

# ***Sync Channel Workaround Test***

*(For Release A)*

*February 11, 2004*

*Version 1.0*

**CDG 85**



CDMA  
DEVELOPMENT  
GROUP

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# 1 Introduction

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## 1.1 Purpose

Two workarounds are described, due to non-compliant IS-95 mobile stations, in the *Sync Channel Workarounds for CDMA2000 Release A* (CDG 78, Ref. 1):

Chapter 2: Network-Based Solution

Chapter 3: Single & Multi-carrier Solution Using Special Mobile Procedures

This document contains test procedures to verify the mobile's compliance with these workarounds.

## 1.2 Scope

This document is targeted toward verifying interoperability of release A mobiles supporting the CDG Sync Channel Workaround based on Chapters 2 and 3 of the *Sync Channel Workarounds for CDMA2000 Release A* CDG document with different infrastructures and carriers who implement the CDG Sync Channel Workaround per Chapters 2 and 3 of that document.

It is assumed throughout this test plan that the target audience of this document is familiar with the Sync Channel Workaround.

## 1.3 Organization

Information in this document is organized as follows:

- Chapter 1 – an introduction
- Chapter 2 – describes the test cases for alternating SCH messages
- Chapter 3 – describes the test cases for single carrier deployment
- Chapter 4 – describes test cases for multicarrier deployment

## 1.4 Conventions

The use of “shall” in this document identifies a requirement to be followed strictly without deviation. The use of “should” indicates that one of several possibilities is recommended as particularly suitable.

## 1.5 References

Reference documents, which may include, standards, and resource documents, are listed in Table 1.5-1.

**Table 1.5-1 Reference documents and standards**

Ref.	Document	
<b>Standards</b>		
1	<i>Sync Channel Workarounds for CDMA2000 Release A</i>	CDG 78 Version 1.0
2	<i>Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems Addendum 2</i>	TIA/EIA/IS-2000.5-A-2

## 1.6 Acronyms

The following terms are used throughout this document:

A41SPM	ANSI-41 system parameters message
APM	Access parameters message
BCCH	Broadcast control channel
CCLM	CDMA channel list message
EAPM	Enhanced access parameters message
ECCLM	Extended CDMA channel list message
EGSRDM	Extended Global Service Redirection Message
ENLM	Extended neighbor list message
ESPM	Extended system parameters message
F-CCCH	Forward common control channel
F-PCH	Forward paging channel
F-SYNC	Forward sync channel
GPM	General page message
MCRRPM	MC-RR parameters message
MSM	Mobile station modem
NLM	Neighbor list message
R-EACH	Reverse enhanced access channel
SPM	System parameters message
UNLM	Universal neighbor list message
UPM	Universal page message

## 2 Single Carrier with Alternating SCHM Workaround

### 2.1 Alternating Sync Channel Message with the Extended Global Service Redirection Message

#### 2.1.1 Definition

This test verifies that the mobile station can attain service after reading the Sync Channel when the messages are alternating between P\_REV 7 and P\_REV 5 *Sync Channel Messages*. This test also verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if a P\_REV 5 *Sync Channel Message* is read before a P\_REV 7 *Sync Channel Message* is read.

#### 2.1.2 Traceability

[1]

2.2 *Single-carrier Approach*

[2]

3.7.2.3.2.27 *Extended Global Service Redirection Message*

#### 2.1.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 2.1.3-1.

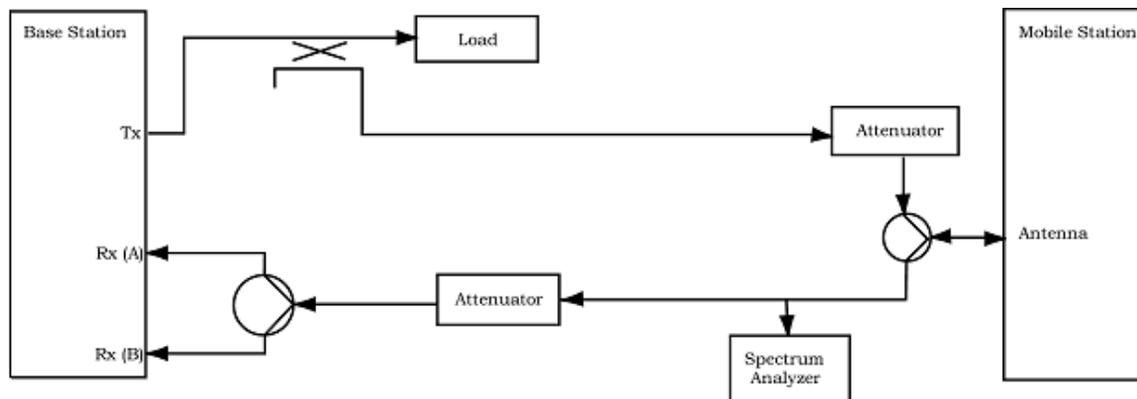


Figure 2.1.3-1 Basic Setup for Air Interface Tests, Single Base Station

- b. Configure the base station to support a single frequency, F1.

- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit a sequence of P\_REV 5 and P\_REV 7 Sync Channel Messages (as described in CDG 78 Section 2.2).
- e. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- f. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- g. Configure the base station to send the EGSRDM with the fields in Table 2.1.3-1:

**Table 2.1.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	253
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- h. Power up the mobile.
- i. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- j. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH.
- k. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- l. Verify user traffic in both directions.
- m. End the call.

#### 2.1.4 Minimum Standard

The mobile shall comply with steps i, k, and l.

## 2.2 Alternating Sync Channel Message with the Extended System Parameters Message

### 2.2.1 Definition

This test verifies that the mobile station can attain service after reading the Sync Channel when the messages are alternating between P\_REV 7 and P\_REV 5 *Sync Channel Messages*. This test also verifies that the mobile station can attain service on the BCCH via the *Extended System Parameters Message* if a P\_REV 5 *Sync Channel Message* is read before a P\_REV 7 *Sync Channel Message* is read.

### 2.2.2 Traceability

[1]

2.2 *Single-carrier Approach*

[2]

3.7.2.3.2.13 *Extended System Parameters Message*

### 2.2.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 2.1.3-1.
- b. Configure the base station to support a single frequency.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit a sequence of P\_REV 5 and P\_REV 7 *Sync Channel Messages* (as described in CDG 78 Section 2.2).
- e. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, NLM, ENLM, and APM.
- f. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- g. Configure the base station to send the ESPM with the fields in Table 2.2.3-1:

**Table 2.2.3-1 *Extended System Parameters Message Settings***

Field	Value
P_REV	7
BCCH_SUPPORTED	1

- h. Power up the mobile.
- i. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- j. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH.
- k. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- l. Verify user traffic in both directions.

- m. End the call.

#### **2.2.4 Minimum Standard**

The mobile shall comply with steps i, k, and l.

## 2.3 Alternating Sync Channel Message with a Legacy Mobile Station

### 2.3.1 Definition

This test verifies that a legacy mobile station (MOB\_P\_REV 6 or under) can attain service after reading the Sync Channel when the messages are alternating between P\_REV 7 and P\_REV 5 *Sync Channel Messages*.

### 2.3.2 Traceability

[1]

*2.2 Single-carrier Approach*

[2]

*3.7.2.3.2.27 Extended Global Service Redirection Message*

### 2.3.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 2.1.3-1.
- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit a sequence of P\_REV 5 and P\_REV 7 Sync Channel Messages (as described in CDG 78 Section 2.2).
- e. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, NLM, ENLM, and APM.
- f. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- g. Configure the base station to send the EGSRDM with the fields in Table 2.3.3-1:

**Table 2.3.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	253
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- h. Power up the mobile.
- i. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 6 (or under).
- j. Originate a call to the mobile station and verify the mobile receives the *General Page Message* on the F-PCH.
- k. Verify the mobile responds with a *Page Response Message* on the R-ACH.
- l. Verify user traffic in both directions.
- m. End the call.

#### **2.3.4 Minimum Standard**

The mobile shall comply with steps i, k, and l.

## 3 Single Carrier with Special Mobile Procedures Workaround

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### 3.1 Single Carrier with Special Mobile Procedures using REDIRECT\_P\_MIN 254 and REDIRECT\_P\_MAX 254

#### 3.1.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 254 and REDIRECT\_P\_MAX is 254. 254 is a special value that a workaround mobile will recognize as an indicator to go directly to the BCCH.

#### 3.1.2 Traceability

[1]

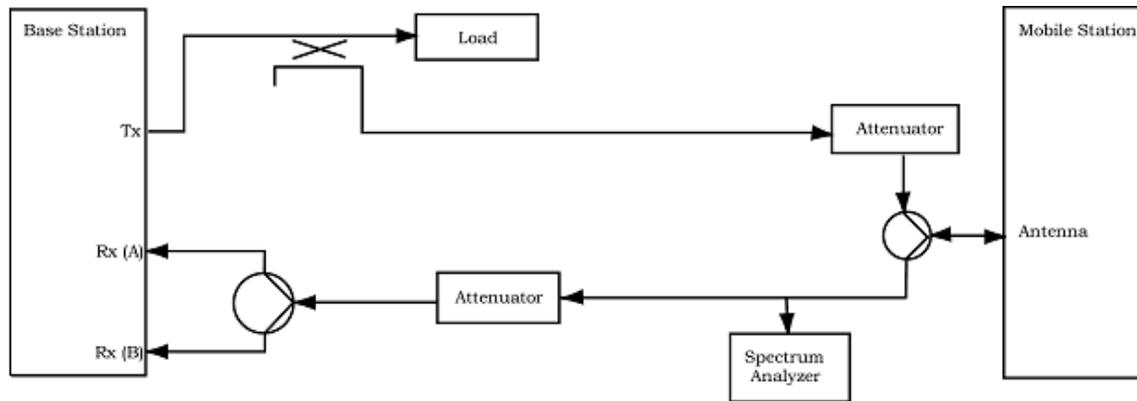
- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

#### 3.1.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 3.1.3-1.



**Figure 3.1.3-1 Basic Setup for Air Interface Tests, Single Base Station**

- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit the BCCH at a rate of 9600 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- e. Configure the base station to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- f. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- h. Configure the base station to send the EGSRDM with the fields in Table 3.1.3-1:

**Table 3.1.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	254
REDIRECT_P_MAX	254
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH.
- l. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- m. Verify user traffic in both directions.
- n. End the call.

#### **3.1.4 Minimum Standard**

The mobile shall comply with steps j, l, and m.

## 3.2 Single Carrier with Special Mobile Procedures using REDIRECT\_P\_MIN 255 and REDIRECT\_P\_MAX 255

### 3.2.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 254 and REDIRECT\_P\_MAX is 255. 255 is a special value that a workaround mobile will recognize as an indicator to go to the BCCH.

### 3.2.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 3.2.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 3.1.3-1.
- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit the BCCH at a rate of 4800 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- e. Configure the base station to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- f. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- h. Configure the base station to send the EGSRDM with the fields in Table 3.2.3-1:

**Table 3.2.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	255
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH.
- l. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- m. Verify user traffic in both directions.
- n. End the call.

### 3.2.4 Minimum Standard

The mobile shall comply with steps j, l, and m.

## 3.3 Single Carrier with Special Mobile Procedures using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 254

### 3.3.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 254. 254 is a special value that a workaround mobile will recognize as an indicator to go directly to the BCCH. Non-workaround mobiles should also be able to attain service on the BCCH.

### 3.3.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 3.3.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 3.1.3-1.
- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit the BCCH at a rate of 9600 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- e. Configure the base station to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- f. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- h. Configure the base station to send the EGSRDM with the fields in Table 3.3.3-1:

**Table 3.3.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	254
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH.
- l. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- m. Verify user traffic in both directions.
- n. End the call.

#### **3.3.4 Minimum Standard**

The mobile shall comply with steps j, l, and m.

## 3.4 Single Carrier with Special Mobile Procedures using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 255

### 3.4.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 255. 255 is a special value that a workaround mobile will recognize as an indicator to go to the BCCH. Non-workaround mobiles should also be able to attain service on the BCCH.

### 3.4.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 3.4.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 3.1.3-1.
- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit the BCCH at a rate of 4800 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- e. Configure the base station to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- f. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- h. Configure the base station to send the EGSRDM with the fields in Table 3.4.3-1:

**Table 3.4.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH.
- l. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- m. Verify user traffic in both directions.
- n. End the call.

#### **3.4.4 Minimum Standard**

The mobile shall comply with steps j, l, and m.

## 3.5 Single Carrier with Special Mobile Procedures using REDIRECT\_P\_MIN 8 and REDIRECT\_P\_MAX 255

### 3.5.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 8 and REDIRECT\_P\_MAX is 255. 255 is a special value that a workaround mobile will recognize as an indicator to go to the BCCH.

### 3.5.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 3.5.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 3.1.3-1.
- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit the BCCH at a rate of 4800 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- e. Configure the base station to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- f. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- h. Configure the base station to send the EGSRDM with the fields in Table 3.5.3-1:

**Table 3.5.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	8
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH.
- l. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- m. Verify user traffic in both directions.
- n. End the call.

#### **3.5.4 Minimum Standard**

The mobile shall comply with steps j, l, and m.

## 3.6 Single Carrier with Special Mobile Procedures using REDIRECT\_P\_MIN 8 and REDIRECT\_P\_MAX 253

### 3.6.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 8 and REDIRECT\_P\_MAX is 253. 253 is not a special value and a workaround mobile should ignore the *Extended Global Service Redirection Message*.

### 3.6.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 3.6.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 3.1.3-1.
- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- e. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- f. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- g. Configure the base station to send the EGSRDM with the fields in Table 3.6.3-1:

**Table 3.6.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	8
REDIRECT_P_MAX	253
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- h. Power up the mobile.
- i. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- j. Originate a call to the mobile station and verify the mobile receives the *General Page Message* on the F-PCH.
- k. Verify the mobile responds with a *Page Response Message* on the R-ACH.
- l. Verify user traffic in both directions.
- m. End the call.

#### **3.6.4 Minimum Standard**

The mobile shall comply with steps i, k, and l.

## 3.7 Single Carrier with a Legacy Mobile Station Using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 254

### 3.7.1 Definition

This test verifies that a legacy mobile station (MOB\_P\_REV 6 or under) can attain service on the F-PCH while ignoring the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 254.

### 3.7.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 3.7.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 3.1.3-1.
- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- e. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- f. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- g. Configure the base station to send the EGSRDM with the fields in Table 3.7.3-1:

**Table 3.7.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	254
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- h. Power up the mobile.
- i. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 6 (or less).
- j. Originate a call to the mobile station and verify the mobile receives the *General Page Message* on the F-PCH of F1.
- k. Verify the mobile responds with a *Page Response Message* on the R-ACH of F1.
- l. Verify user traffic in both directions.
- m. End the call.

#### **3.7.4 Minimum Standard**

The mobile shall comply with steps i, k, and l.

## 3.8 Single Carrier with a Legacy Mobile Station Using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 255

### 3.8.1 Definition

This test verifies that a legacy mobile station (MOB\_P\_REV 6 or under) can attain service on the F-PCH while ignoring the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 255.

### 3.8.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 3.8.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 3.1.3-1.
- b. Configure the base station to support a single frequency, F1.
- c. Configure the base station to support both the paging channel and release A common channels.
- d. Configure the base station to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- e. Configure the base station to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- f. Configure the base station to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM.
- g. Configure the base station to send the EGSRDM with the fields in Table 3.8.3-1:

**Table 3.8.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F1

- h. Power up the mobile.
- i. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 6 (or less).
- j. Originate a call to the mobile station and verify the mobile receives the *General Page Message* on the F-PCH of F1.
- k. Verify the mobile responds with a *Page Response Message* on the R-ACH of F1.
- l. Verify user traffic in both directions.
- m. End the call.

#### **3.8.4 Minimum Standard**

The mobile shall comply with steps i, k, and l.

No text

## 4 Multicarrier with Special Mobile Procedures Workaround

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### 4.1 Multicarrier with Special Mobile Procedures Using REDIRECT\_P\_MIN 254 and REDIRECT\_P\_MAX 254

#### 4.1.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 254 and REDIRECT\_P\_MAX is 254. 254 is a special value that a workaround mobile will recognize as an indicator to go directly to the BCCH.

#### 4.1.2 Traceability

[1]

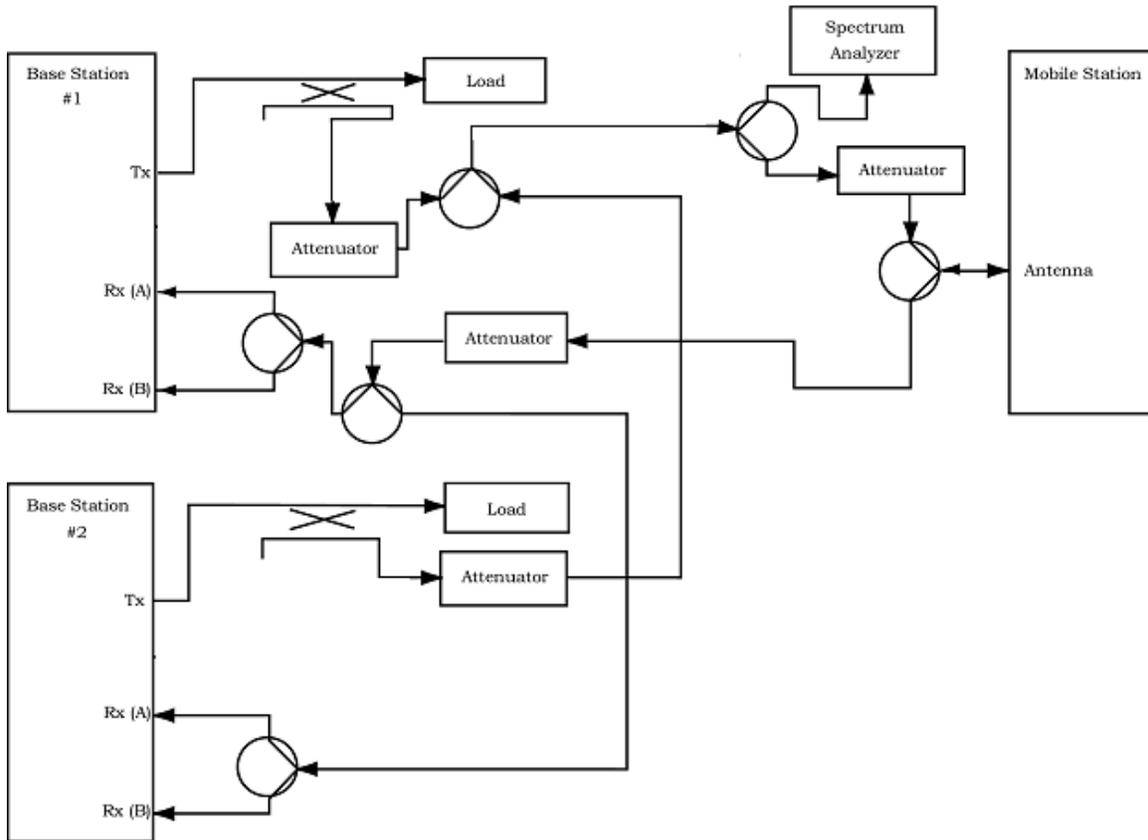
- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

#### 4.1.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.



**Figure 4.1.3-1 Basic Setup for Air Interface Tests, Two Base Stations**

- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH at a rate of 9600 bps, use code rate 1/2, and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM shall not contain F1.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.1.3-1:

**Table 4.1.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	254
REDIRECT_P_MAX	254
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Verify the mobile station tunes to F2 and starts to monitor the BCCH without having to acquire the Sync Channel of F2.
- l. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH of F2.
- m. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- n. Verify user traffic in both directions.
- o. End the call.

#### 4.1.4 Minimum Standard

The mobile shall comply with steps j, k, m, and n.

## 4.2 Multicarrier with Special Mobile Procedures Using REDIRECT\_P\_MIN 255 and REDIRECT\_P\_MAX 255

### 4.2.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 254 and REDIRECT\_P\_MAX is 255. 255 is a special value that a workaround mobile will recognize as an indicator to go to the BCCH.

### 4.2.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.2.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH at a rate of 4800 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM shall not contain F1.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.2.3-1:

**Table 4.2.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	255
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Verify the mobile station tunes to F2 and starts to monitor the BCCH without having to acquire the Sync Channel of F2.
- l. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH of F2.
- m. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- n. Verify user traffic in both directions.
- o. End the call.

#### 4.2.4 Minimum Standard

The mobile shall comply with steps j, k, m, and n.

## 4.3 Multicarrier with Special Mobile Procedures Using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 254

### 4.3.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 254. 254 is a special value that a workaround mobile will recognize as an indicator to go directly to the BCCH. Non-workaround mobiles should also be able to attain service on the BCCH.

### 4.3.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.3.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH at a rate of 9600 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM shall not contain F1.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.3.3-1:

**Table 4.3.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	254
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Verify the mobile station tunes to F2 and starts to monitor the BCCH without having to acquire the Sync Channel of F2.
- l. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH of F2.
- m. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- n. Verify user traffic in both directions.
- o. End the call.

#### 4.3.4 Minimum Standard

The mobile shall comply with steps j, k, m, and n.

## 4.4 Multicarrier with Special Mobile Procedures Using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 255

### 4.4.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 255. 255 is a special value that a workaround mobile will recognize as an indicator to go to the BCCH. Non-workaround mobiles should also be able to attain service on the BCCH.

### 4.4.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.4.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH at a rate of 4800 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM shall not contain F1.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.4.3-1:

**Table 4.4.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Verify the mobile station tunes to F2 and starts to monitor the BCCH without having to acquire the Sync Channel of F2.
- l. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH of F2.
- m. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- n. Verify user traffic in both directions.
- o. End the call.

#### 4.4.4 Minimum Standard

The mobile shall comply with steps j, k, m, and n.

## 4.5 Multicarrier with Special Mobile Procedures Using REDIRECT\_P\_MIN 8 and REDIRECT\_P\_MAX 255

### 4.5.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 8 and REDIRECT\_P\_MAX is 255. 255 is a special value that a workaround mobile will recognize as an indicator to go to the BCCH.

### 4.5.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.5.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH at a rate of 4800 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM shall not contain F1.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.5.3-1:

**Table 4.5.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	8
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Verify the mobile station tunes to F2 and starts to monitor the BCCH without having to acquire the Sync Channel of F2.
- l. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH of F2.
- m. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- n. Verify user traffic in both directions.
- o. End the call.

#### 4.5.4 Minimum Standard

The mobile shall comply with steps j, k, m, and n.

## 4.6 Multicarrier with Special Mobile Procedures Using REDIRECT\_P\_MIN 8 and REDIRECT\_P\_MAX 253

### 4.6.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 8 and REDIRECT\_P\_MAX is 253. 253 is not a special value and a workaround mobile should ignore the *Extended Global Service Redirection Message*.

### 4.6.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.6.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH at a rate of 4800 bps, use code rate ½, and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM shall not contain F1.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.6.3-1:

**Table 4.6.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	8
REDIRECT_P_MAX	253
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- k. Verify the mobile station does not tune to F2 but remains on F1.
- l. Originate a call to the mobile station and verify the mobile receives the *General Page Message* on the F-PCH of F1.
- m. Verify the mobile responds with a *Page Response Message* on the R-ACH.
- n. Verify user traffic in both directions.
- o. End the call.

#### 4.6.4 Minimum Standard

The mobile shall comply with steps j, k, m, and n.

## 4.7 Multicarrier with Special Mobile Procedures and Hashing Using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 254

### 4.7.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 254. 254 is a special value that a workaround mobile will recognize as an indicator to go directly to the BCCH. Non-workaround mobiles should also be able to attain service on the BCCH.

### 4.7.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.7.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2 and F3.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH of F2 and F3 at a rate of 9600 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM. The CCLM/ECCLM shall include F1 only.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM of F2 and F3 shall include F2 and F3 only.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.7.3-1:

**Table 4.7.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	254
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Calculate the appropriate IMSI values and configure the mobile station to be able to hash to F3.
- j. Power up the mobile.
- k. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- l. Verify the mobile station tunes to F2 and starts to monitor the BCCH without having to acquire the Sync Channel of F2.
- m. Verify the mobile station hashes to F3 and begins to monitor the BCCH.
- n. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH of F3.
- o. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- p. Verify user traffic in both directions.
- q. End the call.

#### 4.7.4 Minimum Standard

The mobile shall comply with steps k, l, m, o, and p.

## 4.8 Multicarrier with Special Mobile Procedures and Hashing Using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 255

### 4.8.1 Definition

This test verifies that the mobile station can attain service on the BCCH via the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 254. 254 is a special value that a workaround mobile will recognize as an indicator to go directly to the BCCH. Non-workaround mobiles should also be able to attain service on the BCCH.

### 4.8.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.8.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2 and F3.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH of F2 and F3 at a rate of 4800 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM. The CCLM/ECCLM shall include F1 only.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM of F2 and F3 shall include F2 and F3 only.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.8.3-1:

**Table 4.8.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Calculate the appropriate IMSI values and configure the mobile station to be able to hash to F3.
- j. Power up the mobile.
- k. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 7.
- l. Verify the mobile station tunes to F2 and starts to monitor the BCCH without having to acquire the Sync Channel of F2.
- m. Verify the mobile station hashes to F3 and begins to monitor the BCCH.
- n. Originate a call to the mobile station and verify the mobile receives the *General Page Message* or the *Universal Page Message* on the F-CCCH of F3.
- o. Verify the mobile responds with a *Page Response Message* on the R-EACH.
- p. Verify user traffic in both directions.
- q. End the call.

#### 4.8.4 Minimum Standard

The mobile shall comply with steps k, l, m, o, and p.

## 4.9 Multicarrier with a Legacy Mobile Station Using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 254

### 4.9.1 Definition

This test verifies that a legacy mobile station (MOB\_P\_REV 6 or under) can attain service on the F-PCH while ignoring the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 254.

### 4.9.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.9.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH at a rate of 9600 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM shall not contain F1.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.9.3-1:

**Table 4.9.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	254
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 6 (or less).
- k. Originate a call to the mobile station and verify the mobile receives the *General Page Message* on the F-PCH of F1.
- l. Verify the mobile responds with a *Page Response Message* on the R-ACH of F1.
- m. Verify user traffic in both directions.
- n. End the call.

#### **4.9.4 Minimum Standard**

The mobile shall comply with steps j, l, and m.

## 4.10 Multicarrier with a Legacy Mobile Station Using REDIRECT\_P\_MIN 7 and REDIRECT\_P\_MAX 255

### 4.10.1 Definition

This test verifies that a legacy mobile station (MOB\_P\_REV 6 or under) can attain service on the F-PCH while ignoring the *Extended Global Service Redirection Message* if REDIRECT\_P\_MIN is 7 and REDIRECT\_P\_MAX is 255.

### 4.10.2 Traceability

[1]

- 3.1 Base Station Procedures
- 3.2 Mobile Station Procedures
- 3.3 Implementation Considerations
- 3.4 Mobile Station Tests

[2]

- 3.7.2.3.2.27 *Extended Global Service Redirection Message*

### 4.10.3 Method of Measurement

- a. Connect the base station to the mobile station as shown in Figure 4.1.3-1.
- b. Configure base station #1 to support frequency F1 and base station #2 to support frequency F2.
- c. Configure base station #1 to transmit a *Sync Channel Message* with P\_REV equal to 5 on the Sync Channel and to transmit the overhead messages on the F-PCH with P\_REV set to 7 or greater.
- d. Configure base station #1 to not support release A common channels. Configure base station #2 to support release A common channels.
- e. Configure base station #2 to transmit the BCCH at a rate of 4800 bps, use code rate  $\frac{1}{2}$ , and code channel index of 48.
- f. Configure base station #1 to transmit, among other messages, the following messages on F-PCH: SPM, ESPM, CCLM, ECCLM, EGSRDM, NLM, ENLM, and APM.
- g. Configure base station #2 to transmit the following messages on the BCCH: MCRRPM, UNLM, ECCLM, A41SPM, and EAPM. The ECCLM shall not contain F1.
- h. Configure base station #1 to send the EGSRDM with the fields in Table 4.10.3-1:

**Table 4.10.3-1 Extended Global Service Redirection Message Settings**

Field	Value
REDIRECT_ACCOLC	ACCOLCp
REDIRECT_P_REV_INCL	1
EXCL_P_REV_IND	0
REDIRECT_P_MIN	7
REDIRECT_P_MAX	255
RECORD_TYPE	'00000010'
NUM_CHANS	1
CDMA_CHAN	F2

- i. Power up the mobile.
- j. Verify the mobile attains service and updates its P\_REV\_IN\_USE to 6 (or less).
- k. Originate a call to the mobile station and verify the mobile receives the *General Page Message* on the F-PCH of F1.
- l. Verify the mobile responds with a *Page Response Message* on the R-ACH of F1.
- m. Verify user traffic in both directions.
- n. End the call.

**4.10.4 Minimum Standard**

The mobile shall comply with steps j, l, and m.