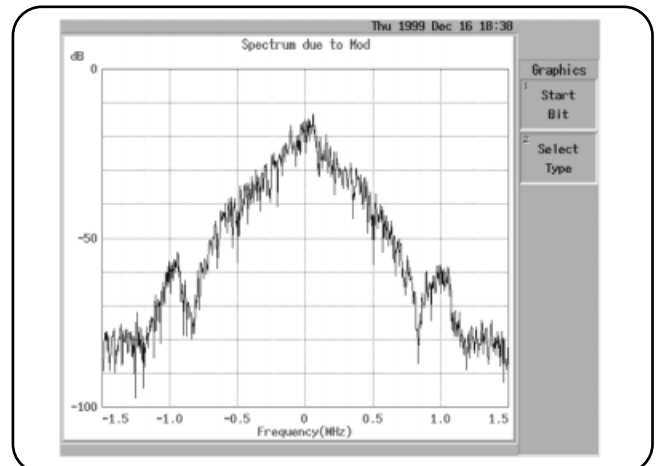
Eye opening / Zero crossing errors can be measured.

## Demodulated Data



Binary data (0/1) is obtained by frequency deviation.  
LAP location can be identified by red color.

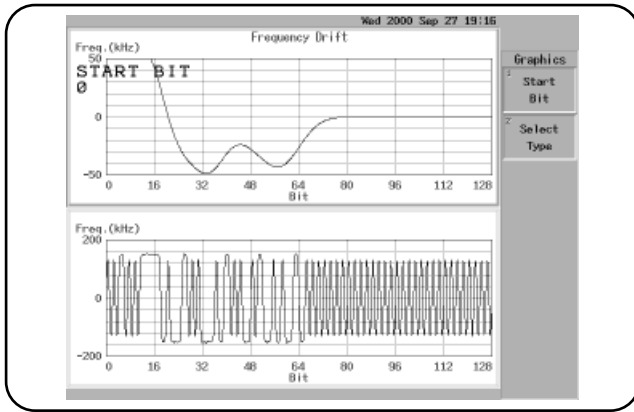
## Spectrum due to Modulation



Frequency hopping signal can be measured by FFT method.

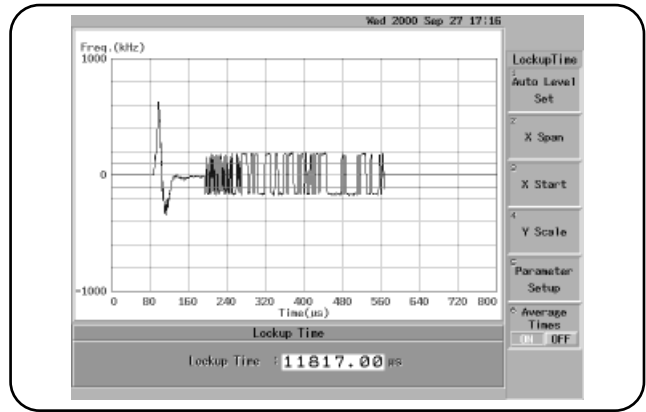
# Bluetooth Analysis Software Option (OPT.66)

## Frequency Drift Display



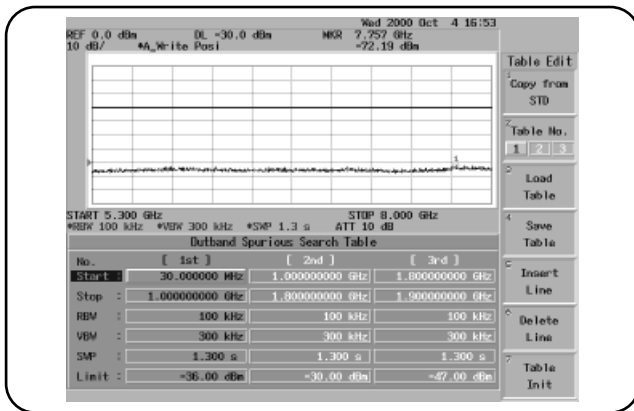
The drift status in the payload section can be displayed.

## Lookup Time Measurement



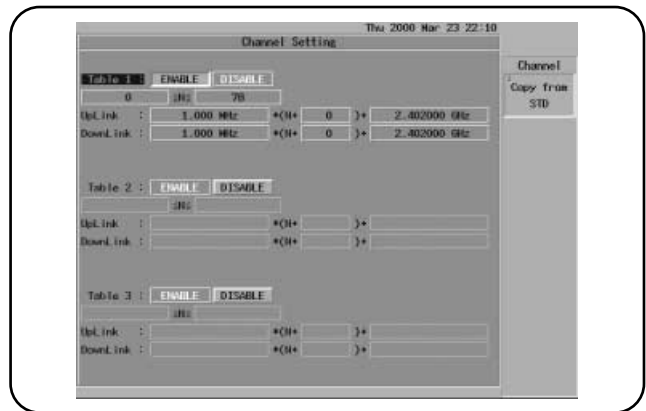
0.1 to 20 ms measurement length is available.

## Out of Band Spurious Measurement



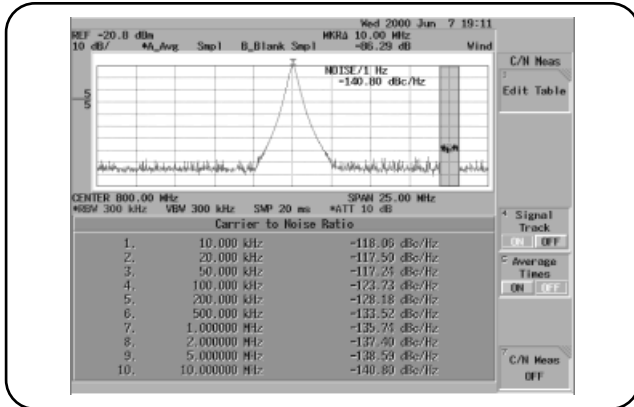
Standard values are initialized in the spurious search table.

## Channel Setting Screen



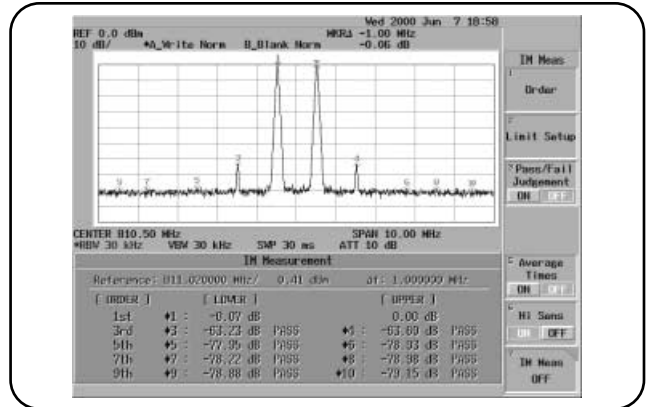
Channel tables for each countries are provided.

## Phase Noise Measurement



Max. 10 points of Phase Noise measurement possible.

## Inter-Modulation Measurement



Max. 9th order inter-modulation measurement possible.

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