

Enhanced Functions for GSM/DCS1800/1900 Tx Measurements

<Applicable Measurement Items>

- Output Power
- Spectrum due to the Modulation
(sweep method)
- Spectrum due to Switching
(sweep method)
- Spurious Emissions (to 3GHz)
- Output Level Dynamic Operation



Spectrum Analyzer U3641

■ Overview

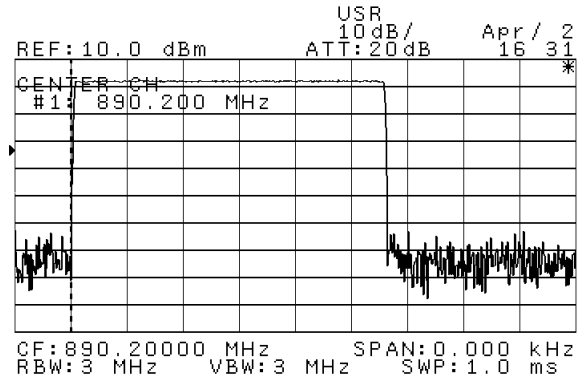
Measurement of GSM/DCS1800/DCS1900 transmission characteristics requires TDMA signal analysis. The Spectrum Analyzer U3641 supports all the functions required for TDMA signal measurement as standard; high-speed time domain sweep, Burst-ON power measurement, and gated sweep functions. A lightweight (7kg) compact unit, available with battery operation, the U3641 is an ideal choice for GSM/DCS1800/DCS1900 field maintenance.

■ Enhanced Measurement Functions

- Convenient channel input (option)
- High-speed time domain sweep
- AVG power measurement
- Gated sweep
- Frequency template
- Time template
- Pass/Fail determination
- Multi-marker
- Multi-marker list

Channel Input Function for Creating Channel Tables (Option)

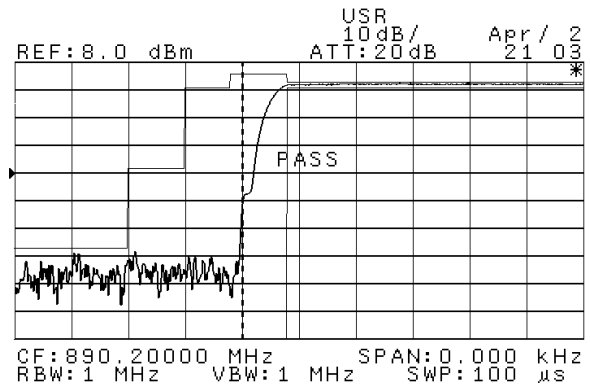
- Channel table provided for up to 99-channel inputs
- Center frequency settable by channel number
- Two user tables for GSM and DCS channels are available
- PCMCIA card for covering various types of communication system channels



Example Center Frequency Channel Input

High-speed Time Domain Sweep Sufficient for GSM/DCS1800/DCS1900 Analysis

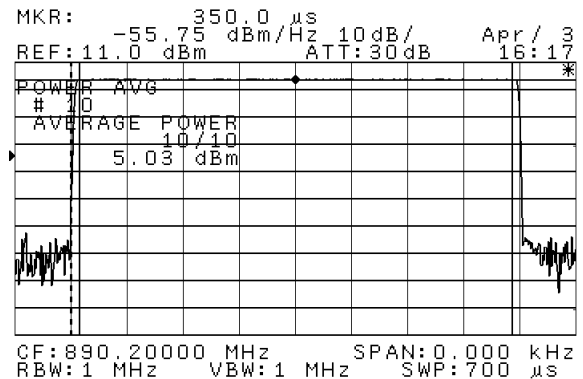
- Max. 50 μ s high-speed sweep
- Delayed sweep function for expanding at an arbitrary position
- Time template for upper and lower limit setting
- Template creation of relative values (dBc) and absolute values (dBm) linked with the power measurement
- Pass/Fail determination by template



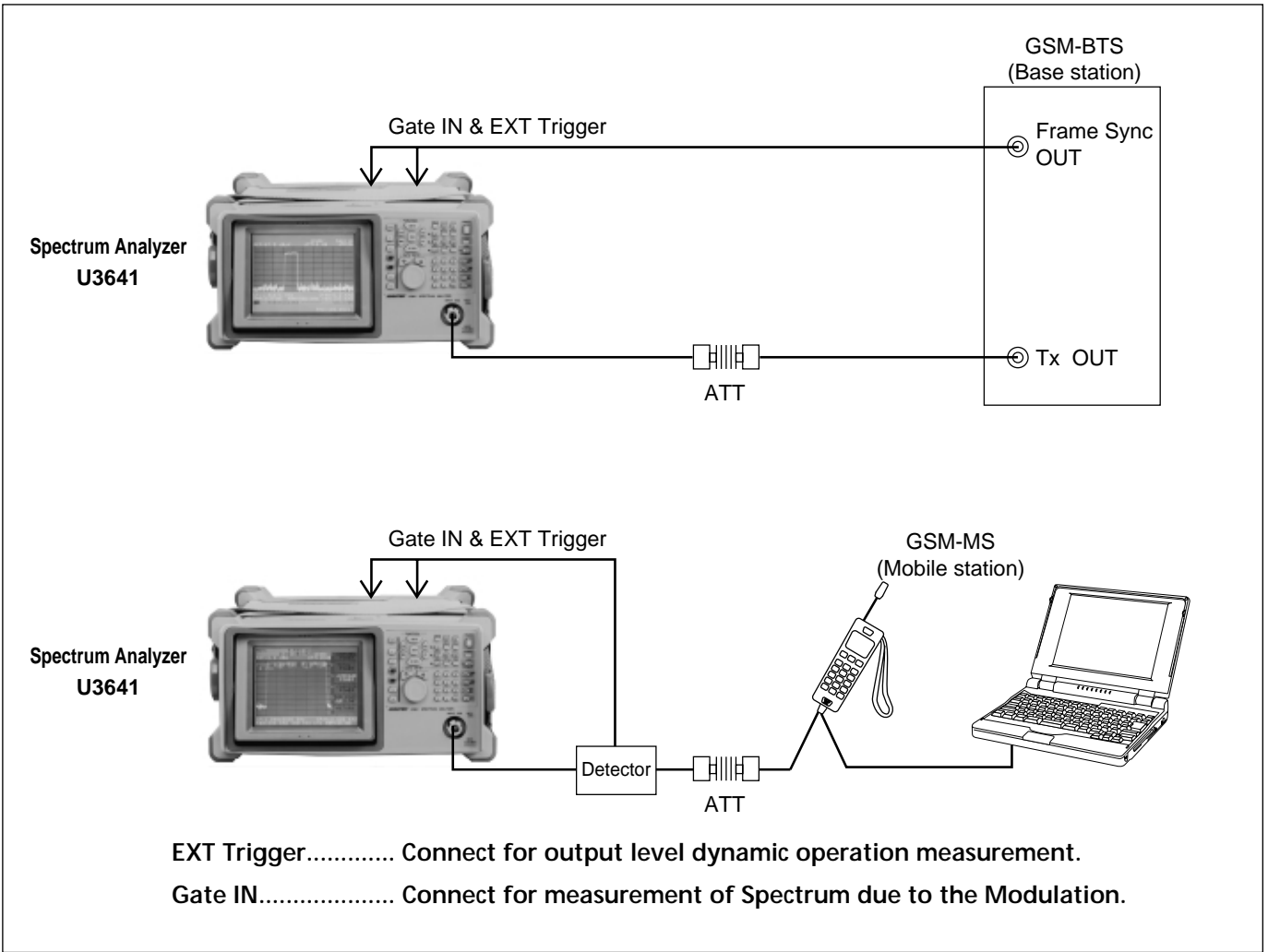
Example GSM Ramp-up Measurement

AVG Power Measurement only for Burst-ON Section

- Various power measurement functions
 - . Channel Power
 - . Total Power
 - . AVG Power
 - . Carrier Power
- Window function settable the measurement range in arbitrary.
- AVG power measurement in Burst ON sections

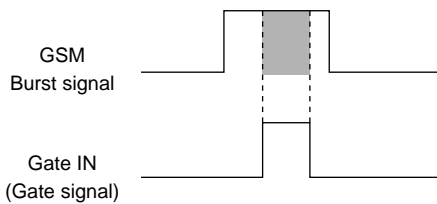


Example GSM Power Measurement

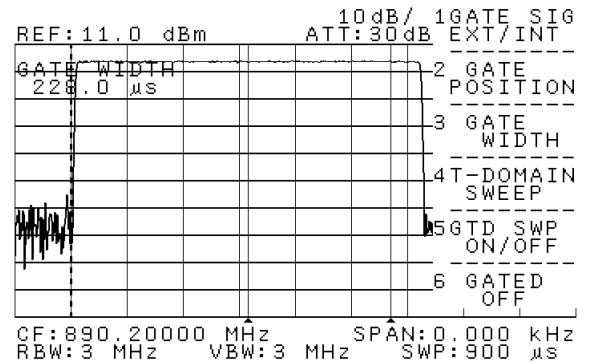


Gated Sweep Effective for Measurement of Spectrum Due to the Modulation

Gated Sweep 1 (EXT mode)

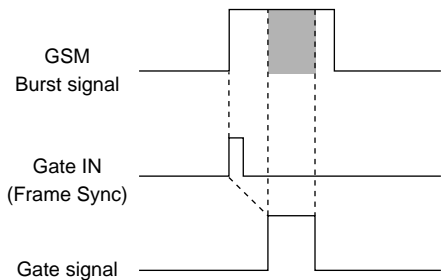


● Input of the gate signal synchronized with the burst signal enables spectrum analysis in the burst ON sections.

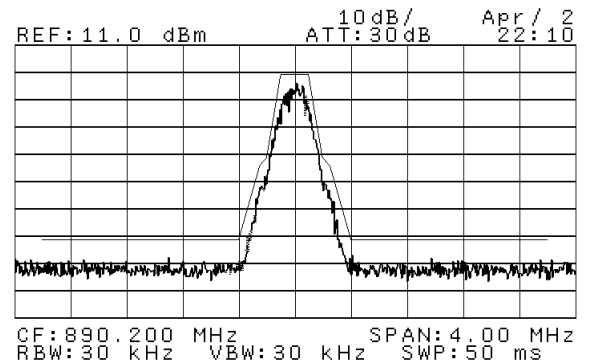


Example Gate Window Setting

Gated Sweep 2 (INT mode)



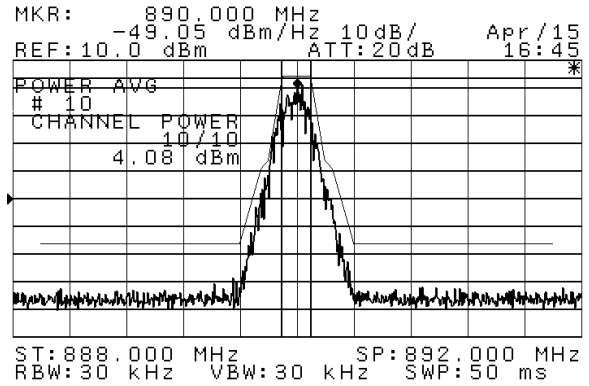
● In this mode, Gate position and Gate width can be changed arbitrary on U3641. It is meant for the arbitrary Gate signal can be created on burst ON section. It allows 50% to 90% of Burst ON section specified in the measurement of Spectrum due to the Modulation.



Example Measurement of GSM due to the Modulation

Relative Value (dBc) Template Function Linked with Power Measurement

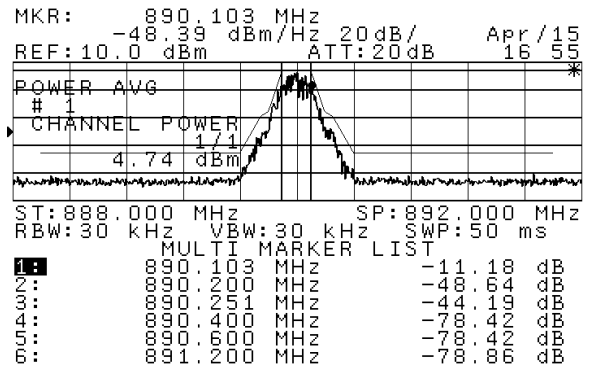
- Selection of the frequency or time template (either should be selected for the U3641.)
- Max. 51-point inputs
- Applicable to several modulation templates by using PCMCIA card.
- Template creation for relative values (dBc) and absolute values (dBm) linked with the power measurement



Example Template Measurement Linked with Power Measurement

Multi-Marker (List) Function Effective for Spurious Emission Measurement

- Max. 6-point settings
- Multi-marker list function for list display at the same time of waveform display
- Indication whichever relative values (dBc) and absolute values (dBm)



Example Marker List Display

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