Product Introduction

3GPP LTE FDD Solution

MS2690A/MS2691A/MS2692A/MS2830A
Signal Analyzer

MX269020A LTE Downlink Measurement Software
MX269021A LTE Uplink Measurement Software
MX269908A LTE IQproducer

MS2690A/MS2691A/MS2692A Signal Analyzer
MS2830A Signal Analyzer

3GPP LTE FDD Solution

MX269020A LTE Downlink Measurement Software
MX269020A-001 LTE-Advanced FDD Downlink Measurement Software
MX269021A LTE Uplink Measurement Software
MX269908A LTE IQproducer
MX269908A-001 LTE-Advanced FDD Option



MS269xA



MS2830A

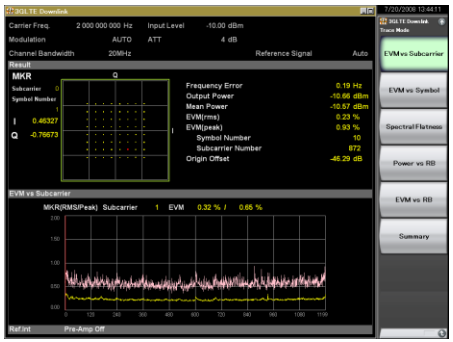
Version 8.00

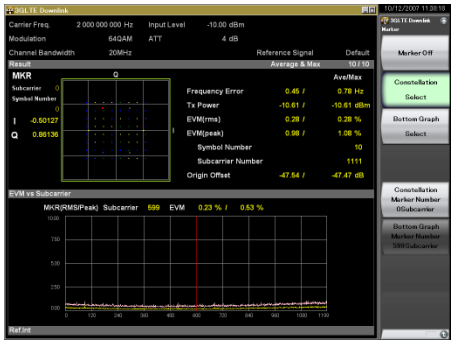
Anritsu Corporation

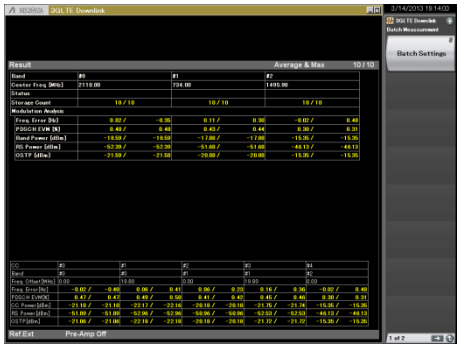
LTE FDD Measurement Solution

3GPP LTE Transmitter Measurement

MX269020A LTE Downlink Measurement Software
MX269020A-001 LTE-Advanced FDD Downlink Measurement Software
MX269021A LTE Uplink Measurement Software







The MX269020A/21A support measurement of RF Tx characteristics of 3GPP LTE (Long Term Evolution) downlink (FDD) and uplink (FDD) signals.

The MX269020A-001 is an option for the MX269020A to measure the RF Tx characteristics of LTE-Advanced downlink (FDD) signals. (Requires MX269020A)

MS269xA/MS2830A Signal Analyzer series supports various transmission evaluations, including modulation analysis.

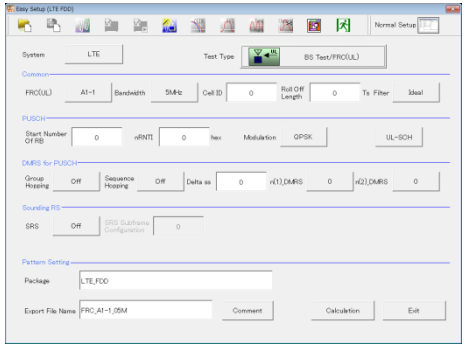
LTE FDD Measurement Solution

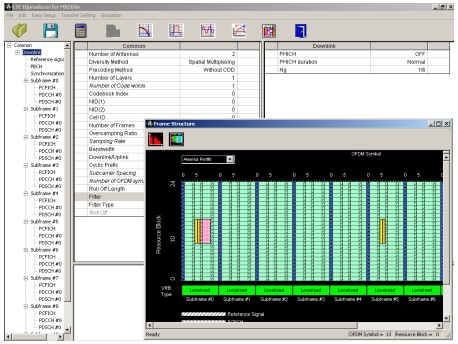
3GPP LTE Receiver Measurement

MS269xA/MS2830A for Vector Signal Generator Option

MX269908A LTE IQproducer™

MX269908A-001 LTE-Advanced FDD Option





The MX269908A LTE IQproducer is PC application software with a GUI for generating waveform patterns in compliance with the LTE FDD specifications in the 3GPP TS 36.211, TS 36.212, and TS 36.213 standards.
The generated waveform patterns can be output from the Vector Signal Generator option for MS269xA/MS2830A.

Installing the MX269908A-001 LTE-Advanced FDD option supports output of signals in compliance with the LTE-Advanced FDD standards. (Requires MX269020A)

MX269020A
Downlink

LTE Downlink Measurement Software

MX269021A
Uplink

LTE Uplink Measurement Software

Measurement Functions (1/3)

● Text Display

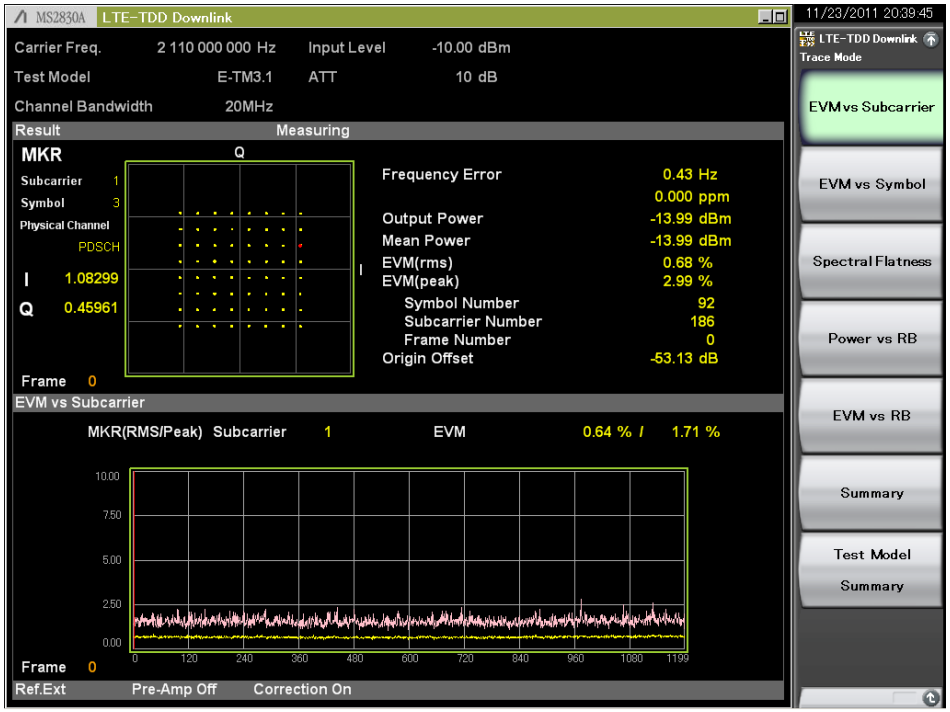
-Frequency Error
-Output Power
-EVM (Peak/rms)
-Origin Offset
-Timing Offset (External Trigger)

● Constellation Display

-Constellation

● Graphical Display

-EVM vs Subcarrier
-EVM vs Symbol
-Spectral Flatness
-Power vs Resource Block **Downlink**
-EVM vs Resource Block **Downlink**
-RE Map **Downlink**



-Time Based EVM **Uplink**
-EVM vs Demod-Symbol **Uplink**
-In-Band Emission **Uplink**

Measurement Functions (2/3)

● Summary Display

When the Trace Mode is set to Summary, this displays the numeric results on the multiple pages at the bottom of the screen.

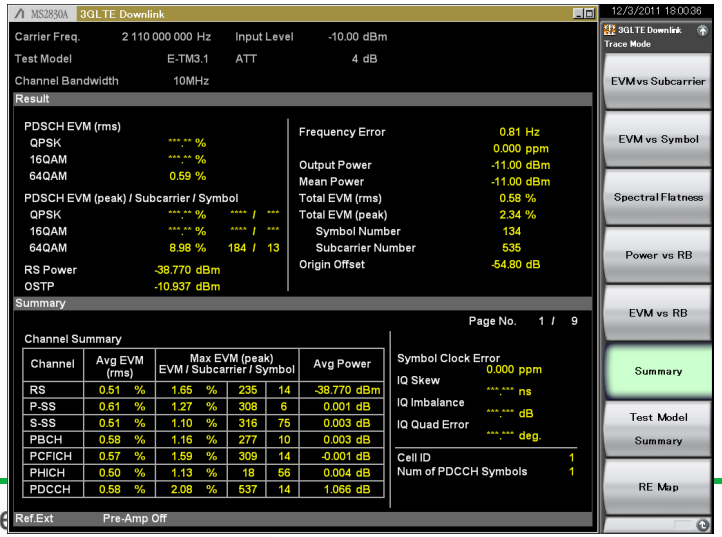
● Test Model Summary Display Downlink

When the Trace Mode is set to Test Model Summary, this displays the numeric results on the multiple pages at the bottom of the screen. The pages are switched using Page Number.

● MIMO Display Downlink

At MIMO Summary measurements for Tx Diversity and MIMO signals, the mixed signal from multiple antennas is input and the time difference between each antenna is measured.

Summary



Test Model Summary

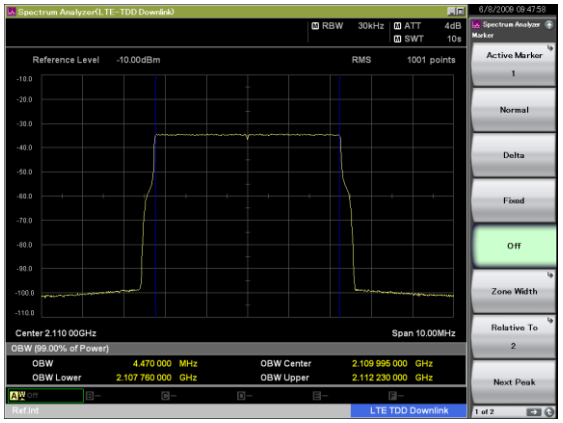


Measurement Functions (3/3)

Channel Power*1



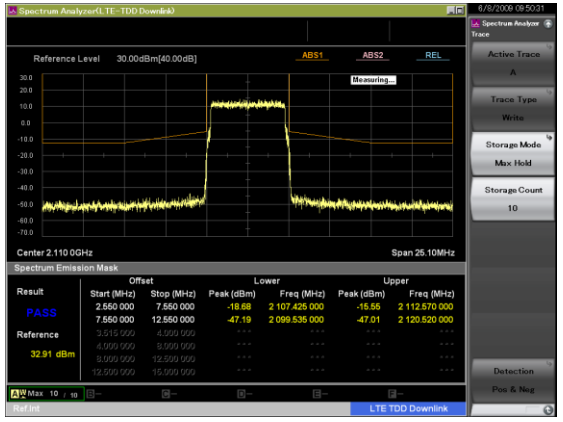
Occupied Bandwidth



Adjacent Channel Leakage Power*2



Spectrum Emission Mask*3



Kind of Template :

- **Channel Power**
  - UL/DL
    - Mean Power / Filtered Power
    - 1.4 / 3 / 5 / 10 / 15 / 20MHz BW
- **OBW**
  - UL/DL
    - 1.4 / 3 / 5 / 10 / 15 / 20MHz BW
- **ACLR**
  - UL/DL
    - UTRA / E-UTRA
    - 1.4 / 3 / 5 / 10 / 15 / 20MHz BW
- **SEM**
  - DL
    - Category A / Category B
    - < 1GHz / > 1GHz
    - 1.4 / 3 / 5 / 10 / 15 / 20MHz BW
  - UL
    - General, JAPAN, NS-03, NS-04, NS-06/07

*1: Requires Channel Power template for Mean Power or Filtered Power selecting

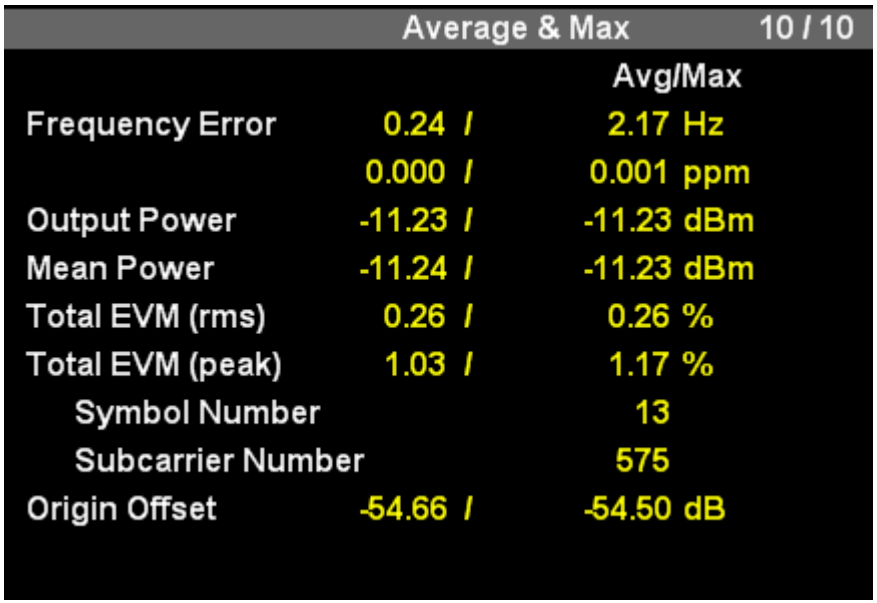
*2: Requires ACLR template for E-UTRA or UTRA selecting

*3: Requires SEM template for initial parameter setting

Measurement Functions/ Text Display (Frequency Error, Tx Power, EVM)

Displays (text) all active subcarrier Frequency Error, Output Power, EVM (rms, peak) values in user-specified subframes (10 max.). Choosing Average & Max displays average and maximum values on same screen. This is useful for evaluating DUT dispersion.

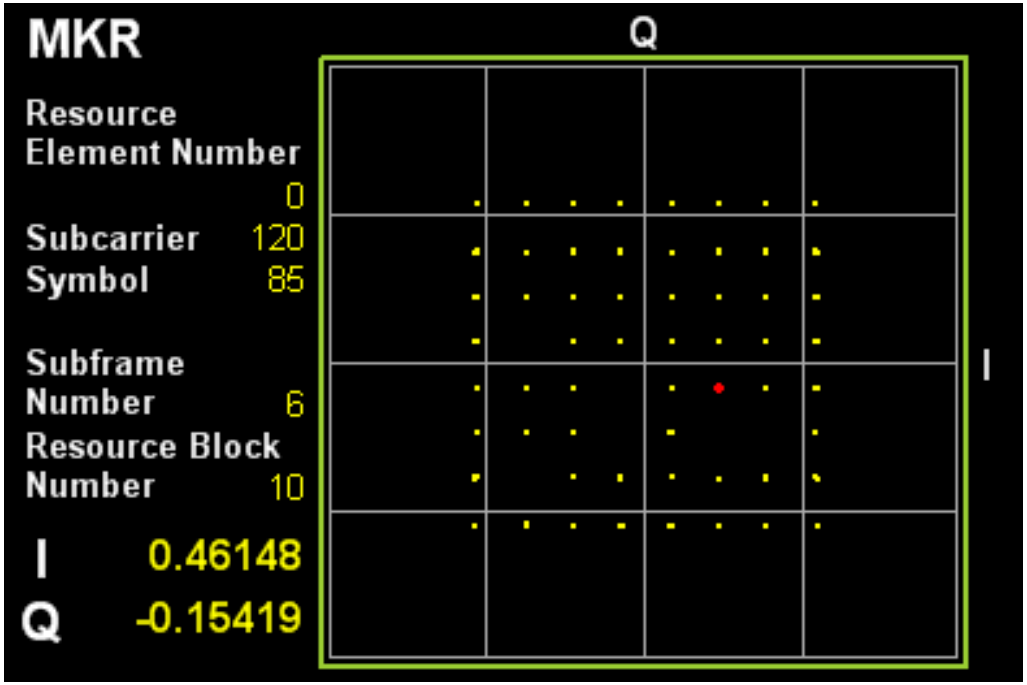
Measurement Results (text)



Measurement Functions/ Constellation Display (Constellation)

Displays Constellation for all active subcarriers in user-specified symbol or in user-specified resource block (RB). Analyzes QPSK/16QAM/64QAM.

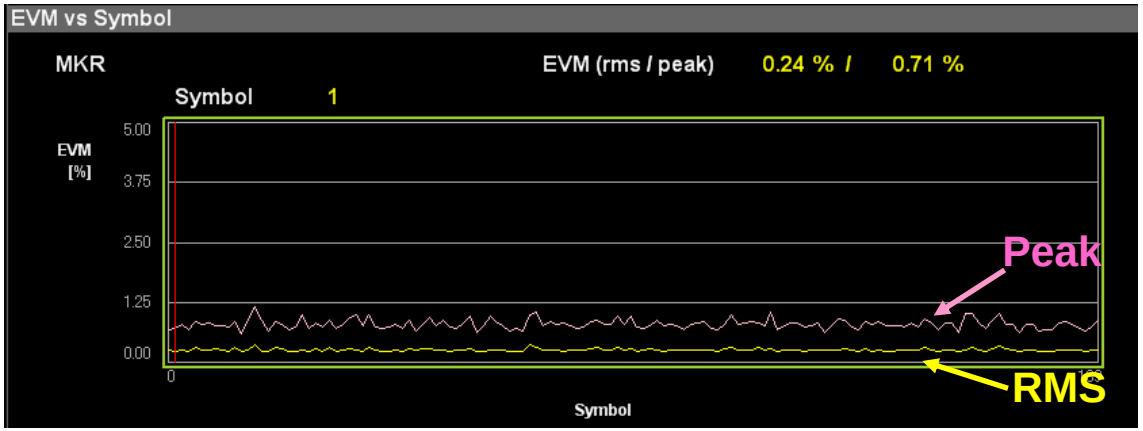
Constellation (Resource Block Number: 10)



Measurement Functions/ Graph Display (EVM vs Subcarrier)

Displays EVM graph per subcarrier targeting user-specified symbol or user-specified subframes (10 max). Displays Peak and Average (rms) on same screen. This enables measurement of instantaneous EVM.

EVM vs Subcarrier

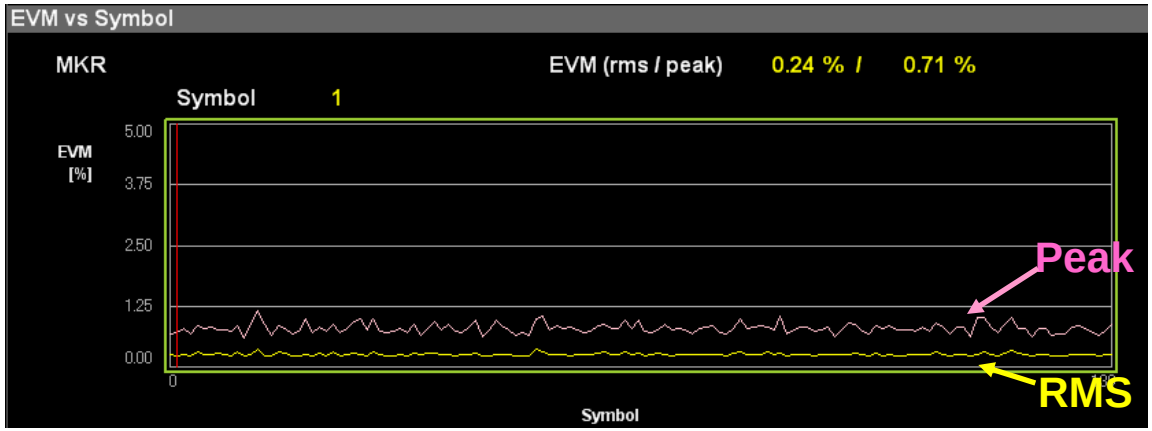


Measurement Functions/ Graph Display (EVM vs Symbol)

Displays EVM graph per symbol targeting user-specified symbol or user-specified subframes.

Displays Peak and Average (rms) on same screen. This enables measurement of instantaneous EVM.

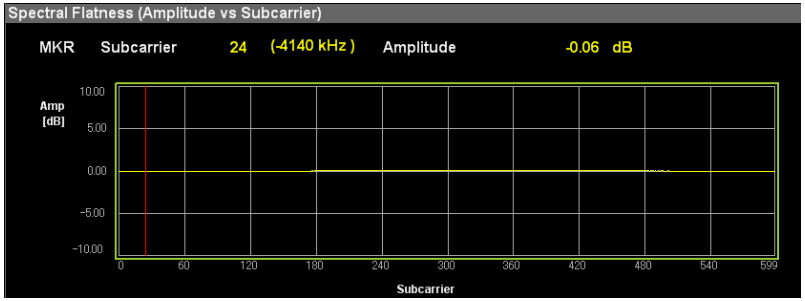
EVM vs Symbol



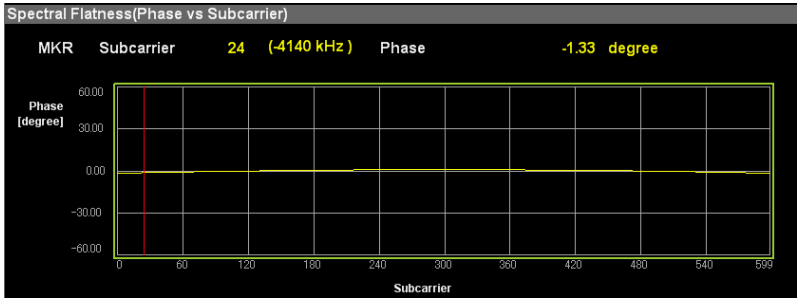
Measurement Functions/ Graph Display (Spectral Flatness)

Displays amplitude/phase/group delay graph in user-specified subframes. Detects OFDM-specific problems such as symbol timing error between subcarriers.

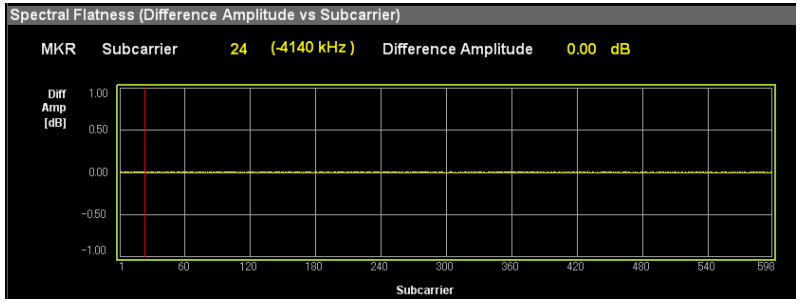
Amplitude display



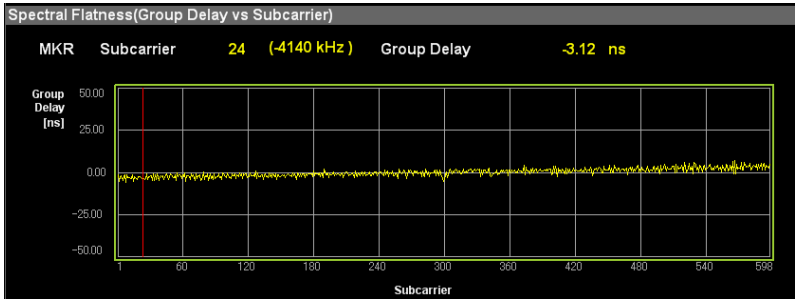
Phase display



Amplitude difference display



Group delay display

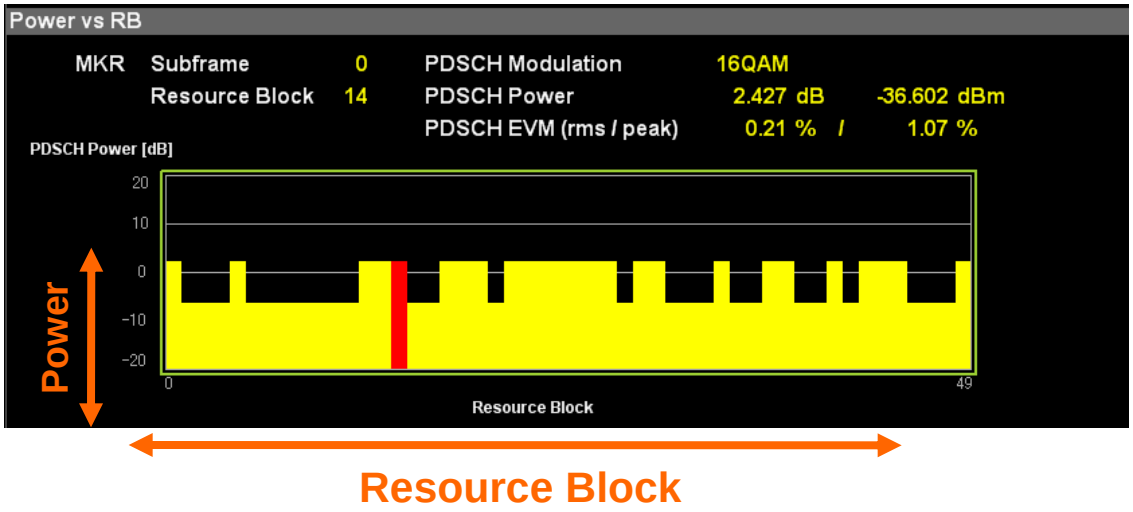


Measurement Functions/ Graph Display 1/2 (Power vs Resource Block)

Downlink

Observes power distribution of each resource block of specified subframe. Checks power boosting at each resource block.

Power vs RB
(specified subframe display)



*RB time axis in subframe units

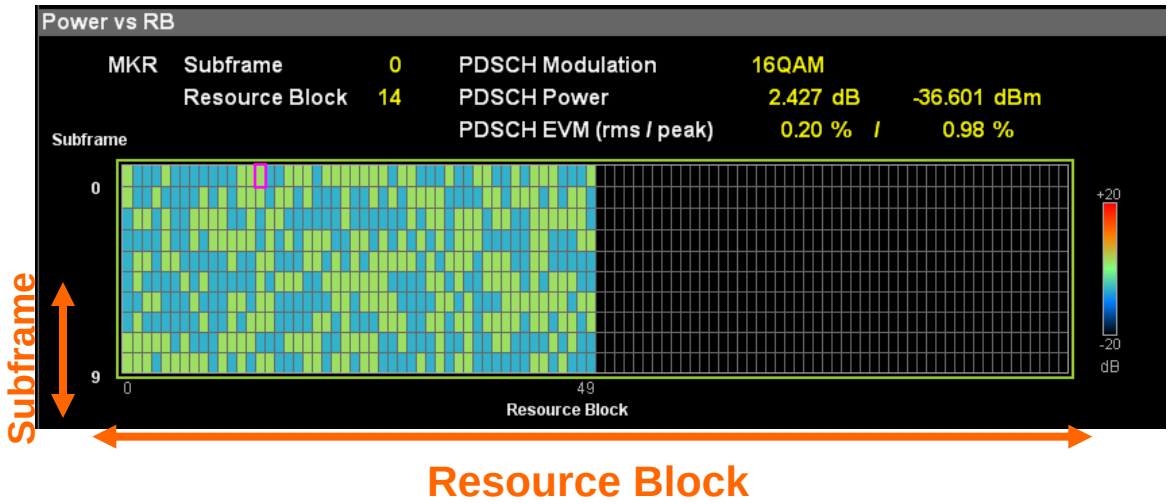
Measurement Functions/ Graph Display 2/2 (Power vs Resource Block)

Downlink

Displays power of each resource block of specified subframe segments as graph.

The power distribution of each resource block can be seen instantly.

Power vs RB (whole display)



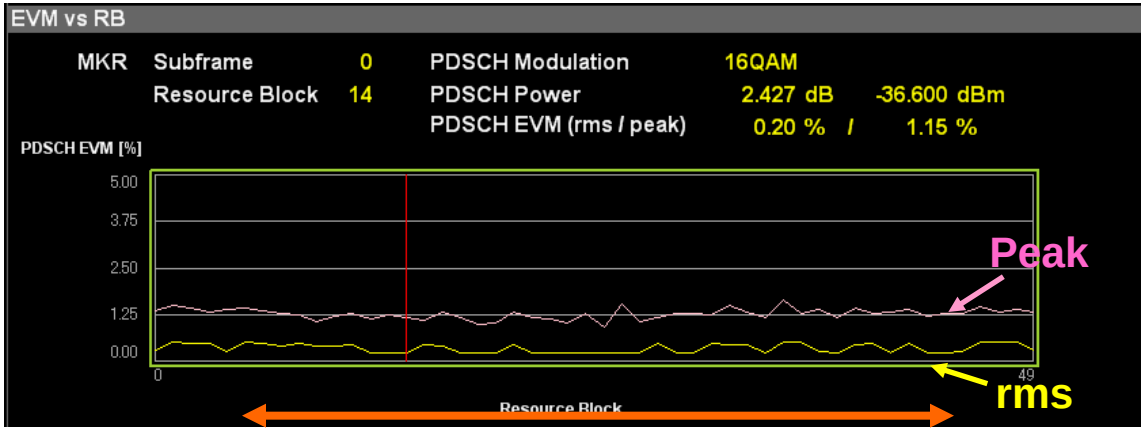
*RB time axis in subframe units

Measurement Functions/ Graph Display (EVM vs Resource Block)

Downlink

Displays EVM distribution for each resource block of specified subframe segments as graph. Identify EVM deterioration with resource block.

EVM vs RB



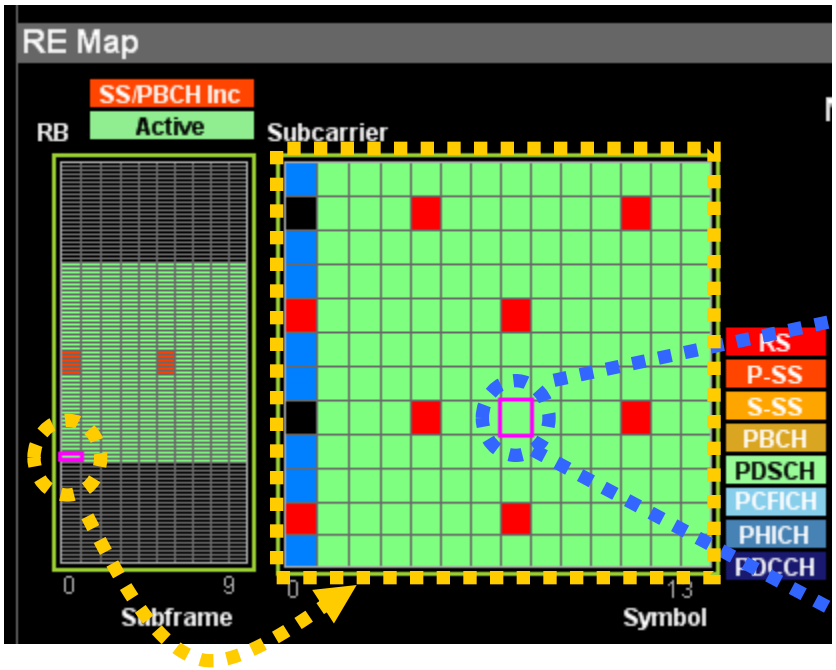
Resource Block

*RB time axis in subframe units

Measurement Functions/ Graph Display (RE MAP)

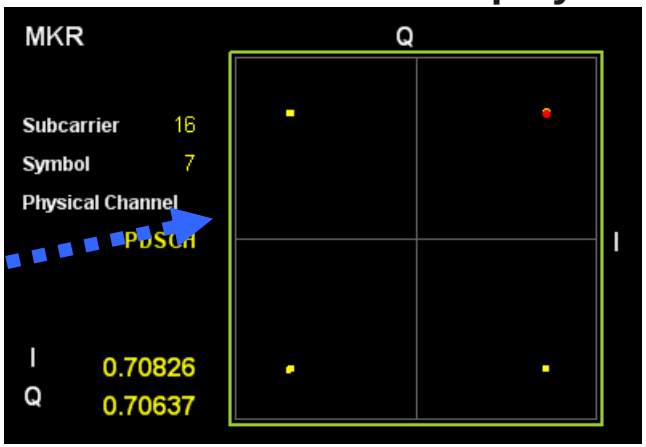
Downlink

Displays physical channel in resource block (RB) and resource element (RE). The constellation for each RE and EVM result can be confirmed at the graphical display, supporting intuitive recognition of channel performance.

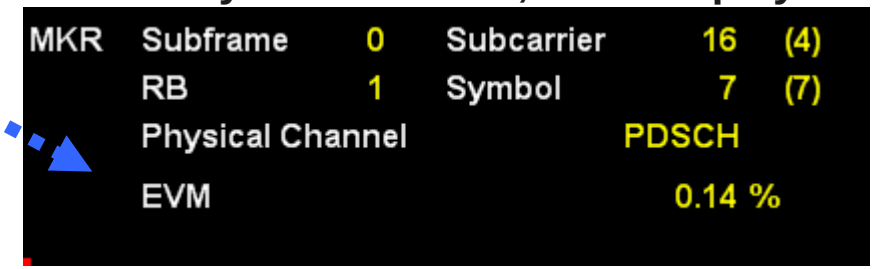


RB Enlarged Display

RE Constellation Display



RE Physical Channel, EVM Display

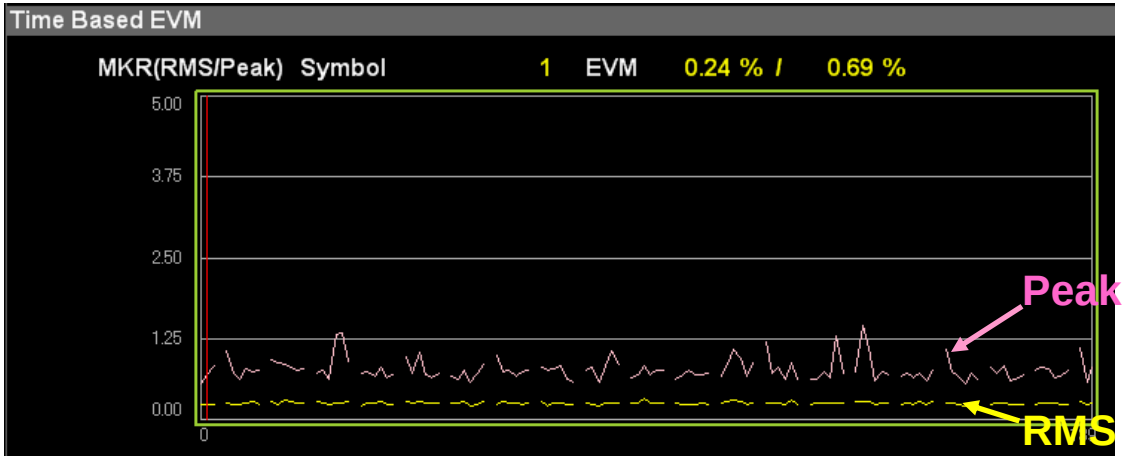


Measurement Functions/ Graph Display (Time Based EVM)

Uplink

Displays PUSCH EVM of each symbol for all subcarriers as graph to observe temporal change in PUSCH EVM.

Time Based EVM

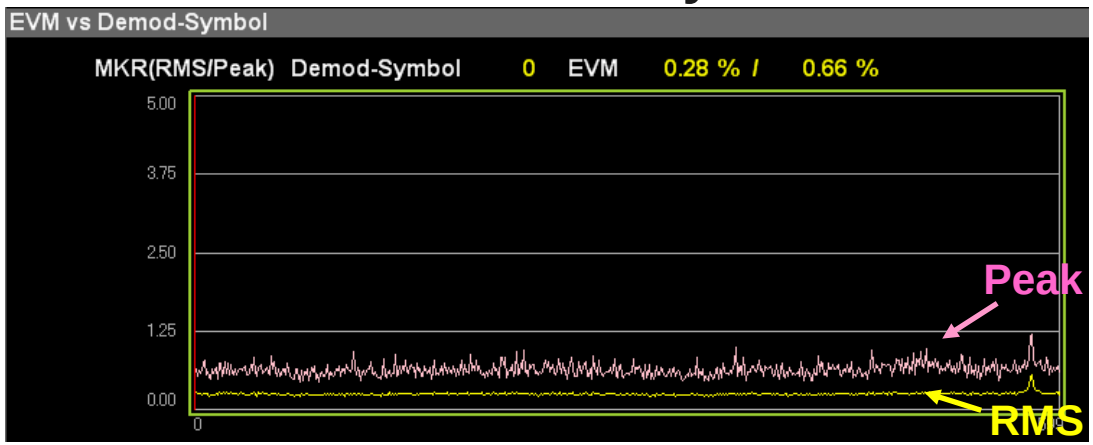


Measurement Functions/ Graph Display (EVM vs Demod-Symbol)

Uplink

Displays PUSCH EVM of demodulated symbol for up to 10 subframes for specified symbols or specified segments as graph.

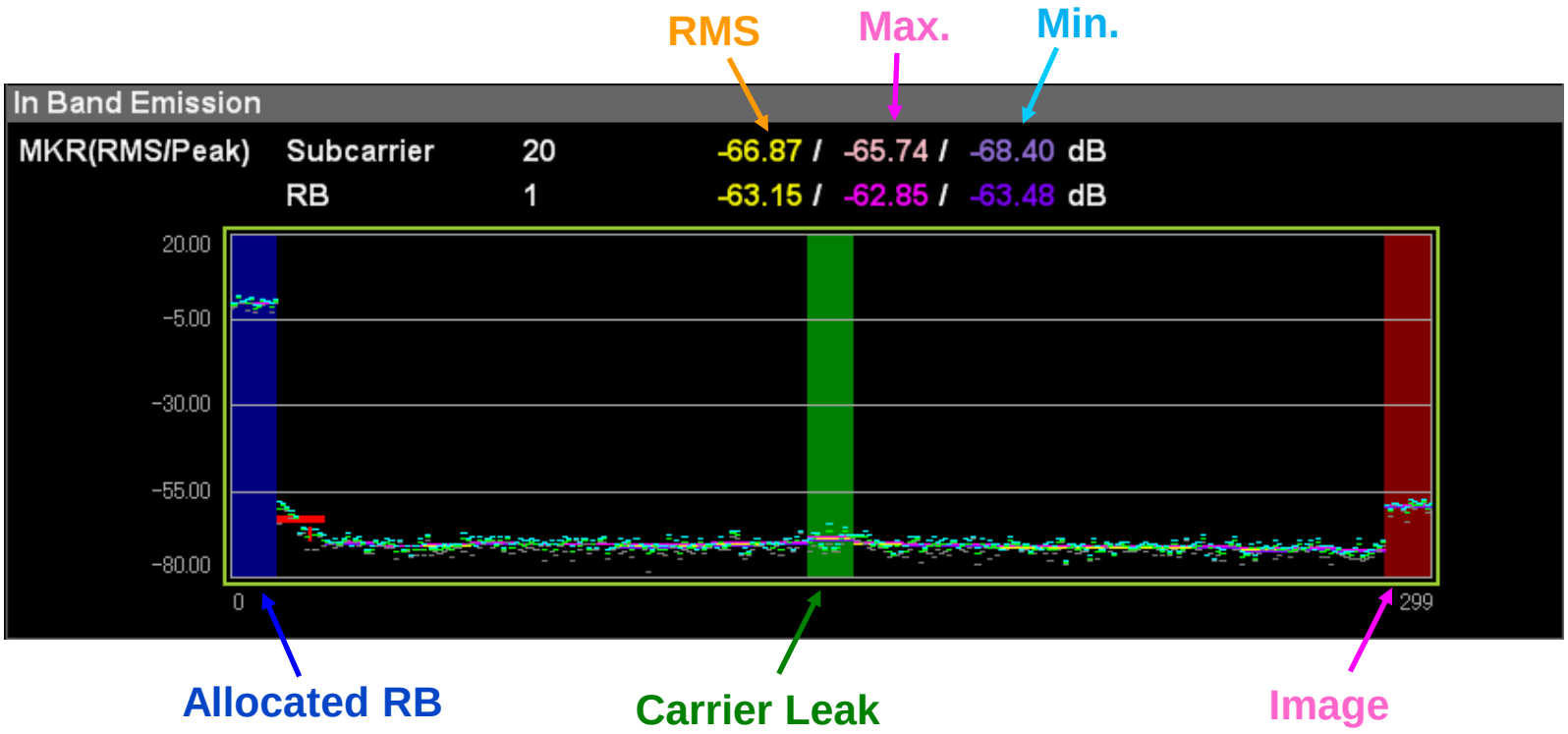
EVM vs Demod-Symbol



Measurement Functions/ Graph Display (In-Band Emission)

Uplink

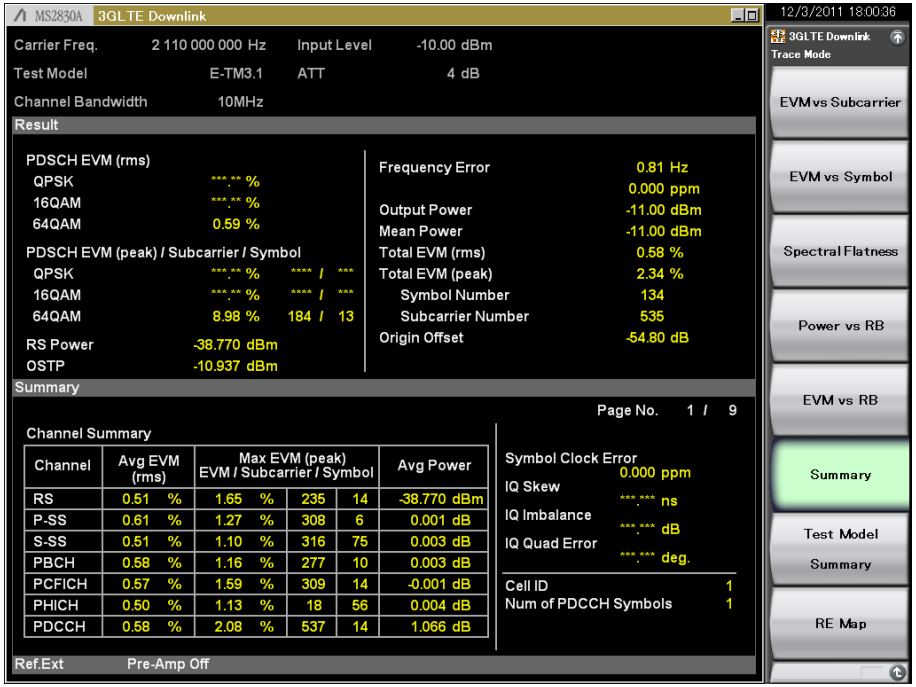
Measures In-Band Emission per resource block at each Tx band spurious, carrier leak and image. Displays power (RMS/Max./Min.) per resource block as well as subcarrier for easy understanding of in-band spurious.

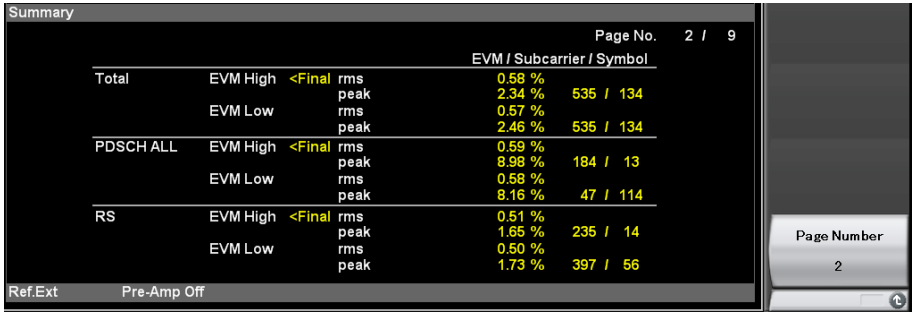


Measurement Functions/Summary Display (1/2)

Downlink

- EVM/Power of Each Channel
- Symbol Clock Error
- IQ Skew/ IQ Imbalance/ IQ Quad Error
- Cell ID
- Number of PDCCH Symbols
- Total EVM
- PDSCH (ALL/QPSK/16QAM/64QAM) EVM
- RS/SS/P-SS/S-SS EVM
- PBCH/PCFICH/PHICH EVM
- PDCCH/DTX EVM
- Power vs Slot
- RS power vs Subframe
- OFDM Symbol Tx Power vs Subframe
- Channel Power (RS/P-SS/S-SS/PBCH/ PCFICH/PHICH/PDCCH)
- Channel Power / RS (P-SS/S-SS/PBCH/ PCFICH/PHICH/PDCCH)

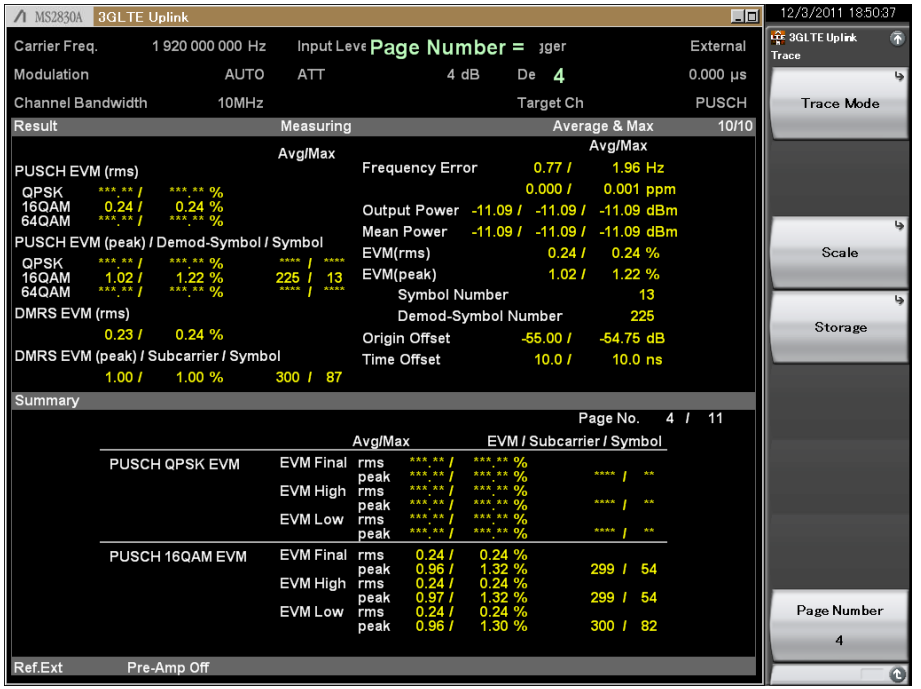


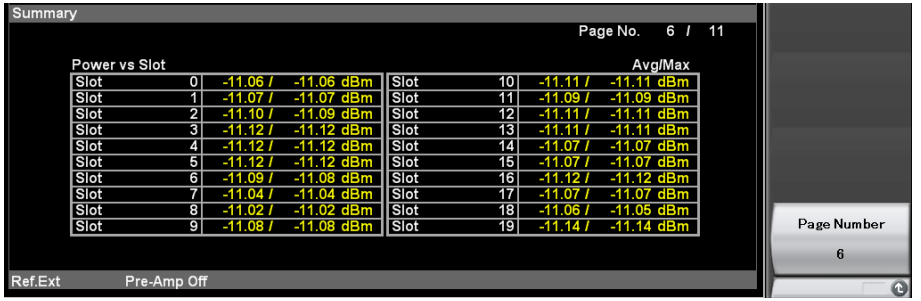


Measurement Functions/Summary Display (2/2)

Uplink

- Total EVM (Time Based)
- PUSCH QPSK EVM (Time Based)
- PUSCH 16QAM EVM (Time Based)
- PUSCH 64QAM EVM (Time Based)
- Total EVM (Frequency Based)
- PUSCH ALL EVM
- PUSCH QPSK EVM
- PUSCH 16QAM EVM
- PUSCH 64QAM EVM
- RS EVM
- Power vs Slot
- Frequency Error vs Slot [Hz]
- Frequency Error vs Slot [ppm]
- Origin Offset vs Slot
- In-Band Emisssion
- Spectral Flatness





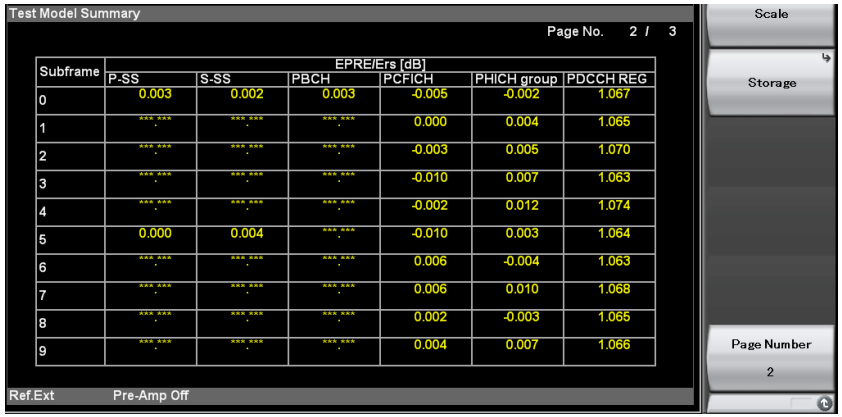
Measurement Functions/Test Model Summary

Downlink

Downlink

- RS boosting of each Subframe
- EPRE/Ers for each Subframe
  P-SS, S-SS, PBCH, PCFICH,
  PHICH group, PDCCH REG
- PDSCH EPRE/Ers QPSK/16QAM/64QAM





Measurement Functions/MIMO Summary

Downlink

At MIMO Summary measurements for Tx Diversity and MIMO signals, the mixed signal from multiple antennas is input and the time difference between each antenna is measured.

Downlink

- **RS Power**
  The difference in the RS Power between the antenna signal specified at Antenna Port and the signal for each antenna specified at Number of Antenna Ports is displayed in dB units.
- **RS EVM**
  This displays each RS EVM value for the number of antennas specified at Number of Antenna Ports.
- **RS Timing Offset**
  This displays the RS time difference between the antenna signal specified at Antenna Port and each of the number of antennas specified at Number of Antenna Ports.
- **RS Freq**
  This displays the frequency difference between the antenna signal specified at Antenna Port and each of the number of antennas specified at Number of Antenna Ports.

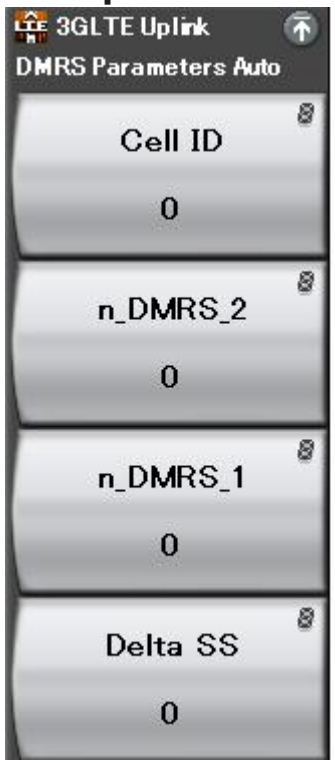


Auto Measurement Function (DMRS Parameters)

Uplink

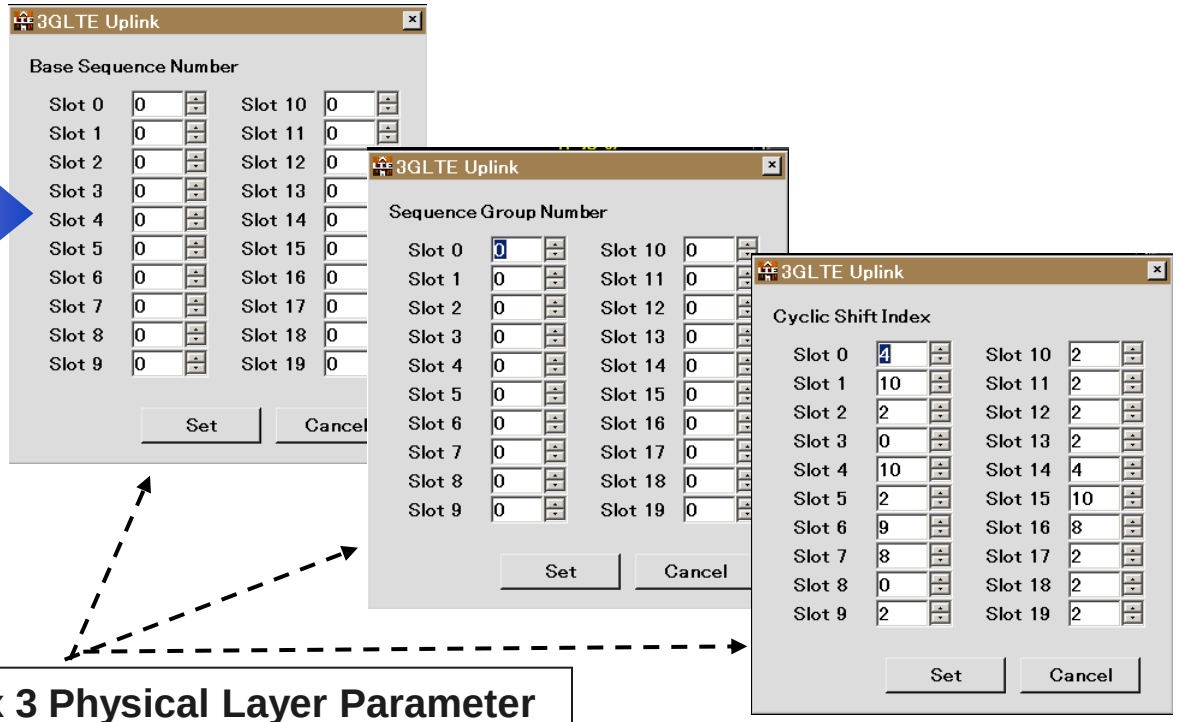
Inputting broadcast and control information automatically calculates and sets physical layer parameters for DMRS (DeModulation Reference Signal) pattern generation.

Input following four parameters



Auto calculation

Automatic setting of 60 physical layer parameters

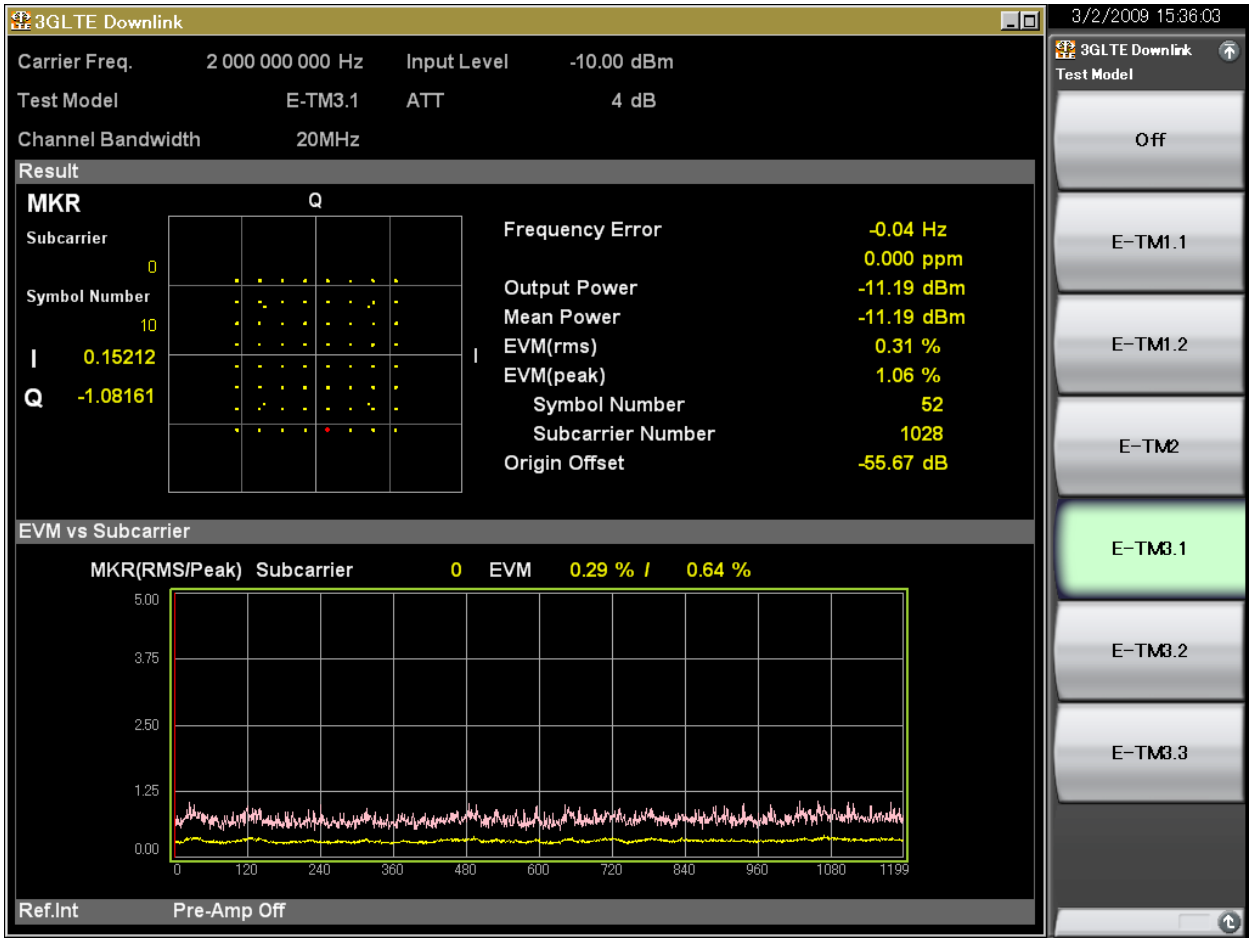


20 Slots x 3 Physical Layer Parameter

Easy Measurement of Test Model Signals

Downlink

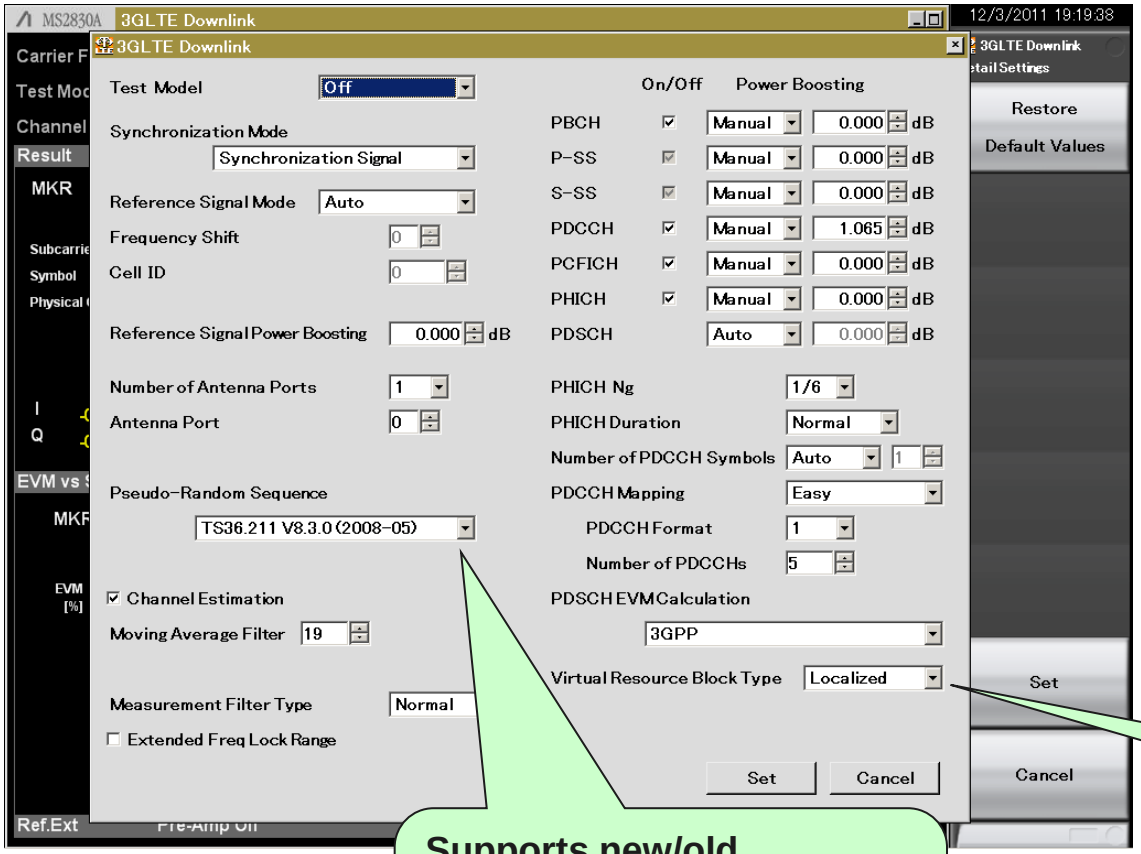
Test model signals defined in 3GPP TS36.141 as test patterns for BTS Tx tests are easily measured by selecting the test model name.



Easy measurement by selecting test model name

Detail Setting Screen

Detailed parameters, such as channel estimation ON/OFF and pseudorandom sequence specification, recommended in 3GPP TS36.211, can be set.



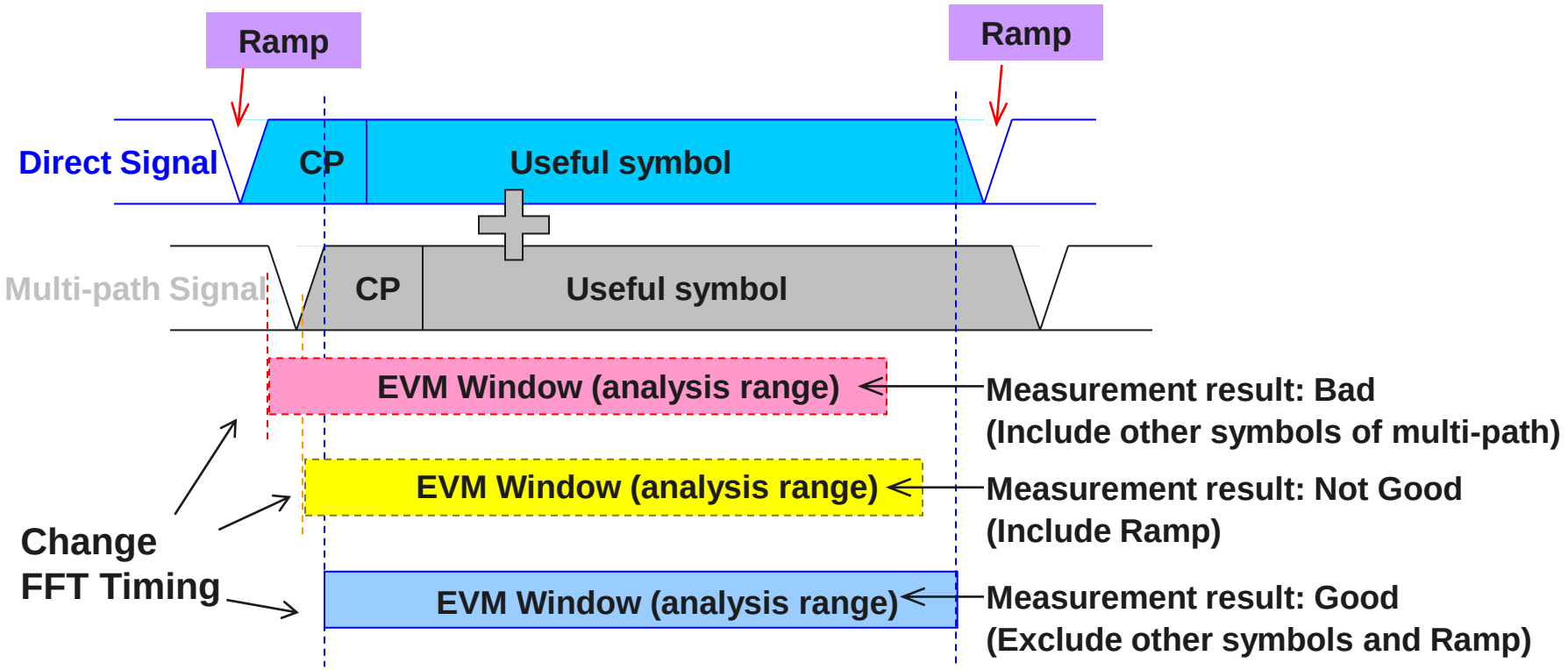
Selecting Test Model Name measures Test Model signals

Supports new/old pseudorandom sequence
TS36.211(V8.2.0)
TS36.211(V8.3.0)

Supports Localized/Distributed virtual resource block type

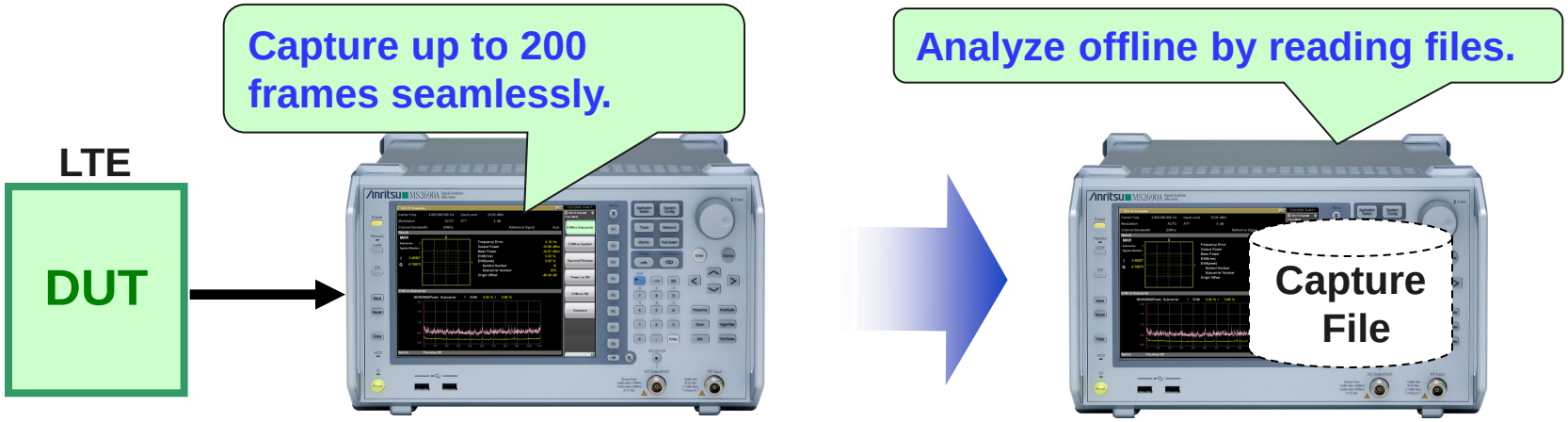
EVM Window Length Function

The EVM Window Length function supports flexible changing of FFT timing, which is useful for verification, such as the effect of multi-paths and Ramps.



Replay Function for Troubleshooting Faults

Up to 200 frames of LTE signals can be captured as a file for replay by the LTE measurement software to perform analyses, such as EVM measurement.



Example of R&D use

Save data for comparing each DUT test version

⇒ Supports comparison of retrofitting improvement effects

Example of production line use

Save shipping inspection data

⇒ Supports rechecking of performance data for troubleshooting post-shipping faults

Downlink

MX269020A-001
LTE-Advanced FDD Downlink Measurement Software

Batch Measurement Function

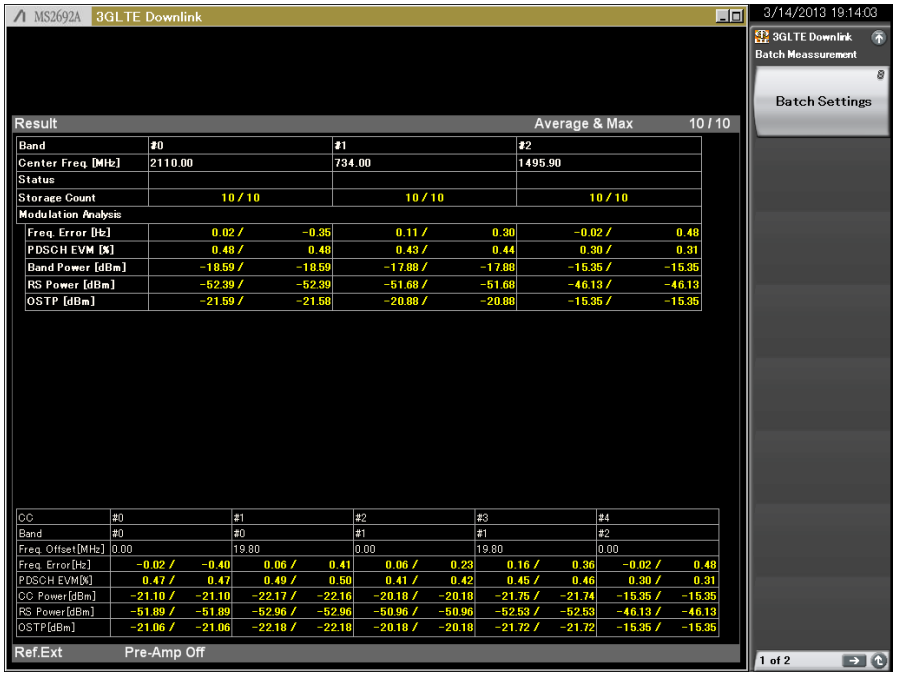
●Batch Measurement Function

One measurement supports modulation analysis for all component carriers configuring carrier aggregation signals.

Measurement results, such as EVM and frequency errors for each band and component carriers, improves the efficiency.

The LTE-Advanced Carrier Aggregation measurement range varies as follows, depending on the Analysis Bandwidth Extension option configuration.

Using the 125-MHz analysis bandwidth hardware option (Opt-078) with the MS269xA/MS2830A enables presetting of the carrier aggregation signal to measure up to three frequency bands (one band with MS2830A) and a total of five carrier components in one simple operation.



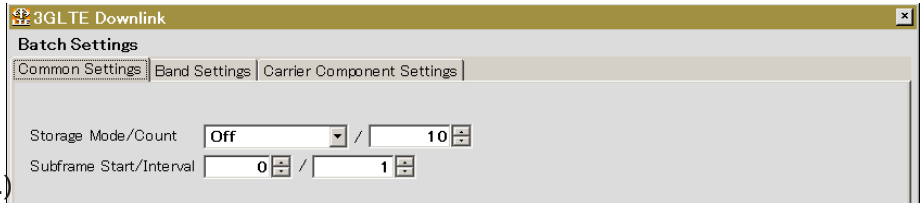
Model		LTE-Advanced Carrier Aggregation Signal	
Main frame	Analysis Bandwidth Extension Option Configuration	Number of Band	Number of Component Carrier
MS269xA	Opt. 078/004*1 installed	3	5 max. (total of 3 bands)
	Opt. 077*2 installed	3	3 max. (1 component carrier per band)
	Standard	3	3 max. (1 component carrier per band)
MS2830A	Opt. 078*3 installed	1	5 max.
	Opt. 077*4 installed	3	3 max. (1 component carrier per band)
	Opt. 005/009*5 installed	3	3 max. (1 component carrier per band)

*1: MS269xA-078 Analysis Bandwidth Extension to 125 MHz
MS269xA-004 Analysis Bandwidth Extension to125 MHz
*2: MS269xA-077 Analysis Bandwidth Extension to 62.5 MHz
*3: MS2830A-078 Analysis Bandwidth Extension to125 MHz
*4: MS2830A-077 Analysis Bandwidth Extension to 62.5 MHz
*5: MS2830A-005 Analysis Bandwidth Extension to 31.25 MHz
MS2830A-009 Analysis Bandwidth Extension to 31.25 MHz for Millimeter-wave

Batch Measurement Function

●Parameter setting (1/6)

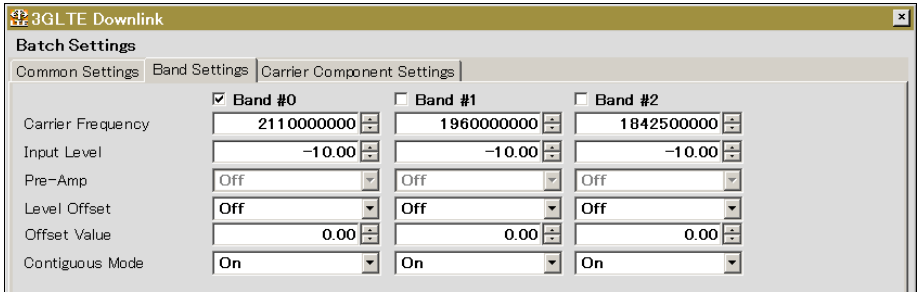
Simply selecting from a pull-down menu without numeric values sets measurement parameters for the carrier aggregation band and component carrier before measurement.



[Common Settings]

- **Storage Mode:** Off, Average, Average & MAX
- **Storage Count:** 2 to 9999
- **Starting Subframe Number:** 0 to 9 (Sets the analysis starting position.)
- **Measurement Interval:** 1 to (10 - Common Settings : Starting Subframe Number)

  (Sets the analysis subframe length (Measurement Interval). Each measurement result is the value averaged at the interval set by this parameter.)



[Band Settings]

- **Measurement Item:** Band #0, Band #1, Band #2

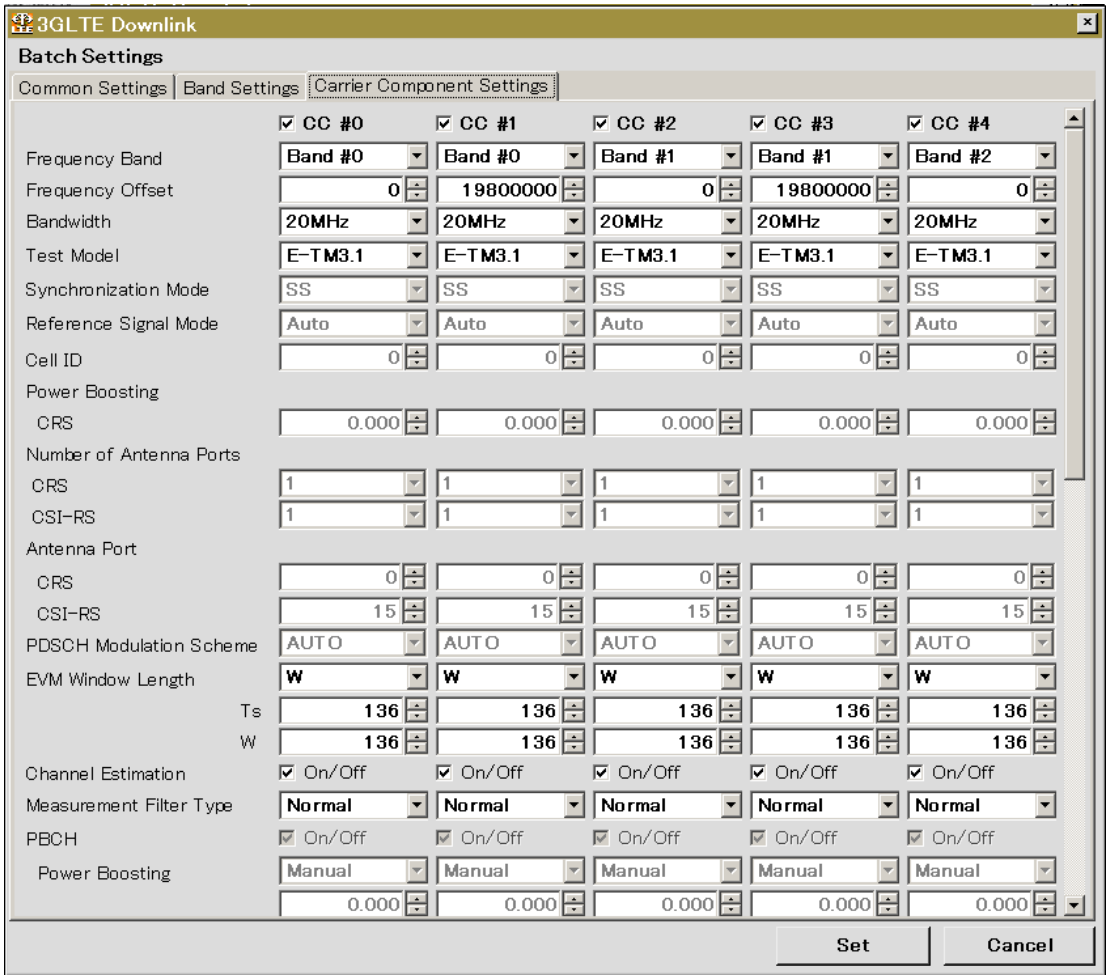
  (When the MX269020A-001 is not installed, it is fixed to Band 0.
  When MS2830A and the wideband option (Opt.078) are installed to the mainframe, this is fixed to Band 0.)
- **Carrier Frequency:**

  30 MHz to the upper limit of the main unit (When the wideband option (x78) is not installed)
  100 MHz to the upper limit of the main unit (When MS269xA and the wideband option (Opt.078) are installed to the mainframe)
  300 MHz to the upper limit of the main unit (When MS2830A and the wideband option (Opt.078) are installed to the mainframe)
- **Input Level:**

  For Pre-Amp: On : (−80.00 + Offset Value) to (10.00 + Offset Value) dBm
  For Pre-Amp: Off: (−60.00 + Offset Value) to (30.00 + Offset Value) dBm
- **Pre-Amp:** On, Off
- **Level Offset:** On, Off
- **Offset Value:** -99.99 to +99.99 dB
- **Contiguous Mode:** On, Off (When the MX269020A-001 and the wideband option (Opt.078) is not installed, it is fixed to Off.)

Batch Measurement Function

●Parameter setting (2/6)



[Carrier Component Settings]

- **- Measurement Item:** CC#0 to #4
  (1 component carrier per band for MS269xA with Opt-077, standard MS269xA, or M2830A with Opt-077/005/009.)
- **- Frequency Band:** Band#0 to #2
  (Fixed to Band 0 for MS2830A with Opt-078.)
- **- Frequency Offset:**
  -50000000 + (Channel Bandwidth/2) to 50000000 - (Channel Bandwidth/2) Hz
  Resolution: 300kHz (Contiguous Mode: On)
  1Hz (Contiguous Mode: Off)
  (When the MX269020A-001 and the wideband option (Opy.078) is not installed, it is fixed to 0 Hz.)
- **- Channel Bandwidth:** 1.4/3/5/10/15/20MHz
- **- Test Model:** Off/E-TM1.1/E-TM1.2/E-TM2/ E-TM3.1/E-TM3.2/E-TM3.3
- **- Synchronization Mode:**
  SS (Synchronization Signal)
  RS (Reference Signal)
  (If SS is selected, the input signal includes Primary Synchronization Signal (P-SS) and Secondary Synchronization Signal (S-SS).)
- **- Reference Signal Mode:** Auto, Using Cell ID
- **- Cell ID:** 0 to 503

Batch Measurement Function

●Parameter setting (3/6)

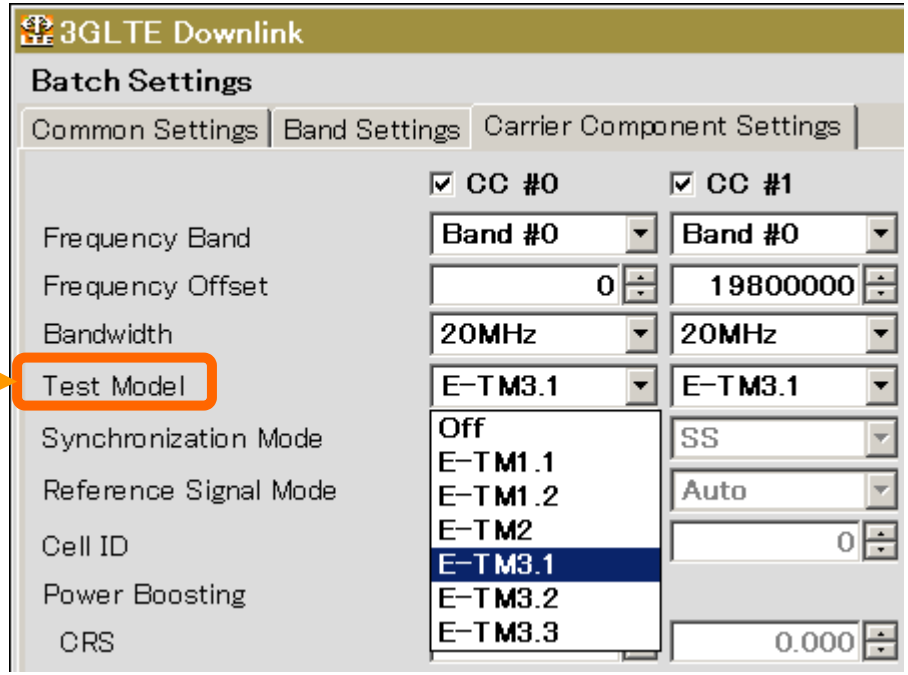
[Carrier Component Settings]

- Easy Measurement of Test Model Signals -

E-TM1.1 / E-TM1.2 / E-TM2 / E-TM3.1 / E-TM3.2 / E-TM3.3

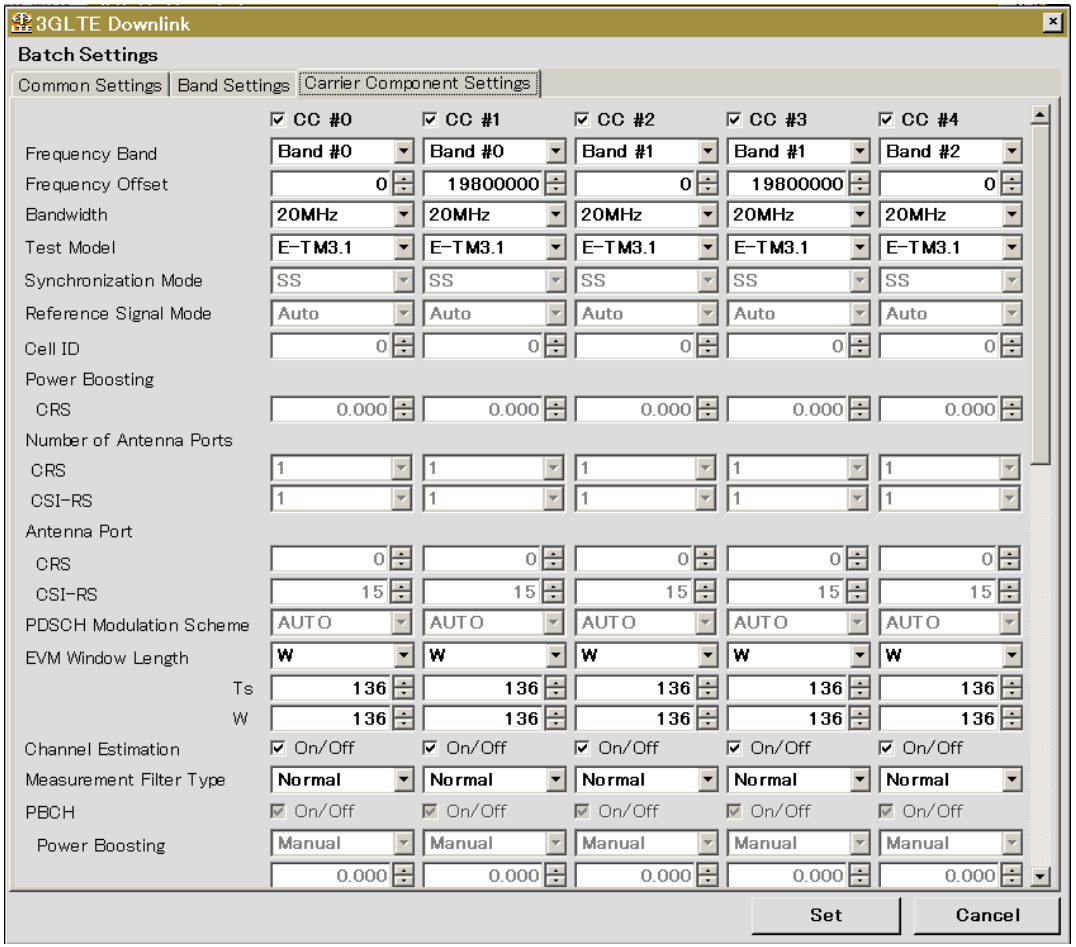
Test model signals defined in 3GPP TS 36.141 as test patterns for BTS Tx tests are easily measured by selecting the test model name.

Easy measurement by selecting test model name



Batch Measurement Function

●Parameter setting (4/6)



[Carrier Component Settings]

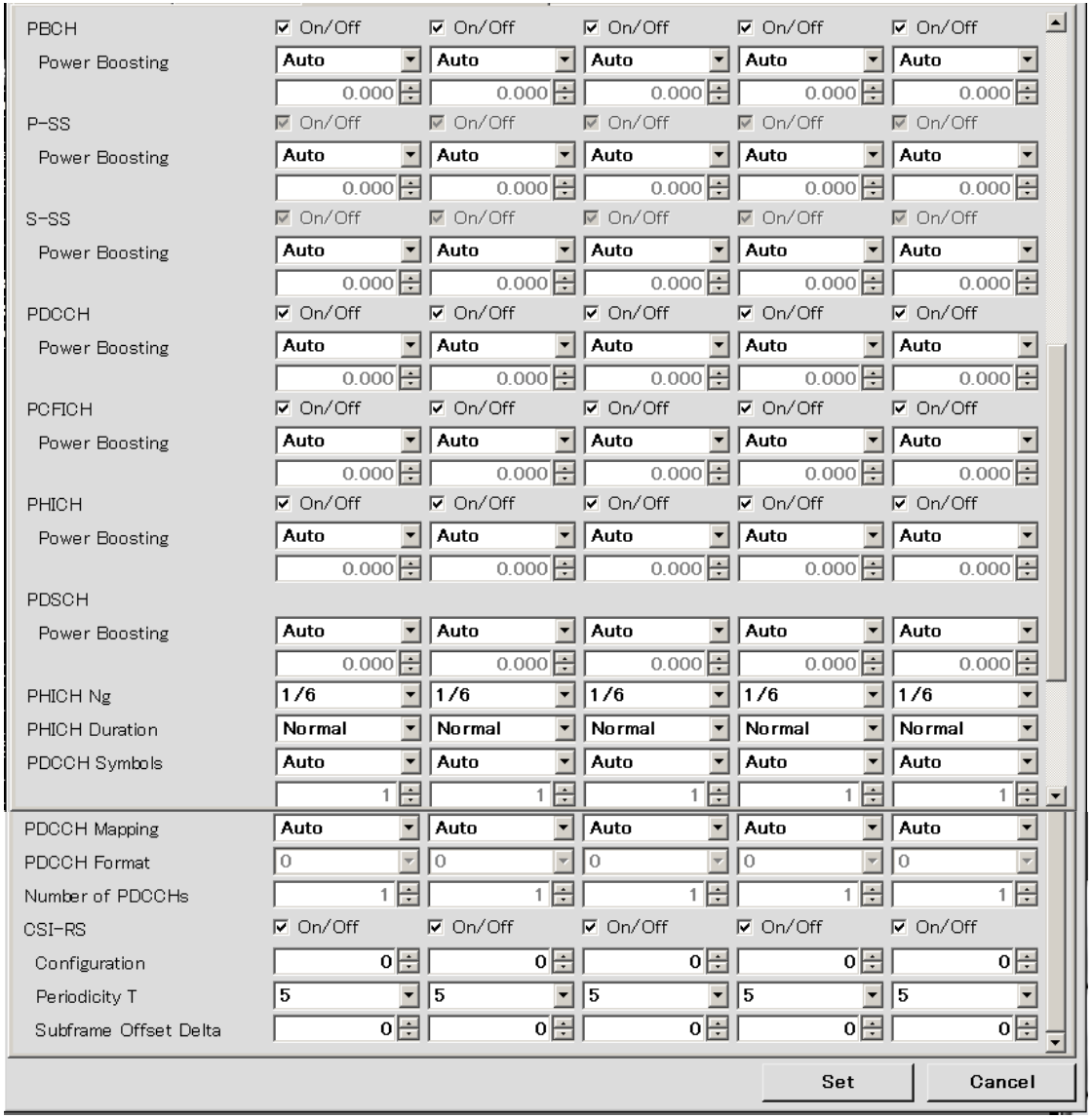
- **CRS Power Boosting:** -20.000 to +20.000dB
- **CRS Number of Antenna Ports:** 1, 2, 4
- **CSI-RS Number of Antenna Ports:** 1, 2, 4, 8
- **CRS Antenna Port:**
  0 to CRS Number of Antenna Ports - 1
- **CSI-RS Antenna Port:**
  15 to CSI-RS Number of Antenna Ports+14
- **PDSCH Modulation Scheme:**
  QPSK, 16QAM, 64QAM, AUTO
- **EVM Window Length:**
  Ts : 0 to 142
  W : 0 to 8 (Channel Bandwidth: 1.4MHz)
  0 to 17 (Channel Bandwidth: 3MHz)
  0 to 35 (Channel Bandwidth: 5MHz)
  0 to 71 (Channel Bandwidth: 10MHz)
  0 to 106 (Channel Bandwidth: 15MHz)
  0 to 142 (Channel Bandwidth: 20MHz)
- **Channel Estimation:** On/Off
- **Measurement Filter Type:**
  Normal (Use this when measuring single carrier signal.)
  Narrow (Use this when measuring multi-carrier signal. This measures one carrier signal.)
  (This can be set when Band Settings: Contiguous Mode is set to Off.)

Batch Measurement Function

●Parameter setting (5/6)

[Carrier Component Settings]

- **PBCH:** On/Off
- **PBCH Power Boosting:** Auto, Manual
- **PBCH Power Boosting:** -20.000 to +20.000dB
- **P-SS:** On/Off
- **P-SS Power Boosting:** Auto, Manual
- **P-SS Power Boosting:** -20.000 to +20.000dB
- **S-SS:** On/Off
- **S-SS Power Boosting:** Auto, Manual
- **S-SS Power Boosting:** -20.000 to +20.000dB
- **PDCCH:** On/Off
- **PDCCH Power Boosting:** Auto, Manual
- **PDCCH Power Boosting:** -20.000 to +20.000dB
- **PCFICH:** On/Off
- **PCFICH Power Boosting:** Auto, Manual
- **PCFICH Power Boosting:** -20.000 to +20.000dB
- **PHICH:** On/Off
- **PHICH Power Boosting:** Auto, Manual
- **PHICH Power Boosting:** -20.000 to +20.000dB
- **PDSCH Power Boosting:** Auto, Manual
- **PDSCH Power Boosting:** -20.000 to +20.000dB
- **PHICH Ng:** 1/6, 1/2, 1, 2
- **PHICH Duration:** Normal , Extended
- **PDCCH Symbols:** Auto, Manual
  - 0 to 4 (Channel Bandwidth : 1.4 MHz)
  - 0 to 3 (Channel Bandwidth : other than 1.4 MHz)



Batch Measurement Function

●Parameter setting (6/6)

[Carrier Component Settings]

- PDCCH Mapping:

Sets mapping of PDCCH and NIL (dummy PDCCH) to the control channel elements (CCEs).

Auto: Automatically evaluates and measures PDCCH and NIL

Full: Performs measurement assuming that only PDCCHs are mapped (no NIL). Even if REG is a value smaller than the CCE unit, measurement is performed assuming that PDCCHs are mapped.

Easy: Performs measurement for all subframes according to the PDCCH mapping that is determined by the PDCCH Format and Number of PDCCHs parameters. Measurement is performed assuming that PDCCHs are mapped sequentially from the first CCE for the number specified by Number of PDCCHs in the unit specified by PDCCH Format.

- PDCCH Format: 0 to 3

(This setting applies if CC Settings:PDCCH Mapping is set to Easy.)

- Number of PDCCHs: 1 to 88

(This setting applies if CCSettings: PDCCH Mapping is set to Easy.)

- CSI-RS: On/Off

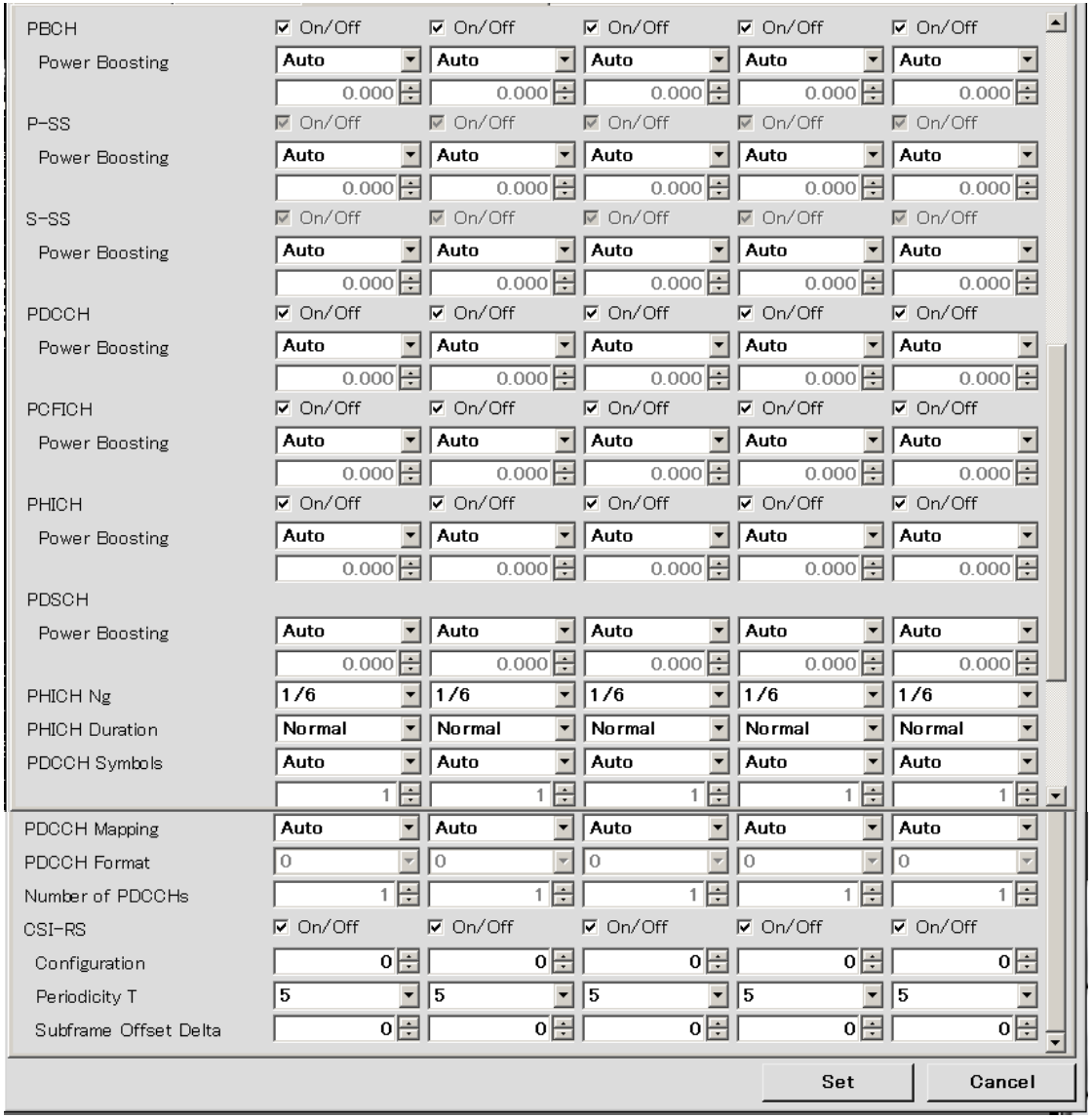
- CSI-RS Configuration:

0 to 4 (CSI-RS Number of Antenna Ports :8)
0 to 9 (CSI-RS Number of Antenna Ports :4)
0 to 19 (CSI-RS Number of Antenna Ports :2)
0 to 19 (CSI-RS Number of Antenna Ports :1)

- CSI-RS Periodicity T: 5, 10

- CSI-RS Subframe Offset:

0 to 9 (CSI-RS Periodicity T: 10)
0 to 4 (CSI-RS Periodicity T: 5)



Batch Measurement Function

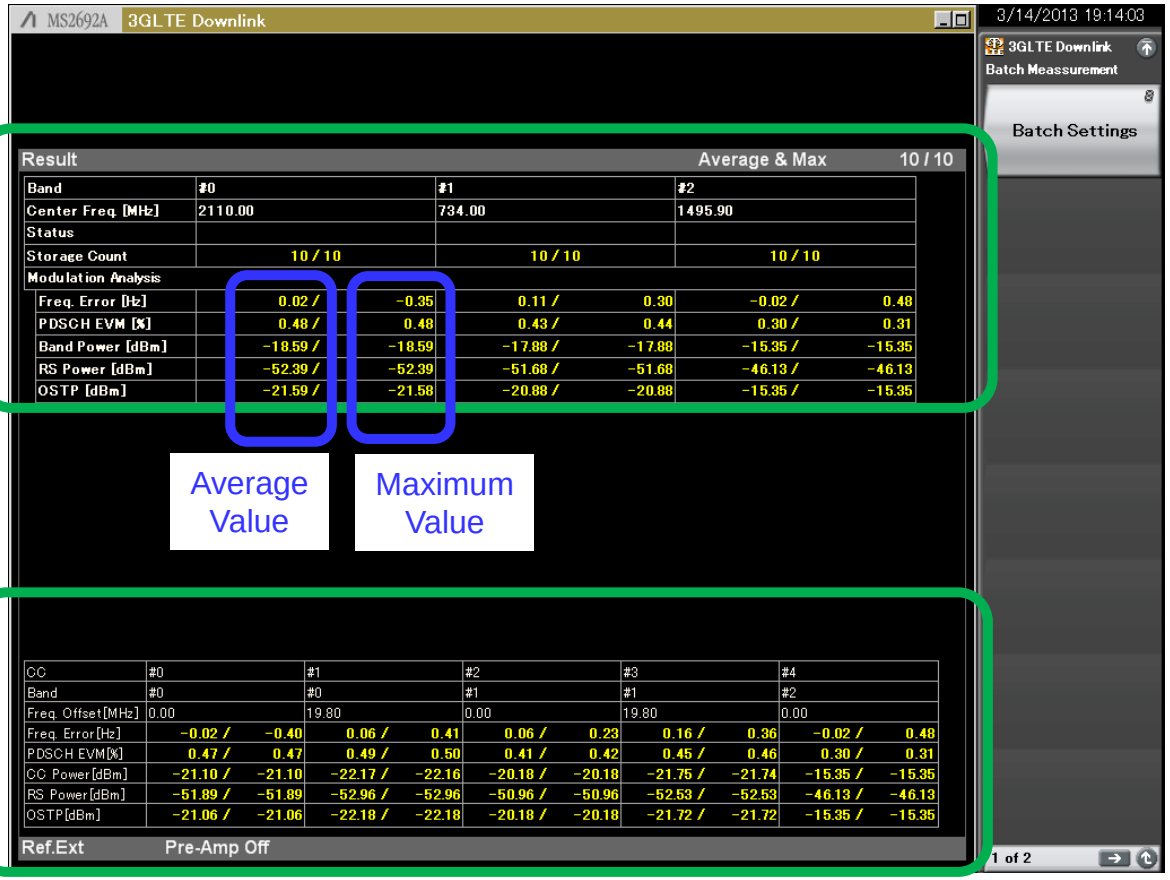
●Batch Measurement Result Display (1/3)

Measurement results, such as EVM and frequency errors for each band and component carriers, are displayed at one time.

Choosing Average & Max displays average and maximum values on same screen. This is useful for evaluating DUT dispersion.

Band Measurement Result

Component Carrier Measurement Result



Batch Measurement Function

●Batch Measurement Result Display (2/3)

Band Measurement Result Display

- **Band:** Band #0 to #2
- **Frequency Error:** Displays the average frequency error of the CC included in Band.
- **PDSCH EVM:** Displays the average PDSCH EVM of the CC included in Band.
- **Band Power:** Displays the RF level of the Band.
  When the wideband option (Opt.078) is not installed, no measurement results are displayed.
  When the wideband option (Opt.078) is installed, the measurement result of 125 MHz bandwidth is displayed.
- **RS Power:** Displays the average RS power value of the CC included in Band.
- **OSTP:** Displays the average OSTP of the CC included in Band.

Result — Average & Max — 10 / 10

Band	#0		#1		#2	
Center Freq [MHz]	2110.00		734.00		1495.90	
Status						
Storage Count	10 / 10		10 / 10		10 / 10	
Modulation Analysis						
Freq. Error [Hz]	0.02 /	-0.35	0.11 /	0.30	-0.02 /	0.48
PDSCH EVM [%]	0.48 /	0.48	0.43 /	0.44	0.30 /	0.31
Band Power [dBm]	-18.59 /	-18.59	-17.88 /	-17.88	-15.35 /	-15.35
RS Power [dBm]	-52.39 /	-52.39	-51.68 /	-51.68	-46.13 /	-46.13
OSTP [dBm]	-21.59 /	-21.58	-20.88 /	-20.88	-15.35 /	-15.35

Average Value Maximum Value

Batch Measurement Function

●Batch Measurement Result Display (3/3)

Component Carrier Measurement Result Display

- **Frequency Error:** Displays the average frequency error of the CC.
- **PDSCH EVM:** Displays the average PDSCH EVM of the CC.
- **CC Power:** Displays the average RF level of the CC.
- **RS Power:** Displays the RS power value of the CC.
- **OSTP:** Displays the OSTP of the CC

CC	#0		#1		#2		#3		#4	
Band	#0		#0		#1		#1		#2	
Freq. Offset[MHz]	0.00		19.80		0.00		19.80		0.00	
Freq. Error[Hz]	-0.02 /	-0.40	0.06 /	0.41	0.06 /	0.23	0.16 /	0.36	-0.02 /	0.48
PDSCH EVM[%]	0.47 /	0.47	0.49 /	0.50	0.41 /	0.42	0.45 /	0.46	0.30 /	0.31
CC Power[dBm]	-21.10 /	-21.10	-22.17 /	-22.16	-20.18 /	-20.18	-21.75 /	-21.74	-15.35 /	-15.35
RS Power[dBm]	-51.89 /	-51.89	-52.96 /	-52.96	-50.96 /	-50.96	-52.53 /	-52.53	-46.13 /	-46.13
OSTP[dBm]	-21.06 /	-21.06	-22.18 /	-22.18	-20.18 /	-20.18	-21.72 /	-21.72	-15.35 /	-15.35

Average Value Maximum Value

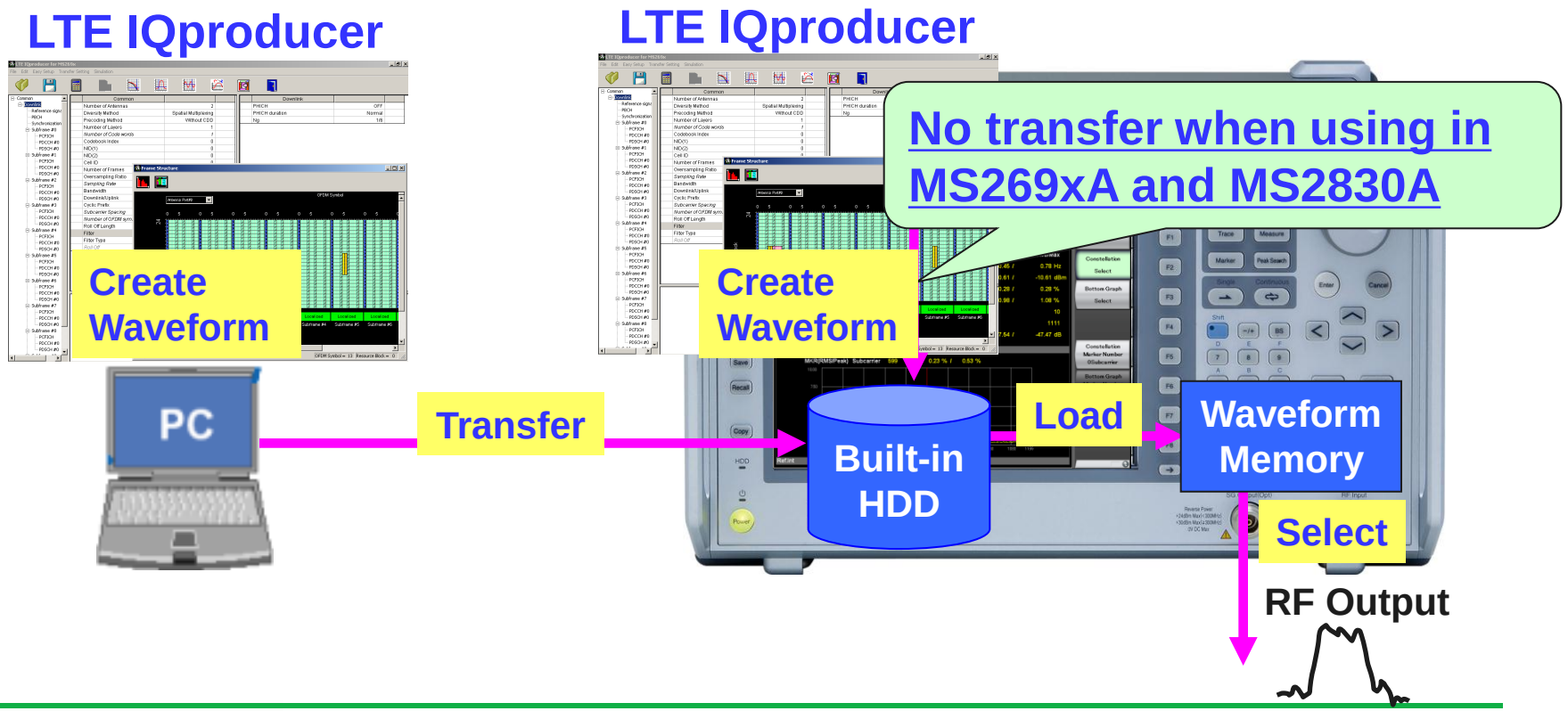
MX269908A LTE IQproducer
MX269908A-001 LTE-Advanced FDD Option
(MS269xA/MS2830A for Vector Signal Generator option)

LTE IQproducer

The MX269908A LTE IQproducer is PC application software with a GUI for generating waveform patterns in compliance with the LTE FDD specifications in the 3GPP TS 36.211, TS 36.212, and TS 36.213 standards.

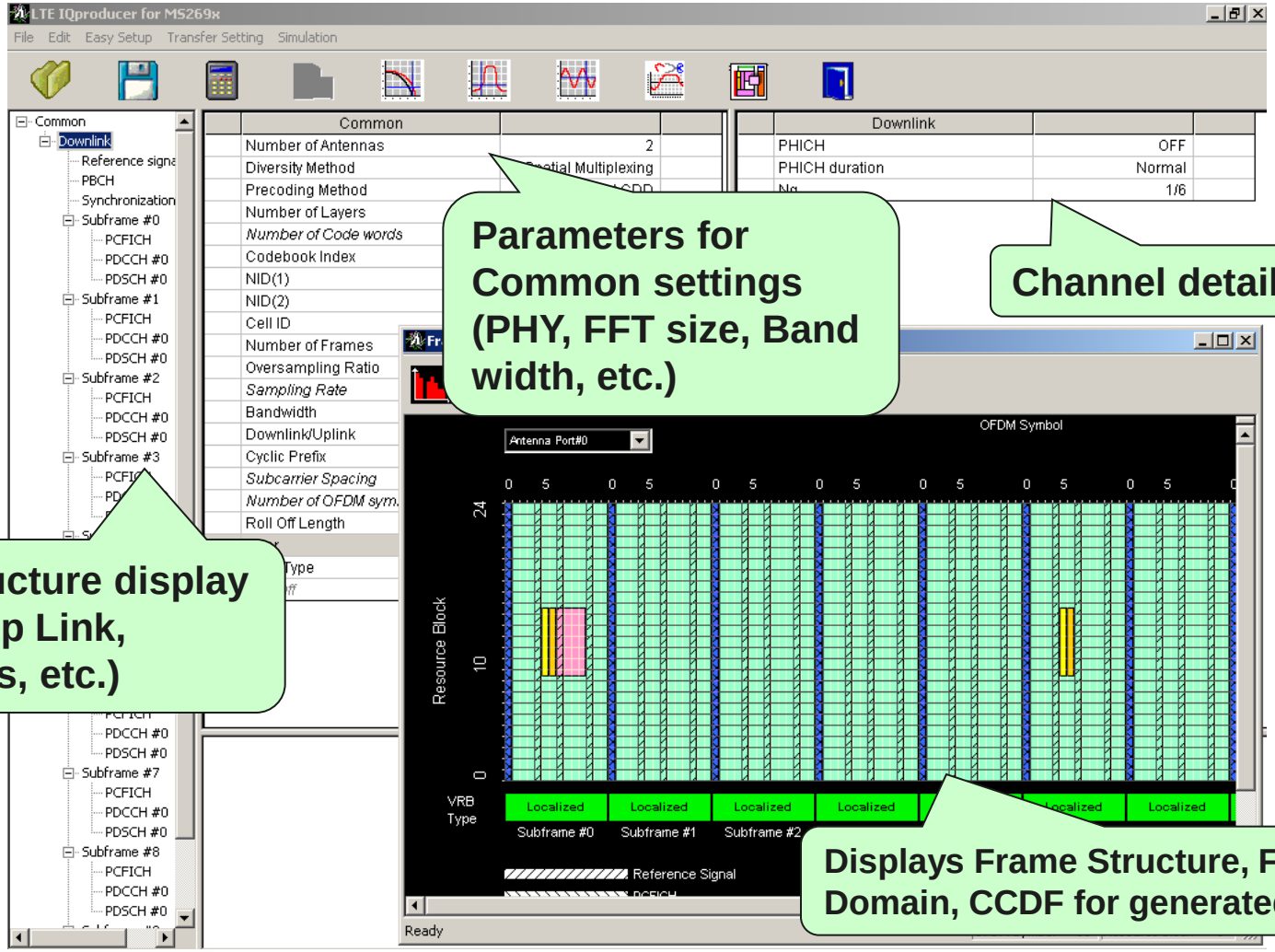
Installing the MX269908A-001* LTE-Advanced FDD option supports output of signals in compliance with the LTE-Advanced FDD standards. *: Requires MX269908A

It runs on both the MS269xA/MS2830A Windows XP OS and on the external PC.



LTE IQproducer – Display Configuration

Excellent operability supports easy waveform generation



Anritsu

Specifications are subject to change without notice.

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