Product Introduction

MX269016A

XG-PHS Measurement Software

MS2690A/MS2691A/MS2692A

Signal Analyzer

MS2690A/MS2691A/MS2692A Signal Analyzer

MX269016A
XG-PHS Measurement Software
Product Introduction

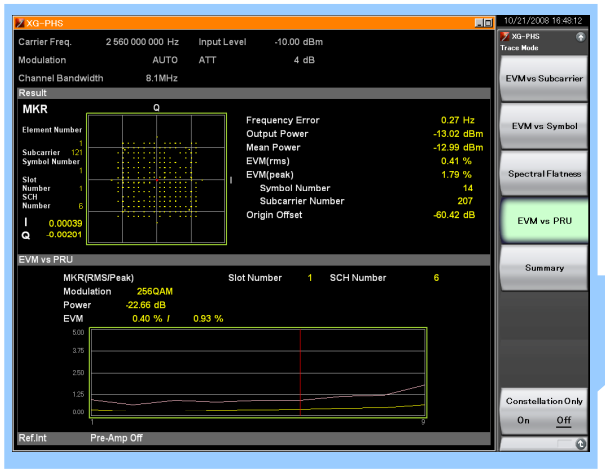
(Version 1.00)

Anritsu Corporation

What is XG-PHS Measurement Software?

The MX269016A XG-PHS Downlink Measurement Software is an option for measuring RF Tx characteristics of next-generation PHS (XGP: eXtended Global Platform) systems.
Installing it in the MS269xA Signal Analyzer series supports fast and accurate measurement with industry-leading RF performance. The MX269016A supports efficient development and early rollout of next-generation PHS device components, terminals, and base stations.

MX269016A
XG-PHS Measurement Software



Install

MS269xA
Signal Analyzer

Features

- Easy analysis of Tx characteristics of devices, terminals and base stations for next-generation PHS (XGP)
- Supports new next-generation PHS specifications (version 1.3)
- Supports measurements with low residual EVM (≤1.0%) and excellent level accuracy (±0.6 dB) for next-generation PHS

Measurement Functions 1/2

Modulation analysis and Tx power measurement, etc., required for developing devices, terminals, and base stations for next-generation PHS can be performed quickly with high accuracy.

Modulation Analysis

Text Display

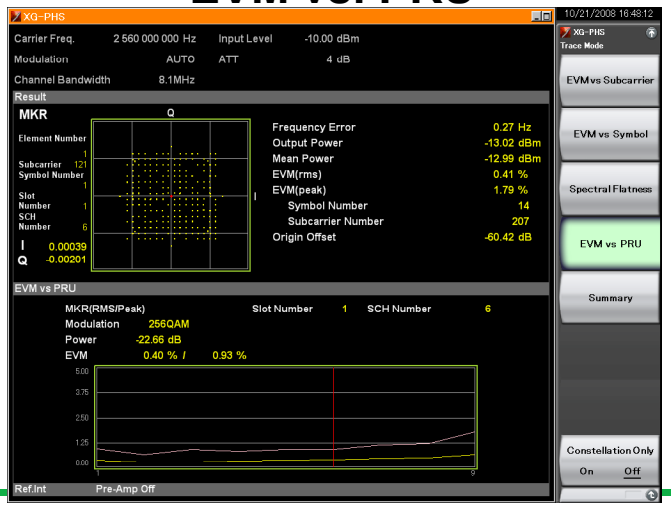
- Frequency Errors
- Tx Power
- EVM (rms, peak)
- Zero Offset
- Summary Display

Graph Display

- Constellation
- EVM vs. Subcarrier/Symbol/PRU
- Spectral Flatness

Summary Display

EVM vs. PRU



Measurement Functions 2/2

Power vs. Time

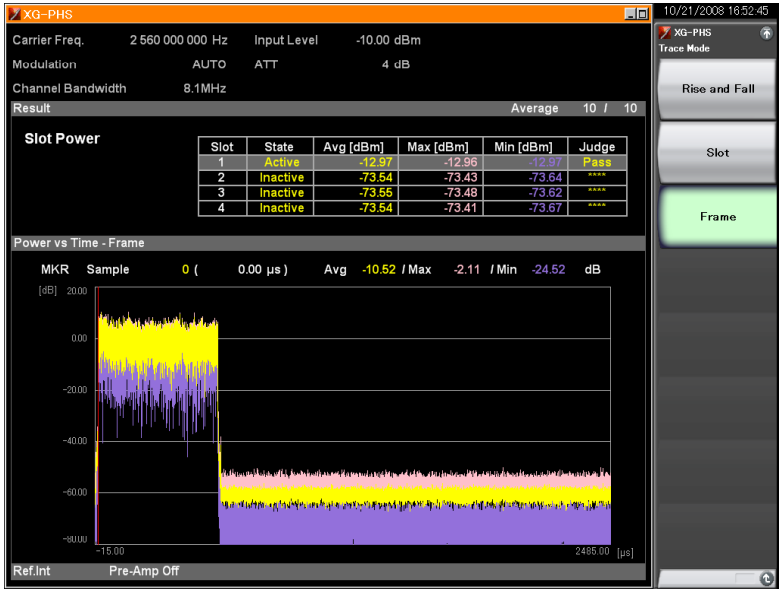
Text Display

- Slot Power
- Slot Status

Graph Display

- Frame Display
- Rising/Falling Display
- Slot Display

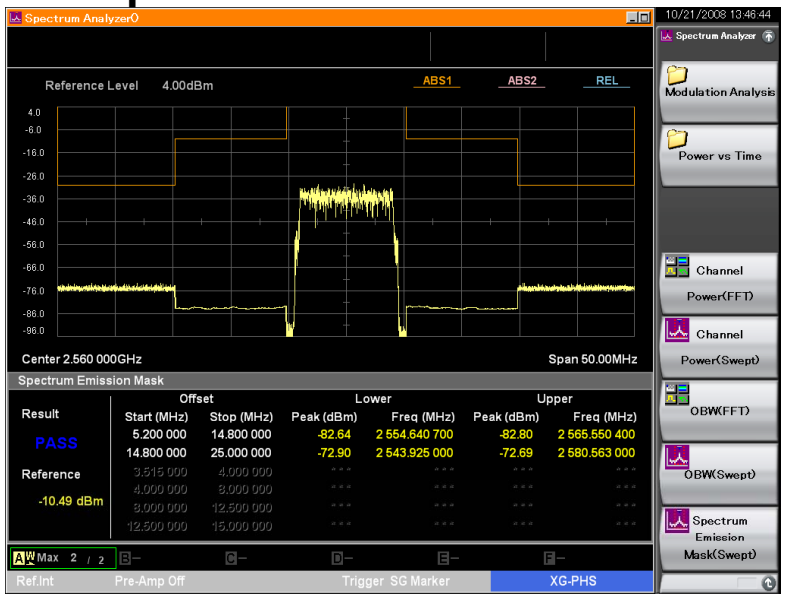
Power vs. Time (Frame Display)



Spectrum

- Channel Power
- Occupied Bandwidth
- Spectrum Emission Mask

Spectrum Emission Mask



Modulation Analysis — Average & Max Display

Average and peak values of frequency errors, Tx power, EVM, etc., are displayed on the Average & Max display to evaluate changes in DUT characteristics.

Modulation Analysis Display

Text Display

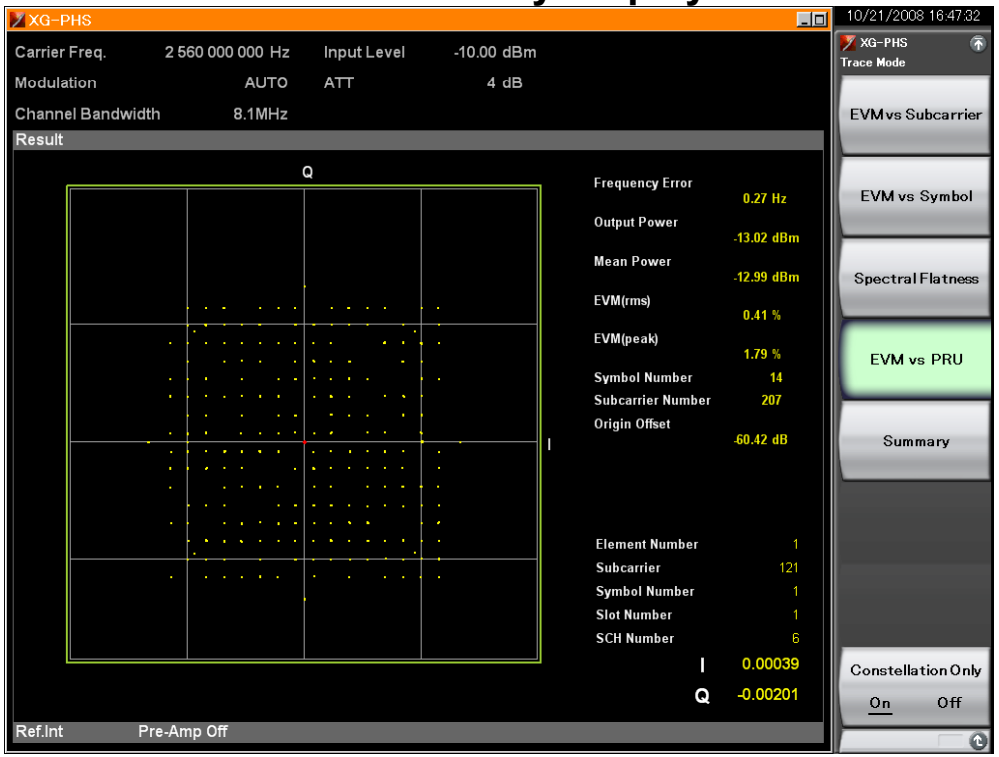
- Frequency Error
- Tx Power
- EVM (rms, peak)
- Zero Offset

Modulation Analysis — Constellation Display

Modulation (BPSK, QPSK, 16QAM, 64QAM, 256QAM) is displayed as a constellation to easily check the characteristics of multi-modulations such as 256QAM using the zoom function.

Modulation Analysis Screen

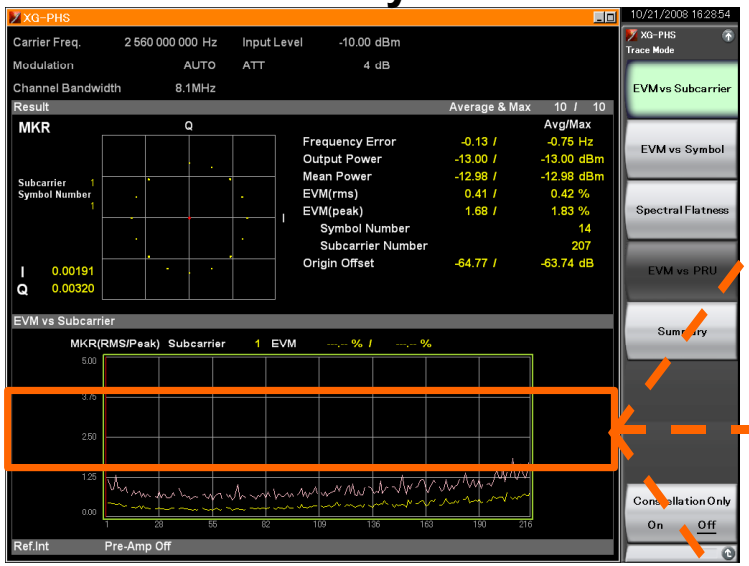
Constellation Only Display



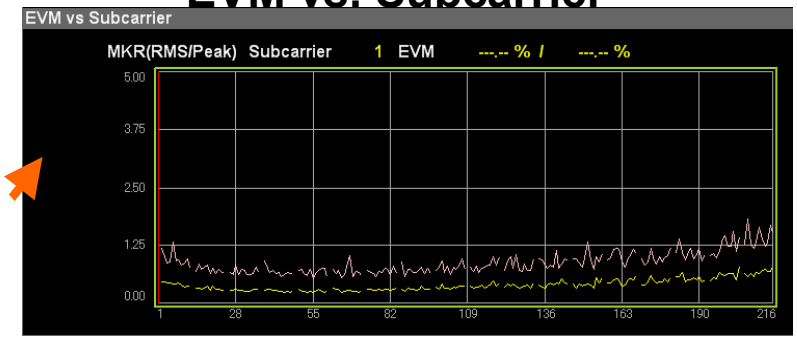
Modulation Analysis — Graph Display

The change in EVM of each subcarrier, symbol and PRU (Physical Resource Unit) is checked on a graph display. Subcarrier, symbol and PRU-dependent signal degradation can be checked immediately.

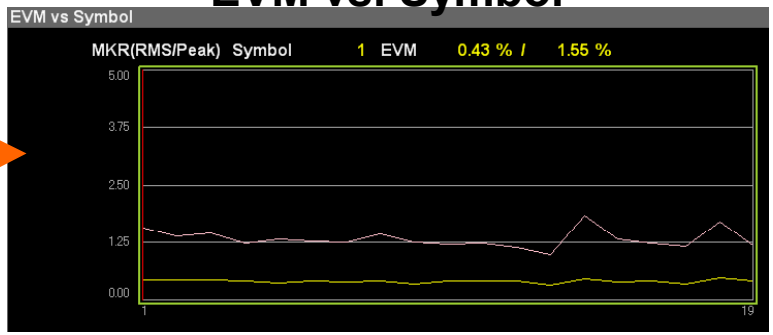
Modulation Analysis Screen



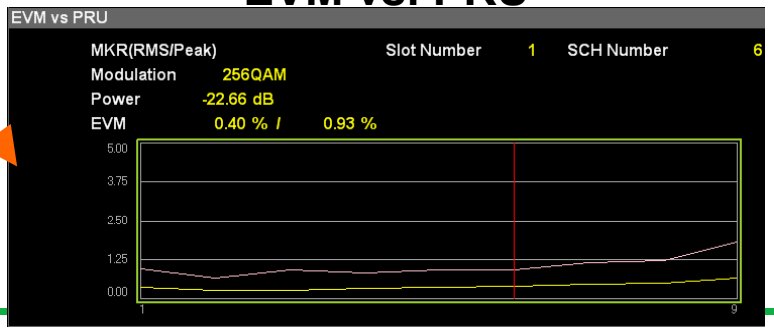
EVM vs. Subcarrier



EVM vs. Symbol



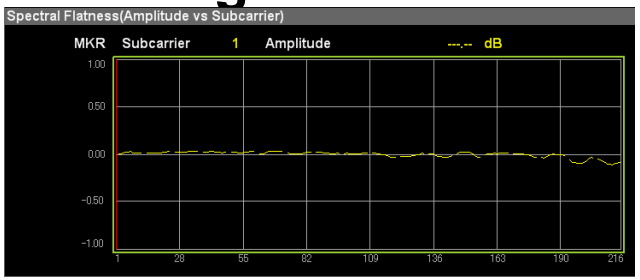
EVM vs. PRU



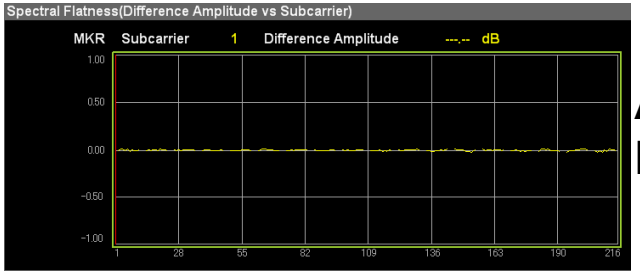
Modulation Analysis — Spectral Flatness

Four spectral flatness measurements—Amplitude, Amplitude Difference, Phase, and Group Delay—are displayed to easily detect unique OFDM faults, such as symbol timing errors between subcarriers.

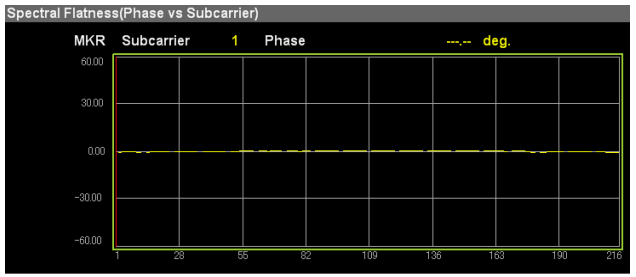
Modulation Analysis Screen



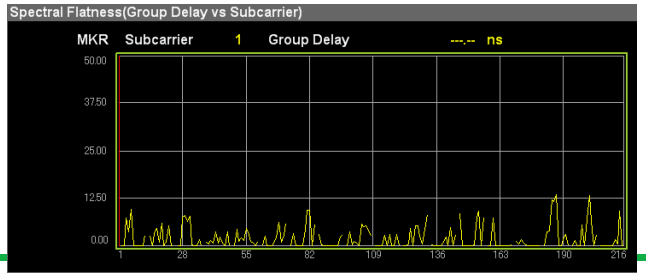
Amplitude



Amplitude Difference



Phase

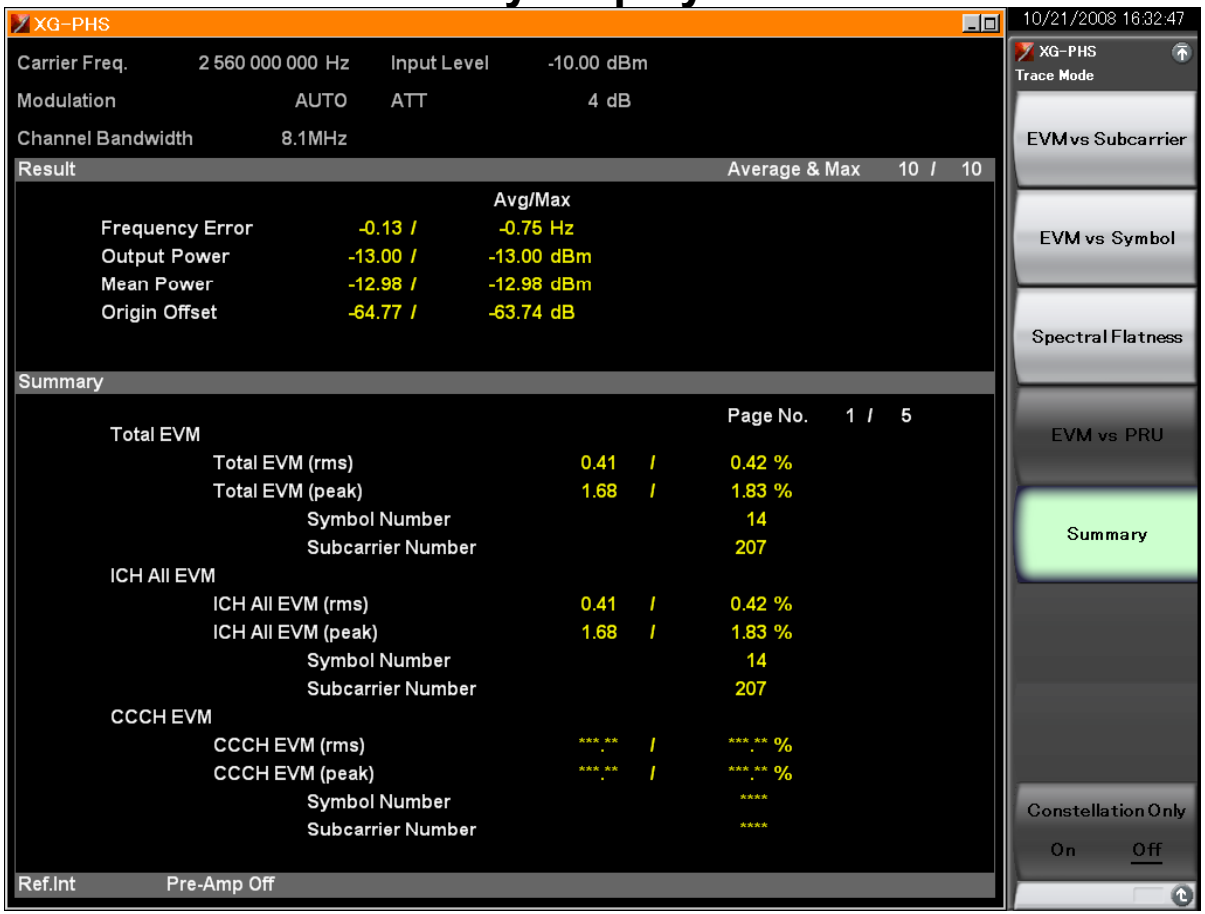


Group Delay

Modulation Analysis — Summary Display

The Total EVM and EVM for each channel and modulation system are displayed to check EVM characteristics quickly.

Summary Display



Summary Display

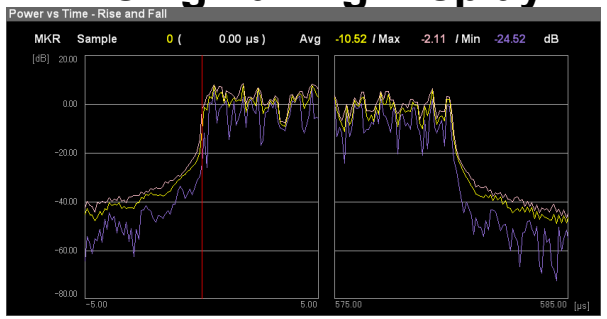
- Total EVM (rms, peak)
- ICH All EVM (rms, peak
- CCCH EVM (rms, peak)
- Training EVM (rms, peak)
- Pilot EVM (rms, peak)
- Signal EVM (rms, peak)
- Data All EVM (rms, peak)
- Data BPSK EVM (rms, peak)
- Data QPSK EVM (rms, peak)
- Data 16QAM EVM (rms, peak)
- Data 64QAM EVM (rms, peak)
- Data 256QAM EVM (rms, peak)
- IQ Imbalance
- Quadrature Error

Power vs. Time

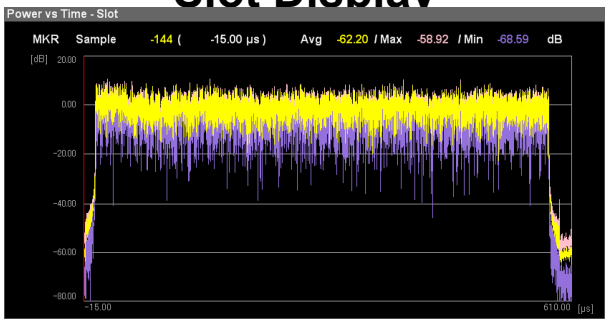
The change in power over time can be observed using four Rising/Falling, Slot, and Frame displays to perform pass/fail evaluation. Burst characteristics are easily monitored by simultaneous average, and max/min power displays.

Power vs. Time Screen

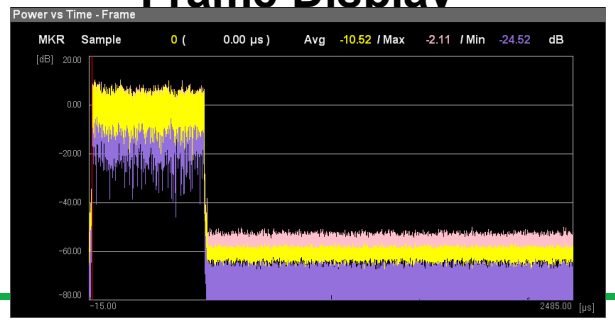
Rising/Falling Display



Slot Display



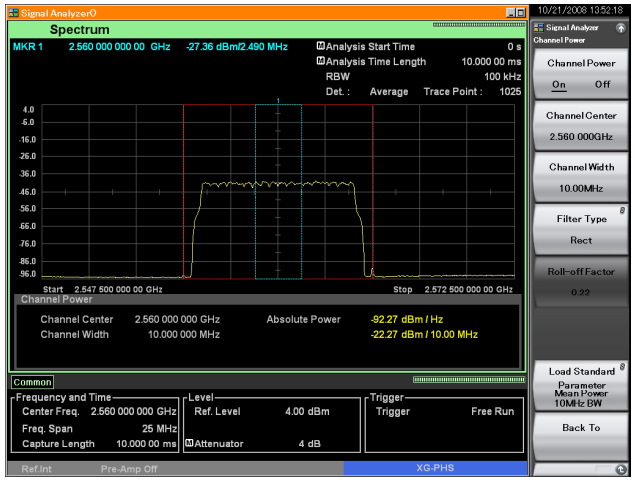
Frame Display



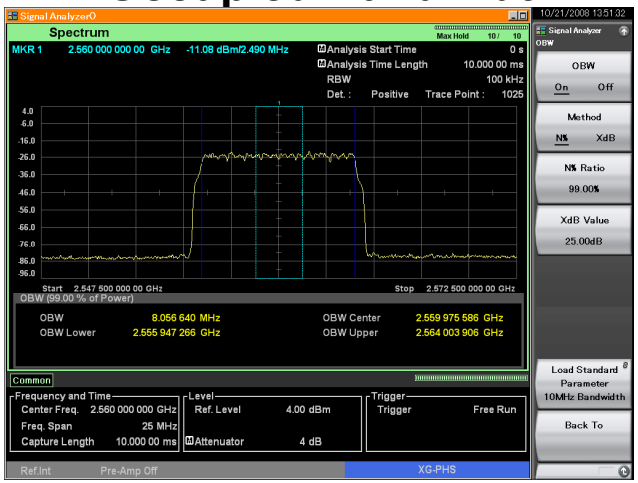
Spectrum Measurement

One-touch spectrum measurements (Channel Power, Occupied Bandwidth, and Spectrum Emission Mask) of next-generation PHS signals make full use of the excellent level accuracy and wide dynamic range of the MS269xA series.

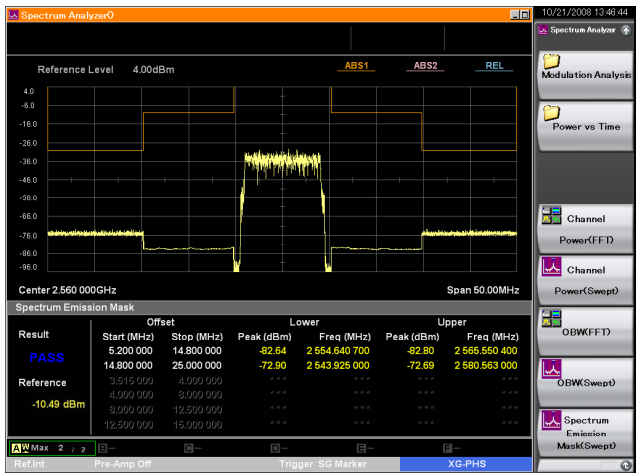
Channel Power



Occupied Bandwidth



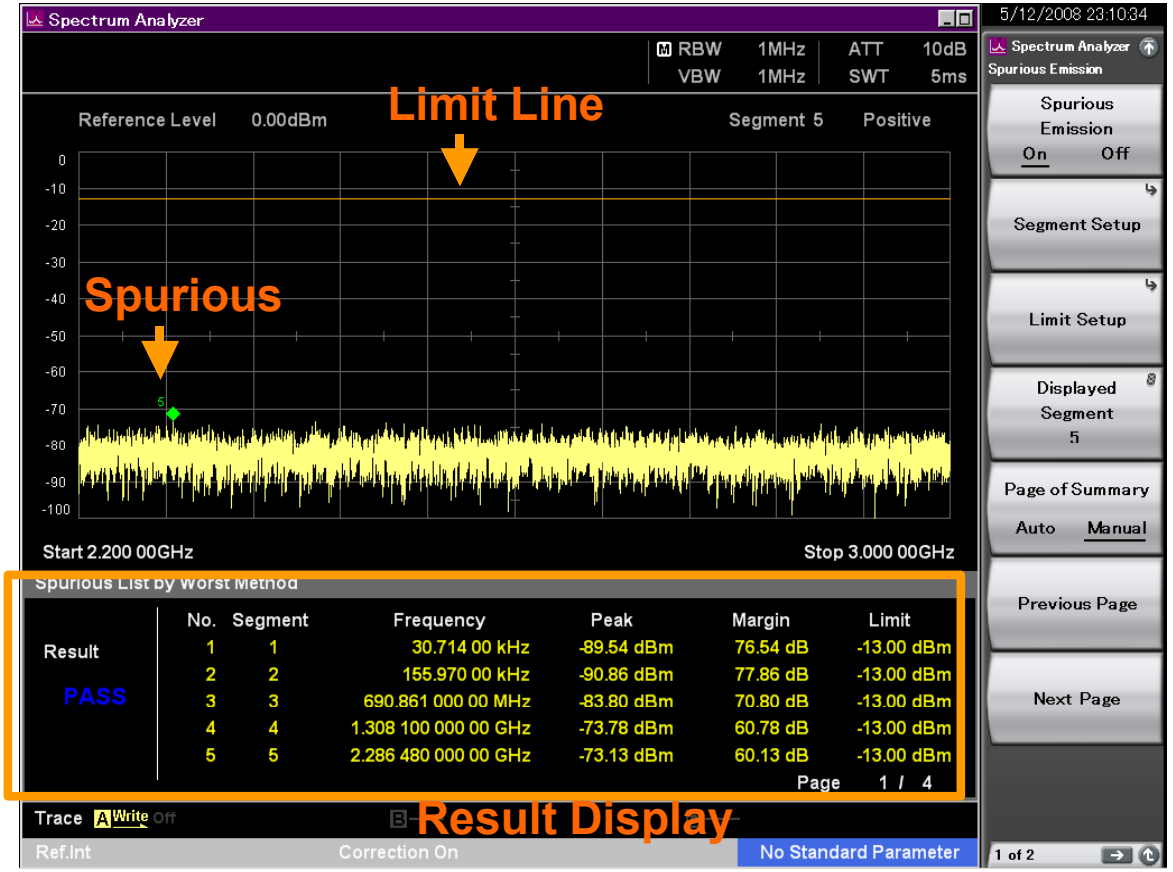
SEM



MS269xA — Spurious Emission Measurement

Peak frequency, level, and margin are displayed with parts exceeding the limit line indicated in red. Limit lines and measurement systems can be set for 20 segments max.

Spurious Emission Measurement



Note

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Specifications are subject to change without notice.

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