

Powerful Signal Analyzer Functions

MS2830A Spectrum Analyzer/Signal Analyzer

Frequency Range
 9 kHz to 3.6 GHz (Opt-040)
 9 kHz to 6.0 GHz (Opt-041)
 9 kHz to 13.5 GHz (Opt-043)

Analysis Bandwidth
 10 MHz (Opt-006)
 31.25 MHz (Opt-005 & 006)



Multi-function

Signal analyzer function captures all transients
 Capture and replay function for efficient work

High Expandability

Modulation analysis supporting more than 10 systems

Multi-function — Capture Signals with Signal Analyzer Function Capture and Check Even the Shortest Transients

General-purpose, sweep-type spectrum analyzers display one spectrum linking the level (points) at different times, so they cannot accurately capture signals with instantaneous changes.

However, transient changes are not missed using a signal analyzer because it is possible to capture the entire RF signal (setting bandwidth x analysis time). In addition, captured data can be analyzed using six traces so instantaneous changes can be found easily. Furthermore, frequency modulation signals, hopping and chirping are easily measured using the built-in Frequency vs. Time, Phase vs. Time, CCDF/APD, and Spectrogram traces not offered by spectrum analyzers.

Six Traces for Analyzing Captured Signals

Spectrum	Power vs. Time	Frequency vs. Time
Confirm spectrum with horizontal-axis frequency and vertical-axis level.	Confirm level change with horizontal-axis time and vertical-axis level. Ideal for burst signal avg. power.	Measure FSK and GMSK modulation wave frequency variation, and VCO frequency switching time with horizontal-axis time and vertical-axis frequency.
Phase vs. Time	CCDF/APD	Spectrogram
Confirm phase change with horizontal-axis time and vertical-axis phase. Ideal for time variation of the measured signal phase.	Support wideband CCDF analysis up to 31.25 MHz; useful for evaluating power amps in wideband communications systems.	Intuitive recognition of changes with horizontal-axis time and vertical-axis frequency and color level. Useful for monitoring hopping and chirp.

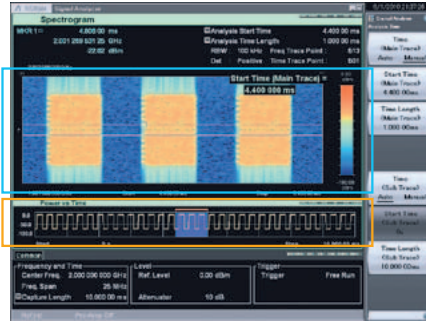
Multi-function — Zoom Selected Area with Dual Display

Main trace

- Spectrum
- Power vs. Time
- Frequency vs. Time
- Phase vs. Time
- CCDF/APD
- Spectrogram

Sub-trace

- Power vs. Time
- Spectrogram

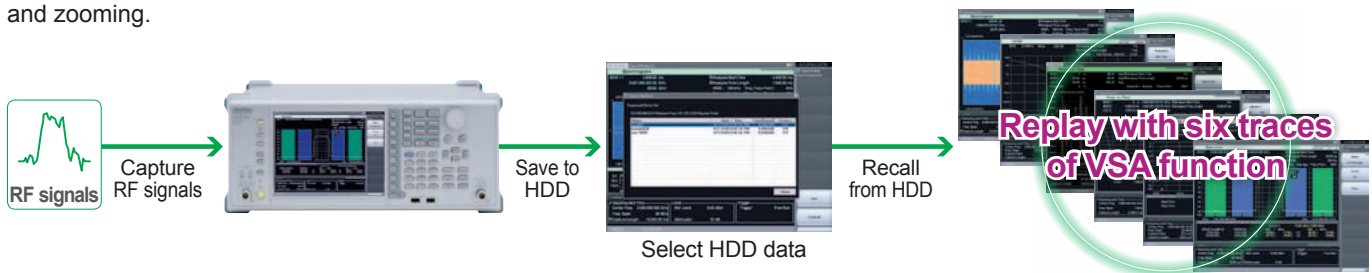


The main trace zoom-displays the selected (blue) part of the sub-trace. Transients in captured long-term data can be selected at the sub-trace for zoom display on the main trace to see the fine details.

Six screens can be selected for the main trace and two for the sub-trace.

Multi-function — Capture and Replay Function → Improve Work Efficiency

Captured data can be saved to internal/external hard disk. Saved data can be confirmed using the VSA function with six traces and zooming.



Example

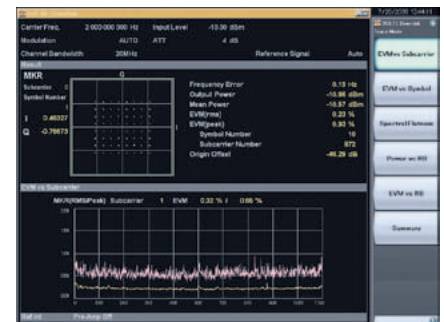
- Separate R&D department and manufacturing plants → Send capture data to replay and investigate
- Confirm performance improvement at product design → Read data before and after modifications and re-measure for comparison
- Post-shipment problems → Data saved at shipment can be read and re-verified [prove shipping-inspection data validity]

High Expandability — Measurement Software Supporting Modulation Analysis

The measurement software supports modulation analysis for various communication systems, such as constellation, EVM, EVM vs. Sub-carrier. Installation in the main frame supports easy modulation analysis.

Measurement Software Lineup

LTE (FDD/TDD), Mobile WiMAX, W-CDMA/HSPA/HSPA Evolution, TD-SCDMA, CDMA2000, 1xEV-DO, GSM/EDGE/EDGE Evolution, WLAN, Worldwide digital radio standards



Example: LTE FDD Downlink

Ordering Information (summary)

Please specify the model/order number, name and quantity when ordering.

The names listed in the chart below are Order Names. The actual name of the item may differ from the Order Name.

	Model	Name
Main Frame	MS2830A	Signal Analyzer
Option	MS2830A-040	3.6 GHz Signal Analyzer (9 kHz to 3.6 GHz)
	MS2830A-041	6 GHz Signal Analyzer (9 kHz to 6 GHz)
	MS2830A-043	13.5 GHz Signal Analyzer (9 kHz to 13.5 GHz)
	MS2830A-005	Analysis Bandwidth Expansion to 31.25 MHz (requires Opt-006)
	MS2830A-006	Analysis Bandwidth 10 MHz