Application Note

Anritsu

MX860803A/MX860903A
cdma Measurement Software

MS8608A/MS8609A
Digital Mobile Radio Transmitter Tester

MX860803A/MX860903A
cdma Measurement Software
Application Note

April 2006
Anritsu Corporation
Version 1.0

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1. CDMA2000 1x Standard

1.1 Related standards

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1.1 Related standards

3GPP2 C.S0002
Physical Layer Standard for cdma2000 Spread Spectrum Systems

3GPP2 C.S0010
Recommended Minimum Performance Standards for cdma2000
Spread Spectrum *Base Stations*

3GPP2 C.S0011
Recommended Minimum Performance Standards for cdma2000
Spread Spectrum *Mobile Stations*

3GPP2 Homepage
http://www.3gpp2.org/Public_html/specs/index.cfm
Anyone can download

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1.2 Frequencies and channels

Class 0: 800 MHz Band
Class 1: 1900 MHz Band
Class 2: TACS Band
Class 3: JTACS Band
Class 4: Korean PCS Band
Class 5: 450 MHz Band
Class 6: 2 GHz Band
Class 7: 700 MHz Band
Class 8: 1800 MHz Band
Class 9: 900 MHz Band
Class 10: Secondary 800 MHz Band
Class 11: 400 MHz European PAMR Band
Class 12: 800 MHz PAMR Band

3GPP2 C.S0002

1.2 Frequencies and channels

Table 2.1.1.1.1-1. Band Class 0 System Frequency Correspondence

System Designator	Band Subclass	Transmit Frequency Band (MHz)	
		Mobile Station	Base Station
A	0	824.025–835.005 844.995–846.495	869.025–880.005 889.995–891.495
A	1	824.025–835.005 844.995–848.985	869.025–880.005 889.995–893.985
B	0	835.005–844.995 846.495–848.985	880.005–889.995 891.495–893.985
B	1	835.005–844.995	880.005–889.995

e.g Band Class 0

MS   BS

45 MHz

825.03 MHz   870.03 MHz
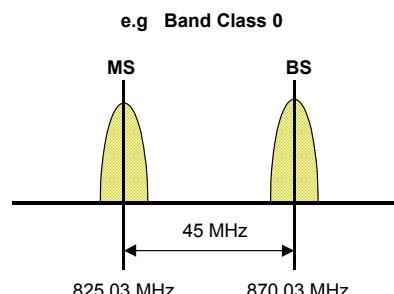
Table 2.1.1.1.1-2. CDMA Channel Number to CDMA Frequency Assignment Correspondence for Band Class 0

Transmitter	CDMA Channel Number	Center Frequency for CDMA Channel (MHz)
Mobile Station	$1 \leq N \leq 799$	$0.030\,N + 825.000$
Mobile Station	$991 \leq N \leq 1023$	$0.030\,(N - 1023) + 825.000$
Base Station	$1 \leq N \leq 799$	$0.030\,N + 870.000$
Base Station	$991 \leq N \leq 1023$	$0.030\,(N - 1023) + 870.000$

3GPP2 C.S0002

1.3 Radio configuration (RC)

Each RC has a different data rate, error correction, and modulation method.

Forward Link

RC	SR	Data Rate	Error Correction
1	1x	1200 - 9600	1/2
2	1x	1800 - 14400	1/2
3	1x	1500 - 153600	1/4
4	1x	1500 - 307200	1/2
5	1x	1800 - 230400	1/4
6	3x	1500 - 307200	1/6
7	3x	1500 - 614400	1/3
8	3x	1800 - 460800	1/4 or 1/3
9	3x	1800 - 1036800	1/2 or 1/3

Reverse Link

RC	SR	Data Rate	Error Correction
1	1x	1200 - 9600	1/3
2	1x	1800 - 14400	1/2
3	1x	1200 - 307200	1/4 or 1/2
4	1x	1800 - 230400	1/4
5	3x	1200 - 614400	1/3
6	3x	1800 - 1036800	1/2

IS-95

1x

3x

The MX860x03A can measure
IS-95 and 1x.
3x is not being used now.

1.4 BTS Measurement items

C.S0010	Transmission Characteristics	MS8608/09A
4.1.2	Frequency tolerance	Yes
4.2.1.1	Pilot timing tolerance	Yes
4.2.1.2	Pilot channel to code channel time tolerance	
4.2.1.3	Pilot channel to code channel phase tolerance	
4.2.2	Waveform quality	Yes
4.2.3	Forward power control sub-channel	Yes
4.3.1	Total power	Yes
4.3.2	Pilot power	Yes
4.3.3	Code domain power	Yes
4.4.1	Conducted spurious emissions	Yes
4.4.2	Radiated spurious emissions	Yes
4.4.3	Inter-base station transmission intermodulation	
4.4.4	Occupied bandwidth	Yes

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2. Connections

2.1 Connection to signal generator

2.2 Connection to base station

2.1 Connection to signal generator

MG3700A

MS8608A

CDMA2000 1x Waveform Pattern:

FWD: FWD_RC1-2_9channel
        FWD_RC3-5_9channel
RVS: RVS_RC1_FCH
        RVS_RC3_FCH

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2.2 Connection to base station

Antenna port

Need ATT 30 dB

MS8608A

ATT

e.g. +43 dBm

BS

High Power Input Max. +40 dBm
Low Power Input Max. +20 dBm

MS8609A

Input Max. +20 dBm

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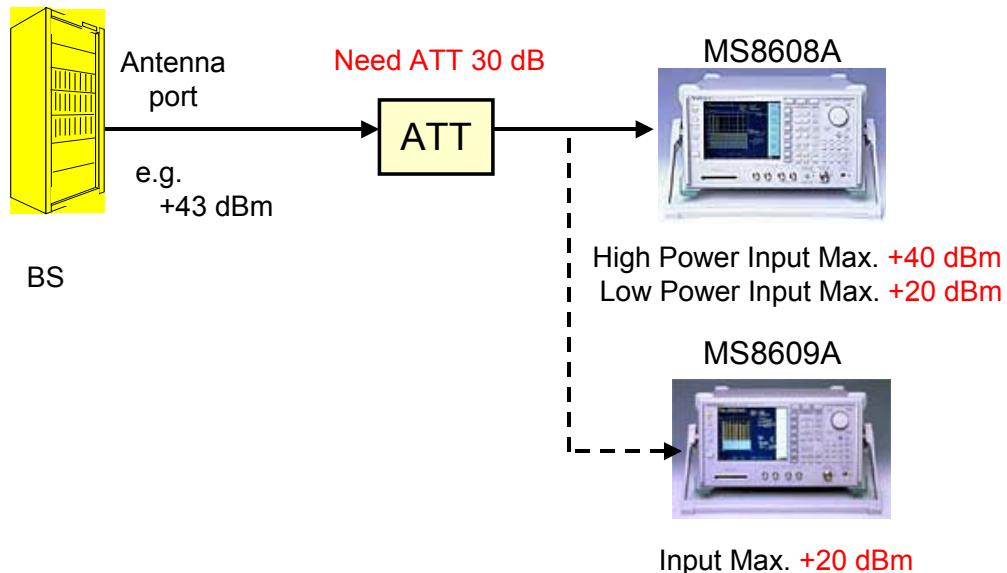
3. BTS Tx Characteristics test

3.1 Frequency tolerance (4.1.2*)
3.2 Pilot timing tolerance (4.2.1.1)
3.3 Waveform quality (4.2.2)
3.4 Total power (4.3.1)
3.5 Pilot power (4.3.2)
3.6 Code domain power (4.3.3)
3.7 Conducted spurious emissions (4.4.1)
3.8 Occupied bandwidth (4.4.4)

*The number in parentheses means the standard chapter.

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MX860x03A Settings

Setup Common Parameter Screen

```
MS8609A    2006/03/23  10:37:47
<< Setup Common Parameter (cdma) >>

  Input
    Terminal                      : [RF       ]
    Reference Level & Offset      : [  -8.00dBm] [   0.00dB]

  Frequency
    Channel & Frequency           : [ 1092CH] = [  887.650000MHz]
    Channel Spacing               : [    1.250000MHz]

  Signal
    Measuring Object              : [Forward(RC1-2)] (Continuous)
    Filter                        : [Filter+EQ]

  Trigger                         : [Free Run    ]




                                    Pre Ampl   : Off
  Ch   :        1092CH   Level  :   -8.00dBm  Power Cal  : Off
  Freq :  887.650000MHz  Offset :    0.00dB   Correction : Off
```

1. Set Channel & Frequency.

2. Select Measuring Object.
   Forward (RC1-2): IS-95
   Forward (RC3-5): 1x
   Reverse (RC1-2): IS-95
   Reverse (RC3-4): 1x
   QPSK
   OQPSK

3. Select Filter.
   Filter+EQ: Forward
   Filter: Reverse
   No Filter

4. Free Run set as Trigger

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MX860x03A Settings

Press the [More] key.

Screen 1 ⟷ **Screen 2**

F1		F1
F2 Modulation Analysis	**Modulation Analysis**	F2
F3 RF Power	**RF Power**	F3
F4 Occupied Bandwidth	**Occupied Bandwidth**	F4
F5 Spurious close to the Carrier	**Spurious Close to Carrier**	F5
F6 Spurious Emission	**Spurious Emissions**	F6 Power Meter **Power Meter**

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3.1 Frequency tolerance (4.1.2)

The frequency tolerance test measures the frequency of the modulated signal.

```
MS8609A   2006/03/28  11:31:46
<< Modulation Analysis (cdma) >>      Measure : Single
                                      Storage : Normal
                                      Trace   : Non
Frequency
   Carrier Frequency     :    887.649 981 3 MHz
   Carrier Frequency Error :          -18.7 Hz     -0.021 ppm

Waveform Quality
   ρ multi-code          :      0.99992

Modulation
   RMS & Peak EVM        :      0.88 % (rms)      2.23 %
   Phase Error           :      0.36 deg. (rms)
   Magnitude Error       :      0.61 % (rms)
   Origin Offset(CFT)    :    -62.37 dB

Code Domain                   Total       Average       Max
   Active CH ( 9CH)      :     0.00 dB     -9.54 dB    -6.97 dB

   Inactive CH          :   -41.84 dB    -62.25 dB   -57.46 dB

   Tx Power & Pilot,Sync CH:  -0.48 dBm    -6.97 dB   -13.28 dB

Analy Start:   0PNchip  Analy Length: 640PNchip
                                    Pre Ampl  : Off
Ch  :        1092CH  Level  : -10.00dBm  Power Cal : Off
Freq :   887.650000MHz  Offset :    0.00dB  Correction : Off
```

Modulation Analysis
- Trace Format #
- Storage Mode *
- Scale Mode *
- Analysis Mode *
- Adjust Range
- Back Screen →
- 1 2 3

Standard

Frequency tolerance ±0.05 ppm

- Press the [F2] Modulation Analysis key at the Setup Common Parameter screen 1.
- Press the [F1] Trace Format key and select Non.
- Press the [F5] Adjust Range key.

3.2 Pilot Timing (4.2.1.1)

Use External Trigger.

- Press External trigger at the Setup Common Parameter screen.
- Press the [F2] Modulation Analysis key at the Setup Common Parameter screen 1.
- Press the [F1] Trace Format key and select Non.
- Press the [F5] Adjust Range key.

Standard

Time Reference: 10 µs max.

```
MS8609A   2002/11/18  18:21:27                    Setup
<< Setup Common Parameter (cdma) >>               Parameter

  Input
    Terminal                  : [RF        ]
    Reference Level & Offset   : [ -6.00dBm] [   0.00dB]
  Frequency
    Channel & Frequency       : [ 1092CH] = [ 935.200000MHz]
    Channel Spacing           : [    1.250000MHz]
  Signal
    Measuring Object          : [Forward(RC1-2)] (Continuous)
    Filter                    : [Filter+EQ]
  Trigger                     : [External    ]
    Trigger Edge              : [Rise]
    Trigger Delay             : [    0.0PNchip]
    PN Synchronization        : [PN Search  ]
    PN Offset                 : [  0] * 64 PNchip




Ch  :        1092CH  Level  :  -6.00dBm  Power Cal : On
Freq :   935.200000MHz  Offset :    0.00dB  Correction : Off
```
- Modulation Analysis →
- RF Power →
- Occupied Bandwidth →
- Spurious close to the Carrier →
- Spurious Emission →
- 1 2

```
MS8609A   2002/11/18  18:21:34                    Modulation
<< Modulation Analysis (cdma) >>      Measure : Single   Analysis
                                      Storage : Normal
                                      Trace   : Non
Frequency
   Carrier Frequency     : ----------------- MHz
   Carrier Frequency Error : ------------ Hz--------- ppm

Waveform Quality
   ρ multi-code          : ---------
   τ(Timing Error)       : ---- * 64PNchip --------- µS

Modulation
   RMS & Peak EVM        : ------- % (rms)     ------- %
   Phase Error           : ------- deg. (rms)
   Magnitude Error       : ------- % (rms)
   Origin Offset(CFT)    : ------- dB

Code Domain                   Total       Average       Max
   Active CH (----CH)    : ------ dB    ------ dB    ------ dB

   Inactive CH          : ------ dB    ------ dB    ------ dB

   Tx Power & Pilot,Sync CH:------- dBa  ------ dB    ------ dB

Analy Start:   0PNchip  Analy Length: 640PNchip

Ch  :        1092CH  Level  :  -6.00dBm  Power Cal : On
Freq :   935.200000MHz  Offset :    0.00dB  Correction : Off
```
- Trace Format #
- Storage Mode *
- Scale Mode *
- Analysis Mode *
- Adjust Range
- Back Screen →
- 1 2 3

3.3 Waveform quality (4.2.2)

The waveform quality test measures waveform power between the actual waveform and ideal waveform.

```
MS8609A    2006/03/28  11:31:46                          Modulation
<< Modulation Analysis (cdma) >>     Measure  : Single    Analysis
                                     Storage  : Normal          #
                                     Trace    : Non
   Frequency                                               Trace
      Carrier Frequency     :      887.649 981 3 MHz       Format
      Carrier Frequency Error :        -18.7 Hz      -0.021 ppm      *
   Waveform Quality
      ρ multi-code          :      0.99992                Storage
                                                          Mode
   Modulation                                                  *
      RMS & Peak EVM        :      0.88 % (rms)      2.23 %   Scale
      Phase Error           :      0.36 deg. (rms)            Mode
      Magnitude Error       :      0.61 % (rms)                   *
      Origin Offset(CFT)    :     -62.37 dB
                                                          Analysis
   Code Domain            Total       Average      Max     Mode
      Active CH ( 9CH)    :   0.00 dB    -9.54 dB   -6.97 dB

      Inactive CH         : -41.84 dB   -62.25 dB  -57.46 dB   Adjust
                                                              Range

      Tx Power & Pilot.Sync CH:  -0.48 dBm   -6.97 dB  -13.28 dB      →
   Analy Start:    OPNchip  Analy Length: 640PNchip         Back
                                      Pre Ampl  : Off       Screen
   Ch  :      1092CH  Level  :  -10.00dBm  Power Cal  : Off
   Freq :  887.650000MHz  Offset :   0.00dB  Correction : Off   1 2 3
```

Standard

Pilot waveform quality
$\rho > 0.912$

- Press the [F2] Modulation Analysis key at the Setup Common Parameter screen 1.
- Press the [F1] Trace Format key and select Non.
- Press the [F5] Adjust Range key.

3.4 Total power (4.3.1)

The carrier is measured using the power meter.

```
MS8609A    2006/03/28  11:33:30                          Power Meter
<< Power Meter (cdma) >>          Measure  : Single
                                                          Set
                                                          Relative


      POWER       :     -0.40 dBm
                                                          Range Up
                  --------- dB

                    0.913 mW                              Range Down


      (Range :    0dBm )                                  Adjust
                                                          Range


                                                          Zero Set

                                                               →
                                                          Back
                                                          Screen
   Ch  :      1092CH  Level  :  -10.00dBm
   Freq :  887.650000MHz  Offset :   0.00dB  Correction : Off   1
```
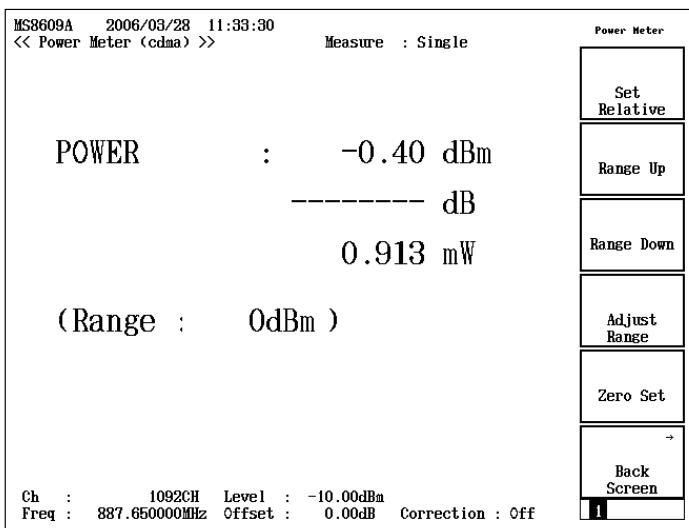
Standard

RF Power Output
+2 dB to -4 dB

Calibration method
- Press the [F6] Power Meter key at the Setup Common Parameter screen 2.
- Disconnect the input cable.
- Press the [F5] Zero set key.
- Connect the input cable.
- Press the [F4] Adjust Range key.

3.4 Total power (4.3.1)

RF Power is used for multi-carriers.
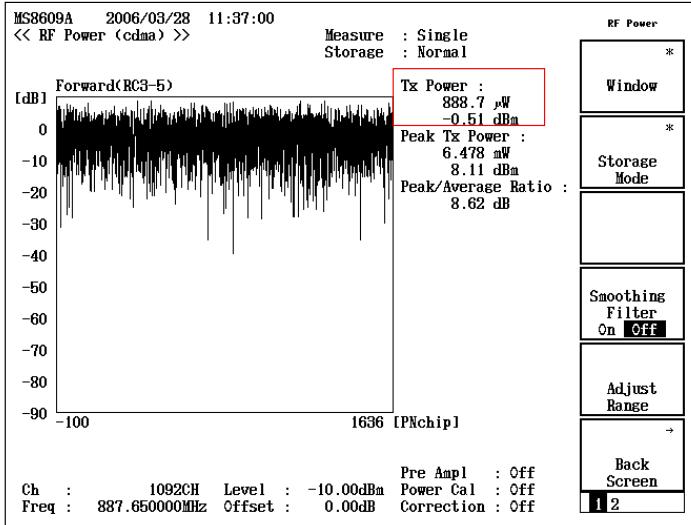
Standard

RF Power Output
+2 dB to -4 dB

- Press the [F3] RF Power key at the Setup Common Parameter screen 1.
- Press the [F1] Window key.
- Press the [F1] Slot key.
- Press the [F6] Return key.
- Press the [F5] Adjust Range key.

3.5 Pilot power (4.3.2)

The pilot power test measures the ratio of the pilot power to total power. There are two code domain screens: RC1-2 using Walsh code, and RC3-5 using OVSF code. The following are TEST MODEL signals.

Table 6.5.2-1. Radio Configuration 1 through 9 Base Station Test Model, Nominal for Main Path

Channel Type	Number of Channels	Fraction of Power (linear)	Fraction of Power (dB)	Comments
Forward Pilot	1	0.2000	-7.0	Code channel W_0^{64}
Sync	1	0.0471	-13.3	Code channel W_{32}^{64}; always 1/8 rate
Paging	1	0.1882	-7.3	Code channel W_1^{64}; full rate only
Traffic	M	0.5647/M	-2.48 - 10 log(M)	Variable code channel assignments; full rate only

For the Total Power (4.3.1) and Conducted Spurious Emissions tests (4.4.1), M shall be the lesser of 37 or the maximum number of Fundamental Traffic Channels supported by the base station for the radio configuration under test.

For all other tests, M shall be 6.

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3.5 Pilot power IS-95 (4.3.2)

When Measuring Object is RC1-2
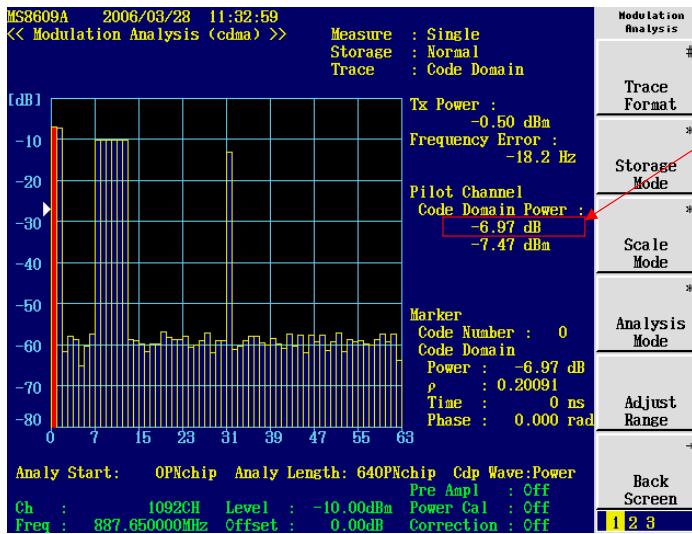
Standard

Within ±0.5 dB

e.g. Test Model
  -7 dBm ±0.5 dB
  = -6.5 to -7.5 dB

- Press the [F2] Modulation Analysis key at the Setup Common Parameter screen 1.
- Press the [F1] Trace Format key and select Code Domain.
- Press the [F5] Adjust Range key.

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3.5 Pilot power CDMA2000 1x (4.3.2)

When Measuring Object is RC3-5
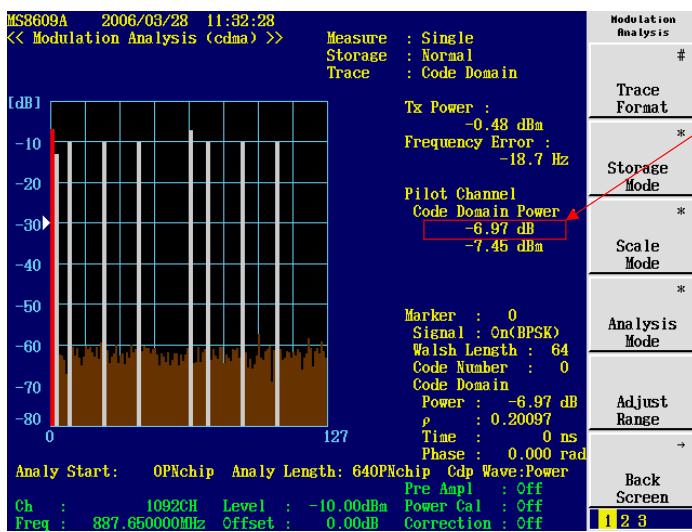
Standard

Within ±0.5dB

e.g. Test Model
  -7 dBm ±0.5 dB
  = -6.5 to -7.5 dB

- Press the [F2] Modulation Analysis key at the Setup Common Parameter screen 1.
- Press the [F1] Trace Format key and select Code Domain.
- Press the [F5] Adjust Range key.

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3.6 Code domain power IS-95 (4.3.3)

The power of inactive channels must be less than the standard.

When Measuring Object is RC1-2

Standard

>27 dB

Inactive channels

- Press the [F2] Modulation Analysis key at the Setup Common Parameter screen 1.
- Press the [F1] Trace Format key and select Code Domain.
- Press the [F5] Adjust Range key.
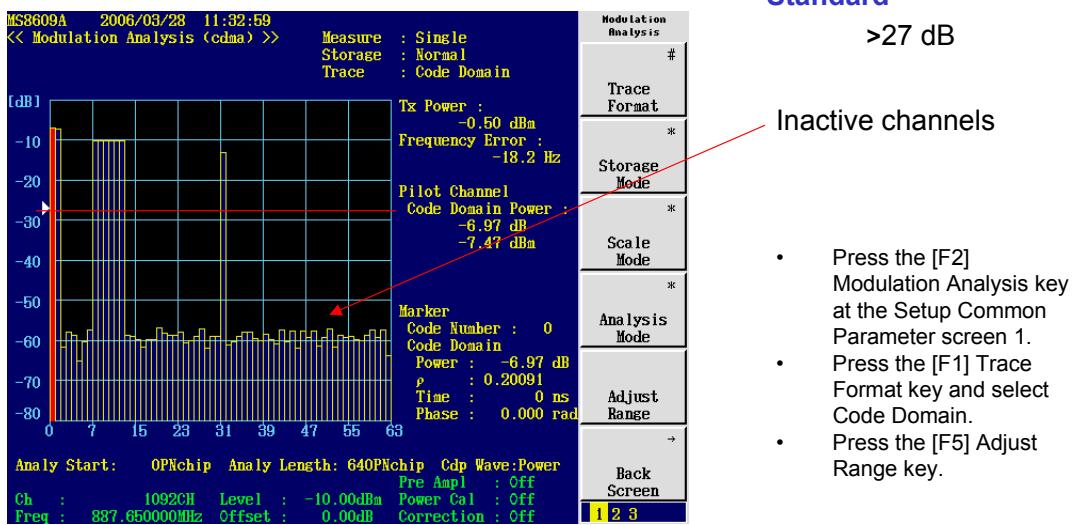
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3.6 Code domain power CDMA2000 1x (4.3.3)

The power of inactive channels must be less than the standard.

When Measuring Object is RC3-5

Standard

>31.5 dB

Inactive channels

- Press the [F2] Modulation Analysis key at the Setup Common Parameter screen 1.
- Press the [F1] Trace Format key and select Code Domain.
- Press the [F5] Adjust Range key.
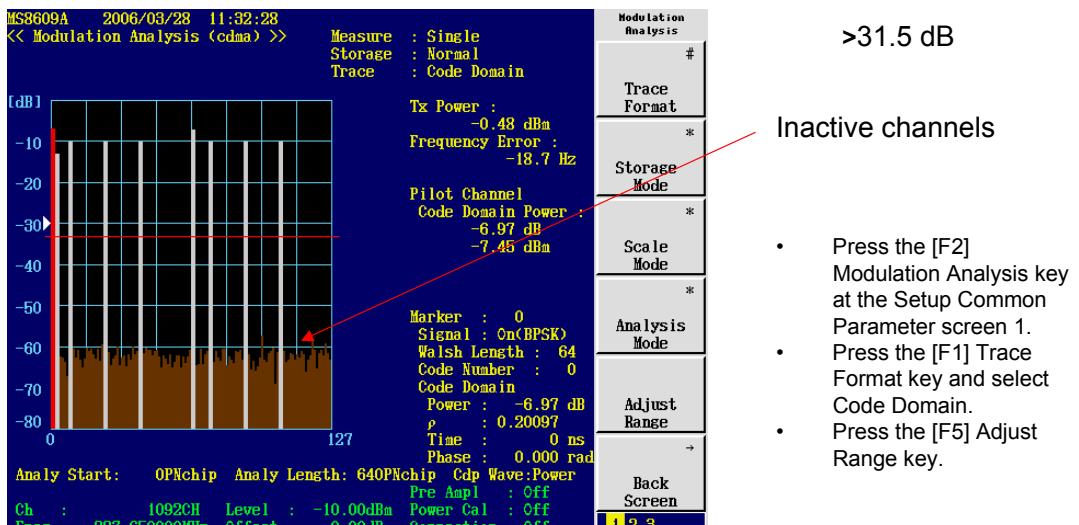
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3.7 Conducted spurious emissions (4.4.1)

The spurious emission test measures emissions at frequencies that are outside the assigned CDMA channel.
The standard is decided by each class.

e.g. Band Class
    0, 2, 3, 5, 7, 9 and 10

Table 4.4.1.3-1. Band Class 0, 2, 3, 5, 7, 9, and 10 Transmitter Spurious Emission Limits

For |Δf| Within the Range	Applies to Multiple Carriers	Emission Limit
750 kHz to 1.98 MHz	No	-45 dBc / 30 kHz
1.98 MHz to 4.00 MHz	No	-60 dBc / 30 kHz; Pout ≥ 33 dBm -27 dBm / 30 kHz; 28 dBm ≤ Pout < 33 dBm -55 dBc / 30 kHz; Pout < 28 dBm
3.25 MHz to 4.00 MHz (Band Class 7 only)	Yes	-46 dBm / 6.25 kHz
> 4.00 MHz (ITU Category A only)	Yes	-13 dBm / 1 kHz; 9 kHz < f < 150 kHz -13 dBm / 10 kHz; 150 kHz < f < 30 MHz -13 dBm/100 kHz; 30 MHz < f < 1 GHz -13 dBm / 1 MHz; 1 GHz < f < 5 GHz
> 4.00 MHz (ITU Category B only)	Yes	-36 dBm / 1 kHz; 9 kHz < f < 150 kHz -36 dBm / 10 kHz; 150 kHz < f < 30 MHz -30 dBm / 1 MHz; 1 GHz < f < 12.5 GHz
4.00 to 6.40 MHz (ITU Category B only)	Yes	-36 dBm / 1 kHz 30 MHz < f < 1 GHz
6.40 to 16 MHz (ITU Category B only)	Yes	-36 dBm / 10 kHz 30 MHz < f < 1 GHz
> 16 MHz (ITU Category B only)	Yes	-36 dBm / 100 kHz 30 MHz < f < 1 GHz

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3.7 Conducted spurious emissions (4.4.1)

e.g. Band Class
    1, 4, 6 and 8

Table 4.4.1.3-2. Band Class 1, 4, 6, and 8 Transmitter Spurious Emission Limits

| For |Δf| Within the Range	Applies to Multiple Carriers	Emission Limit
885 kHz to 1.25 MHz	No	-45 dBc / 30 kHz
1.25 to 1.98 MHz	No	More stringent of -45 dBc / 30 kHz or -9 dBm / 30 kHz
1.25 to 2.25 MHz (MC tests only)	Yes	-9 dBm / 30 kHz
1.25 to 1.45 MHz (Band Class 6 only)	Yes	-13 dBm / 30 kHz
1.45 to 2.25 MHz (Band Class 6 only)	Yes	-[13 + 17 × (Δf − 1.45 MHz)] dBm / 30 kHz
1.98 MHz to 2.25 MHz	No	-55 dBc / 30 kHz; Pout ≥ 33 dBm -22 dBm / 30 kHz; 28 dBm ≤ Pout < 33 dBm -50 dBc / 30 kHz; Pout < 28 dBm
2.25 MHz to 4.00 MHz	Yes	-13 dBm / 1 MHz
> 4.00 MHz (ITU Category A only)	Yes	-13 dBm / 1 kHz; 9 kHz < f < 150 kHz -13 dBm / 10 kHz; 150 kHz < f < 30 MHz -13 dBm/100 kHz; 30 MHz < f < 1 GHz -13 dBm / 1 MHz; 1 GHz < f < 5 GHz
> 4.00 MHz (ITU Category B only)	Yes	-36 dBm / 1 kHz; 9 kHz < f < 150 kHz -36 dBm / 10 kHz; 150 kHz < f < 30 MHz -36 dBm/100 kHz; 30 MHz < f < 1 GHz
4.00 to 16.0 MHz (ITU Category B only)	Yes	-30 dBm / 30 kHz; 1 GHz < f < 12.5 GHz
16.0 to 19.2 MHz (ITU Category B only)	Yes	-30 dBm / 300 kHz; 1 GHz < f < 12.5 GHz
> 19.2 MHz (ITU Category B only)	Yes	-30 dBm / 1 MHz; 1 GHz < f < 12.5 GHz

3GPP2 C.S0010

3.7 Conducted spurious emissions (4.4.1)

Class 0, 2, 3, 5, 7, 9 and 10
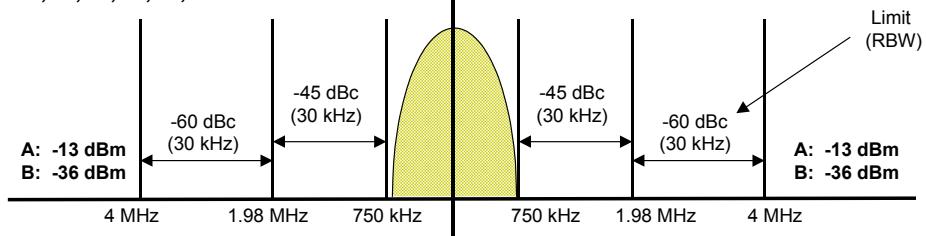
Limit (RBW)

-60 dBc (30 kHz)   -45 dBc (30 kHz)   -45 dBc (30 kHz)   -60 dBc (30 kHz)

A: -13 dBm
B: -36 dBm

A: -13 dBm
B: -36 dBm

4 MHz   1.98 MHz   750 kHz   750 kHz   1.98 MHz   4 MHz

Class 1, 4, 6 and 8

Limit (RBW)

A: -13 dBm   -13 dBm   -55 dBc (30 kHz)   -45 dBc (30 kHz)   -45 dBc (30 kHz)   -45 dBc (30 kHz)   -45 dBc (30 kHz)   -55 dBc (30 kHz)   -13 dBm   A: -13 dBm
B: -36 dBm   (1 MHz)   (1 MHz)   B: -36 dBm

4 MHz 2.25 MHz   1.98 MHz 1.25 MHz 885 kHz   885 kHz 1.25 MHz   1.98 MHz 2.25 MHz 4 MHz

---
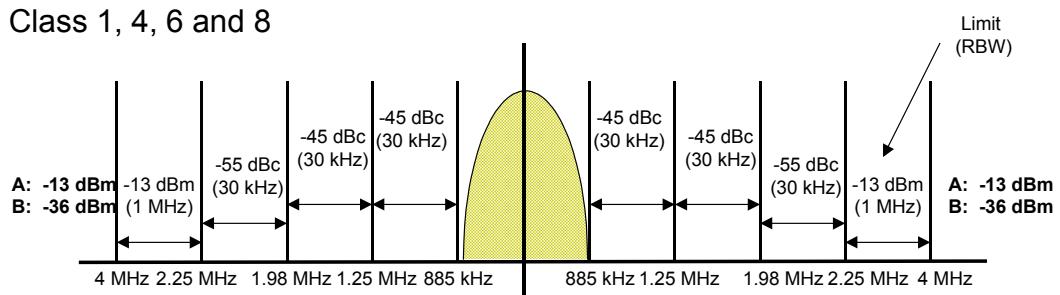
3.7 Conducted spurious emission (4.4.1)

Spurious Close Carrier Screen
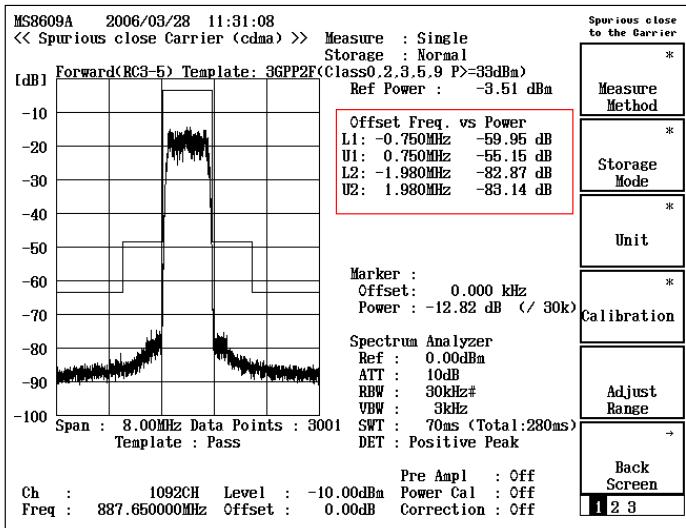
- Press the [F5] Spurious Close to Carrier key at the Setup Common Parameter screen 1.
- Press the [F1] Measure Method key.
- Press the [F2] or [F3] Band Class key.
- Press the [F6] Return key.
- Press the [F5] Adjust Range key.

3.8 Occupied bandwidth (4.4.4)

The occupied bandwidth test measures the power in 99% of the modulated carrier.

```
MS8609A   2006/03/28  11:31:24          Measure  : Single        Occupied
<< Occupied Bandwidth (cdma) >>         Storage  : Normal        Bandwidth
                                        Method   : FFT                      *
[dB]                                                             Measure
 -10                                    OCC BW (99%) :   1.27 MHz  Method
 -20                                                                        *
 -30                                    Upper Limit :    0.63 MHz Storage
 -40                                                              Mode
 -50                                    Lower Limit :   -0.63 MHz
 -60                                    Center (Upper+Lower)/2 :
 -70                                                  887.650 MHz           *
 -80                                                             Calibration
 -90
-100 Span :  3.91MHz                                             Adjust
                                                                 Range
                                        Pre Ampl   : Off                    →
                                                                 Back
 Ch  :      1092CH   Level  : -10.00dBm Power Cal  : Off         Screen
 Freq :  887.650000MHz Offset :   0.00dB Correction : Off         1 2
```

Standard

Bandwidth <1.48 MHz

- Press the [F4] Occupied
  Bandwidth key at the
  Setup Common
  Parameter screen 1.
- Press the [F5] Adjust
  Range key.

Appendix

1. Other Tx characteristics

(1) Pilot channel to code channel time tolerance (4.2.1.2)
(2) Pilot channel to code channel phase tolerance (4.2.1.3)
(3) Forward power control sub-channel (4.2.3)
(4) Radiated spurious emissions (4.4.2)
(5) Inter-base station transmission intermodulation (4.4.3)

- MG3700A Settings

(1) Pilot channel to code channel time tolerance (4.2.1.2)

Pilot channel to code channel time tolerance is the permissible error in timing between the radiated pilot channel and the other code channels transmitted out of the RF output port containing the same pilot channel within one Forward CDMA Channel.

Standard   **Time Reference: $< \pm 50$ ns**

(2) Pilot channel to code channel phase tolerance (4.2.1.3)

Pilot Channel to code channel phase tolerance is the permissible error in RF phase between the radiated pilot channel and the other channels within one Forward CDMA Channel.

Standard   **Phase Reference: <0.15 radians**

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(3) Forward power control sub-channel (4.2.3)
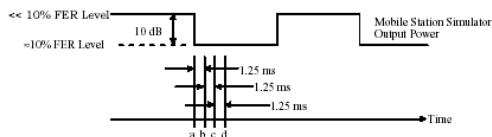
Figure 4.2.3.2-1. Power Up Command Measurement Interval (Part 1 of 2)
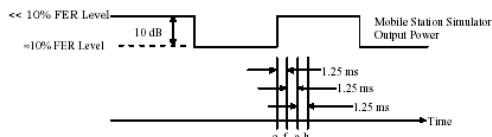
Figure 4.2.3.2-1. Power Down Command Measurement Interval (Part 2 of 2)
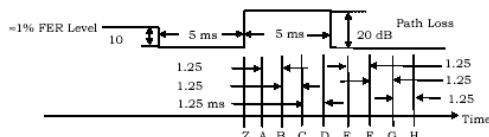
Figure 4.2.3.2-2. Path Loss Increase and Decrease Responses and the Test Points for the Alternative Test Procedure

The forward (downlink) power control sub-channel test checks that the power control bits have the correct sense, position, delay, and amplitude.
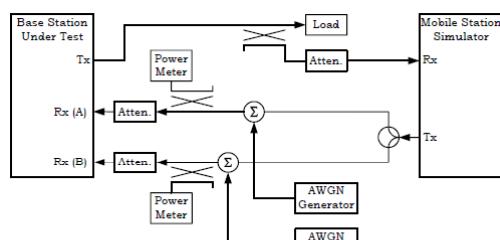
Figure 6.5.1-1. Functional Setup for Base Station Additive White Gaussian Noise Demodulation Tests and Sensitivity Tests

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(4) Radiated spurious emissions (4.4.2)

Current region-specific radio regulation rules apply.

(5) Inter-base station transmission intermodulation (4.4.3)

The inter-base station transmitter intermodulation test measures when another base station connects to the antenna connector of the base station.
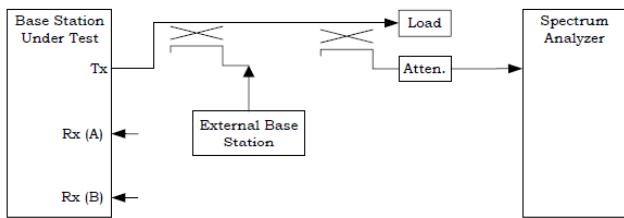

Figure 6.5.1-9. Functional Setup for Inter-Base Station Intermodulation Test

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2. MG3700A Settings

Select CDMA2000 using the [F1] key (HDD → Memory).

Select ALL Load and press the [Set] key.
FWD: FWD_RC1-2_9channel
FWD_RC3-5_9channel
RVS: RVS_RC1_FCH
RVS_RC3_FCH

2. MG3700A Settings

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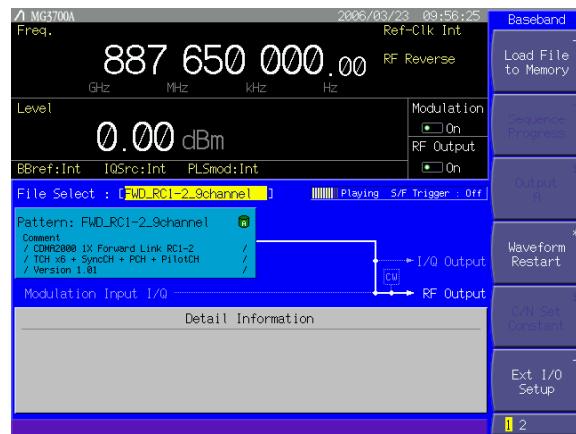
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