

# PRODUCT INTRODUCTION

**for MG3681A**

**MX368041A/B**

W-CDMA Software

**MX368041A/B-10**

3GPP Release 5 Signal Pattern

**MX368041A/B-11**

HSDPA Signal Pattern

Update News

ANRITSU CORPORATION

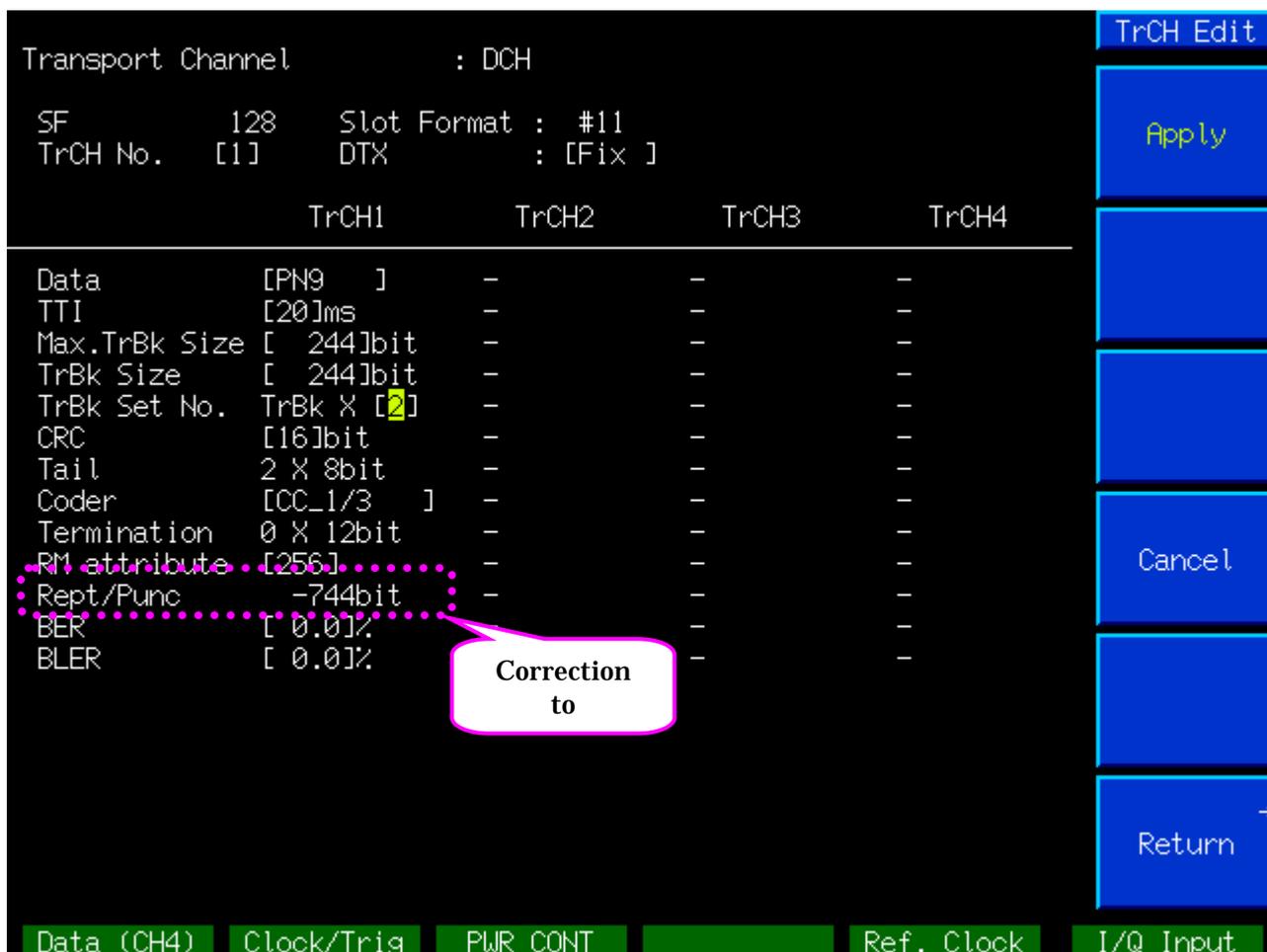
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**Correction of Puncturing bit length at setting to 2 or more transport blocks in TrCH, and Convolutional coding 1/3 or 1/2**



TrBk Set No. TrBk × [2], [3] or [4]  
 Coder [CC\_1/2] or [CC\_1/3]

In the above case, error was detected to Puncturing bit length in Rate matching.  
 The output signal is also the same error.

\* This setting state is not in 3GPP Reference Measurement Channel.

**Correction:** Bit length of TTI = (TrBk + CRC + Tail) × [1~4] × [Conv.Coding 1/R] - Puncturing  
 E.g.  $420 \times 2 = (244 + 16 + 8) \times [2] \times [3] - 768$

↑↑

**Error:** Bit length of TTI = {(TrBk + CRC) × [1~4] + Tail} × [Conv.Coding 1/R] - Puncturing  
 E.g.  $420 \times 2 = \{(244 + 16) \times [2] + 8\} \times [3] - 744$

# Correction of signal output at setting to add DTX(Discontinuous Transmission) in DL RMC for BTFD

## 3GPP TS 25.101 UE Radio Transmission and Reception (FDD)

### 8.10 Blind transport format detection

#### A.4 DL reference measurement channel for BTFD performance requirements

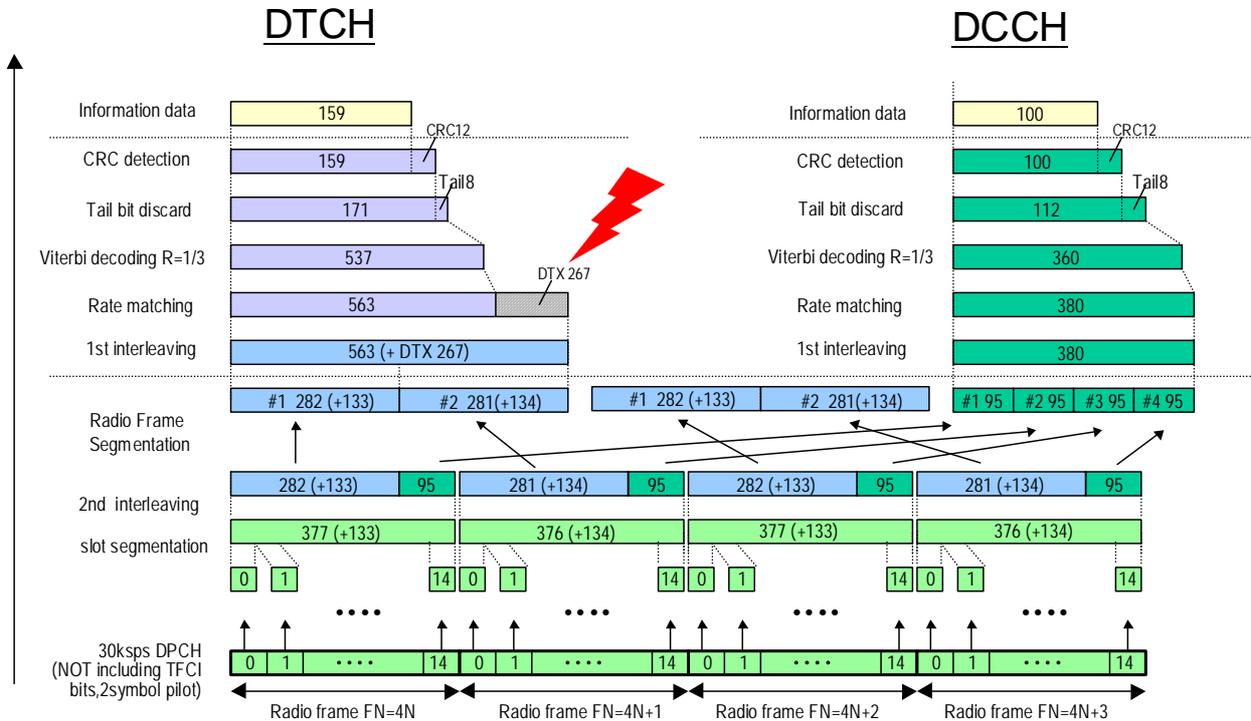


Figure A.10 (Informative): Channel coding of DL reference measurement channel for BTFD (Rate 2)

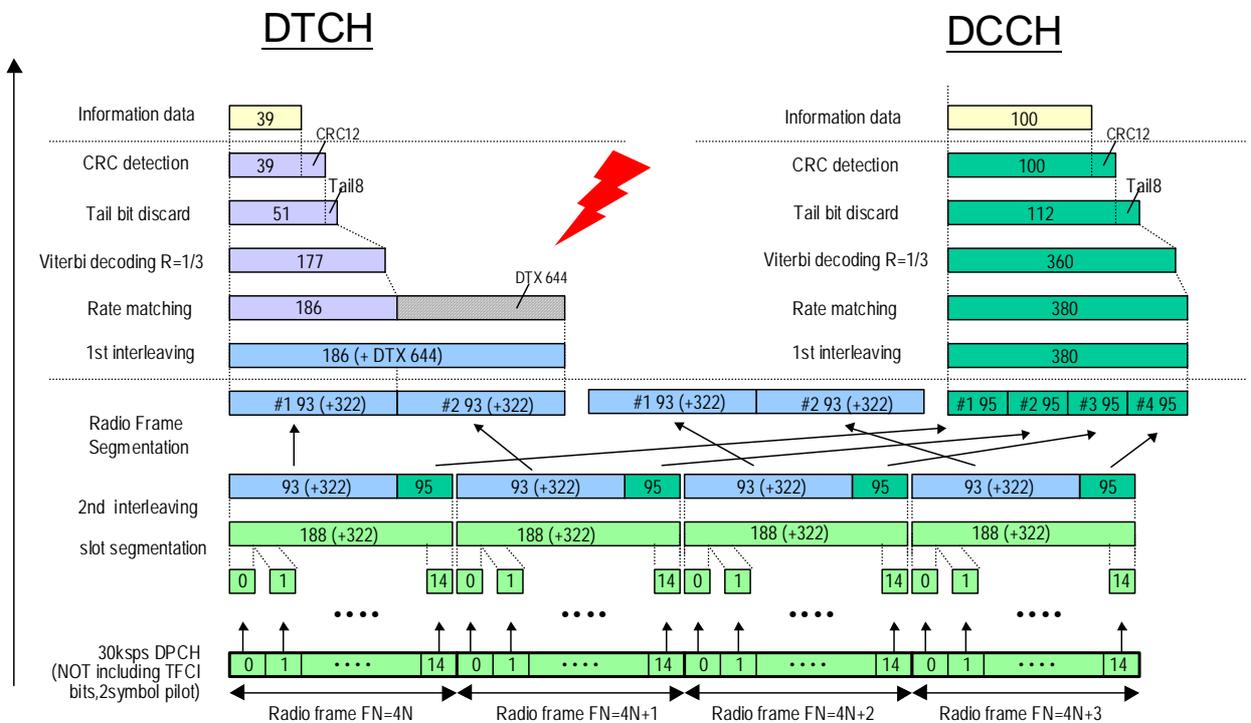


Figure A.11 (Informative): Channel coding of DL reference measurement channel for BTFD (Rate 3)

As shown in the above figure, in setting case that DTX(Discontinuous Transmission) is added to "Rate matching" ...



CDMA Channel 4 - 8 Edit

Channel 4 (Symbol Rate 30.00Kbps)

Channel Type : [DL-DPCH] Power2 : [-10.3dB]

SF : [128] Channelization Code : [127]

Offset : [ 0Symbol] Scrambling Code Gen.: [ 1]

---

Channel 5 (Symbol Rate 15.00Kbps)

Channel Type : [Down-load] Power2 : [-40.0dB]

SF : [ 256] Channelization Code : [ 127]

Offset : [ 0Symbol] Scrambling Code Gen.: [ 1]

---

Channel 6 (Symbol Rate 15.00Kbps)

Channel Type : [CPICH]

SF : 256 Channelization Code : 0

Offset : [ 0Symbol] Scrambling Code Gen.: [ 1]

CH4 - CH8

[F1] → CH4 PhCH Edit

CH6 PhCH Edit

Physical channel : DL-DPCH

Data 1	TPC	TFCI	Data 2	Pilot
(6)	(2)	(0)	(28)	(4)

Slot Format : [#8]

Data : [DCH]

TPC : [555 5555 5555 5555]H

TFCI : -

Antenna : [1]

DPCCH/DPDCH Power Ratio : [ 0.0]dB

BER : -

PhCH Edit

[F1] → TrCH Edit

Transport Channel : DCH

SF 128 Slot Format : #8  
 TrCH No. [2] DTX : [Fix ]

[F1] → Apply

	TrCH1	TrCH2	TrCH3	TrCH4
Data	[PN9 ]	[PN9 ]	-	-
TTI	[20]ms	[40]ms	-	-
Max.TrBk Size	[ 244]bit	[ 100]bit	-	-
TrBk Size	[ 159]bit	[ 100]bit	-	-
TrBk Set No.	TrBk X [1]	TrBk X [1]	-	-
CRC	[12]bit	[12]bit	-	-
Tail	1 X 8bit	1 X 8bit	-	-
Coder	[CC_1/3 ]	[CC_1/3 ]	-	-
Termination	0 X 12bit	0 X 12bit	-	-
RM attribute	[256]	[256]	-	-
Rept/Punc	38bit	20bit	-	-
BER	[ 0.0]%	[ 0.0]%	-	-
BLER	[ 0.0]%	[ 0.0]%	-	-

Cancel

\* The setting of (Rate 2)

Transport Channel : DCH

SF 128 Slot Format : #8  
 TrCH No. [2] DTX : [Fix ]

[F1] → Apply

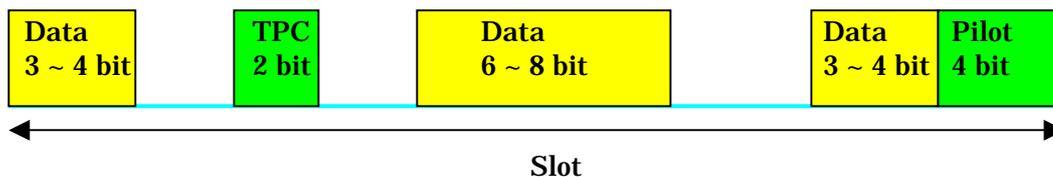
	TrCH1	TrCH2	TrCH3	TrCH4
Data	[PN9 ]	[PN9 ]	-	-
TTI	[20]ms	[40]ms	-	-
Max.TrBk Size	[ 244]bit	[ 100]bit	-	-
TrBk Size	[ 39]bit	[ 100]bit	-	-
TrBk Set No.	TrBk X [1]	TrBk X [1]	-	-
CRC	[12]bit	[12]bit	-	-
Tail	1 X 8bit	1 X 8bit	-	-
Coder	[CC_1/3 ]	[CC_1/3 ]	-	-
Termination	0 X 12bit	0 X 12bit	-	-
RM attribute	[256]	[256]	-	-
Rept/Punc	38bit	20bit	-	-
BER	[ 0.0]%	[ 0.0]%	-	-
BLER	[ 0.0]%	[ 0.0]%	-	-

Cancel

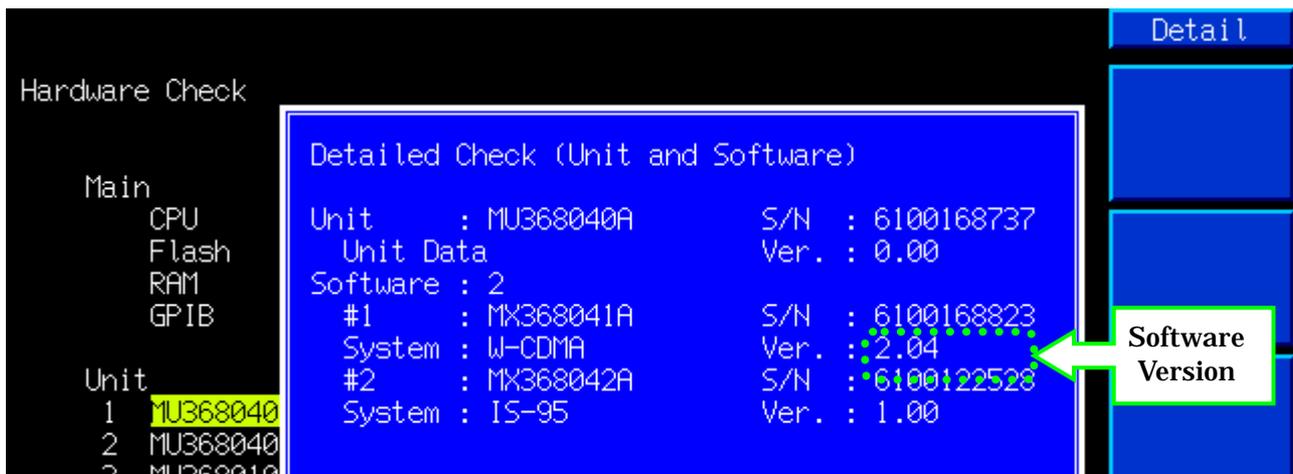
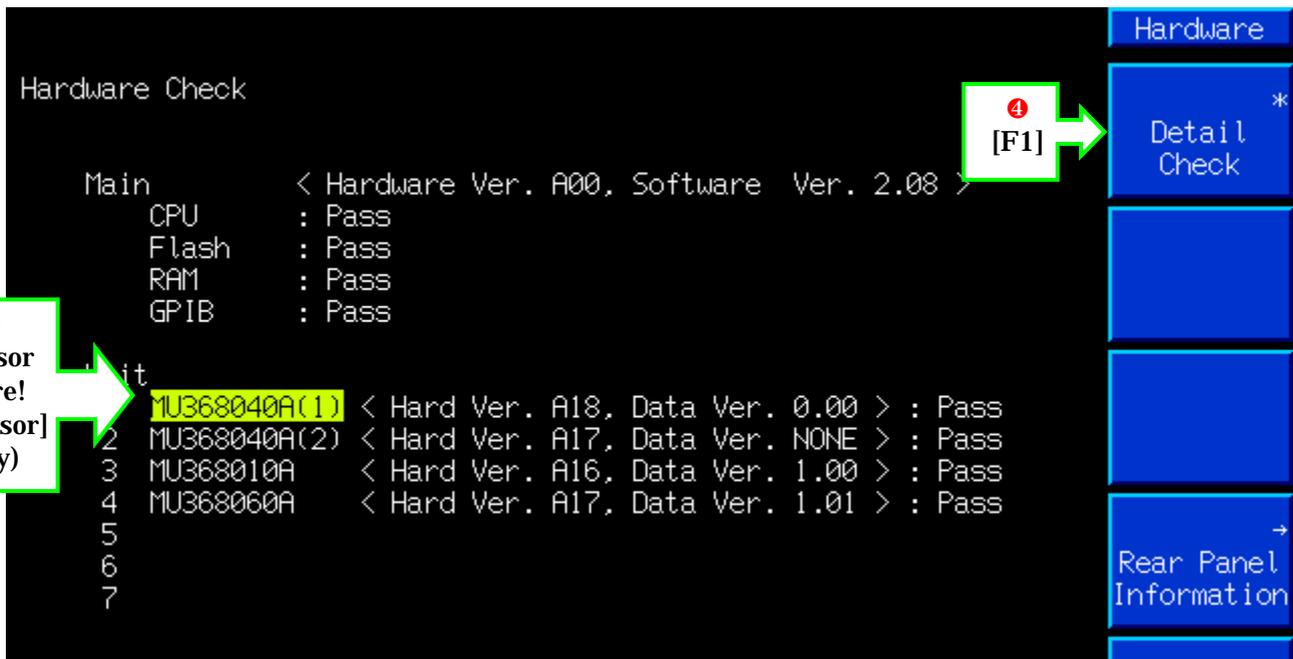
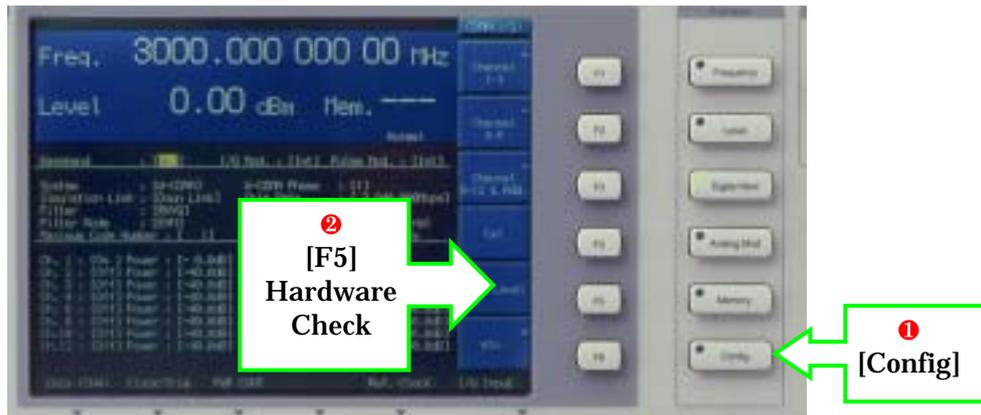
\* The setting of (Rate 3)

If the Data area in each Slot is odd bit length in DPCH physical channel, the I/Q symbol position of data bit "1" rotates 90 degrees data. This error was detected.

In this case, when the signal is received, it is judged that the bit is not transmitted.



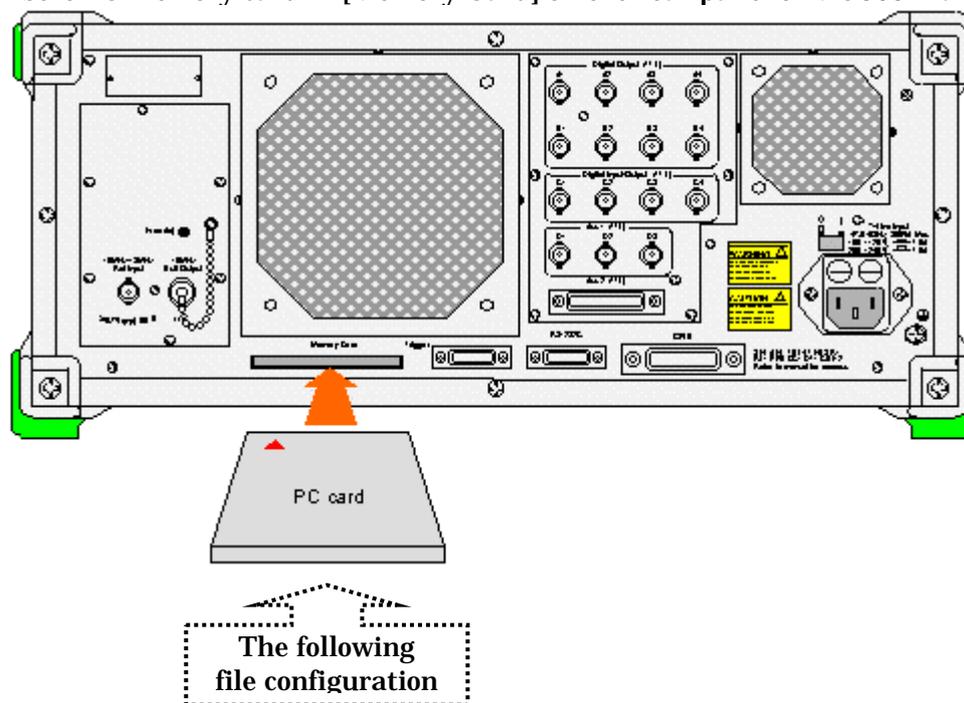
## How to check Version



## How to upgrade

Please consult with our sales staff about updated firmware object.

1. Please prepare clear PC memory card (MX368041A/B card that the file and folder are empty).
2. Please copy to PC memory card like the following page.
3. Please power-off MG3681A.
4. Please insert PC memory card in [Memory Card] on the rear panel of MG3681A.

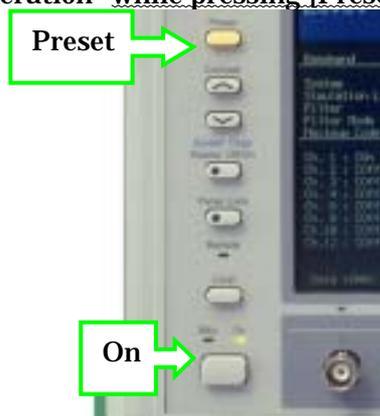


[Updated software object]

5. Please power-on MG3681A (while pressing [Preset]).  
(All LED on a front panel light up simultaneously. → Release the [Preset].)



DSP program has been updated by Version 2.06, so in case of the upgrade from Version 2.05 or less, operation "while pressing [Preset]" is required.



Power-on while pressing [Preset] is changed to the state of Master Reset (initial setting in the factory).

The data of BPM(Basic Parameter Memory) and APM(All Parameter Memory) saved by [Memory] function are erased, so Memory data should be backed up to a PC memory card if necessary.

- 1) Backup to a PC memory card:  
[Memory] → [F6]etc. → [F3]Basic PRM Export / [F5]All PRM Export
- 2) Download from a PC memory card:  
[Memory] → [F6]etc. → [F2]Basic PRM Import / [F4]All PRM Import

6. The firmware is upgraded in 1 to 2 minutes.

## File configuration in PC memory card

The signal pattern files are saved in each folder .



\*\*\*\*\*.cmb      \*\*\*\*\*.dat      \*\*\*\*\*.dli  
 \*\*\*\*\*.txt

### MX368041A/B    Version 2.10

	<b>DL2002-3-99BASIC</b> Folder : The latest extracted basic signal pattern files <span style="color: red;">(25 patterns Red characters)</span>
	<b>DL2002-3-99FULLSET</b> Folder : The latest full signal pattern files      (62 patterns)
	<b>Manritsu</b> Folder : Firmware
	*****.cmb      *****.dat      *****.dli *****.txt Files : The same extracted basic signal pattern files as the inside of the folder <span style="color: red;">(25 patterns Red characters)</span>

### MX368041A/B-10      Version 1.02

	<b>BS-TestModel1</b> Folder : TS25.141 Test Model 1    Single carrier    (12 patterns)
	<b>BS-TestModel1MC</b> Folder : TS25.141 Test Model 1    2 carriers <span style="color: blue;">(6 patterns Blue characters)</span>
	<b>BS-TestModel2</b> Folder : TS25.141 Test Model 2      (4 patterns)
	<b>BS-TestModel3</b> Folder : TS25.141 Test Model 3      (8 patterns)
	<b>BS-TestModel4</b> Folder : TS25.141 Test Model 4      (4 patterns)
	<b>BS-TestModel5</b> Folder : TS25.141 Test Model 5    Single carrier <span style="color: blue;">(12 patterns Blue characters)</span>
	<b>BS-TestModel5MC</b> Folder : TS25.141 Test Model 5    2 carriers <span style="color: blue;">(6 patterns Blue characters)</span>
	<b>DL-RMC</b> Folder : TS25.101 DL RMC      (13 patterns)
	<b>DL-Interferer</b> Folder : TS25.101 W-CDMA Modulated Interferer (1 patterns)
	<b>DL-RMC4PILOT</b> Folder : TS25.101 DPCCH as phase reference <span style="color: blue;">(3 patterns Blue characters)</span>

	<b>DL-OTD</b> Folder : TS25.101 Open-loop Transmit diversity mode (6 patterns Blue char.)	
	<b>DL-Compressed</b> Folder : TS25.101 Downlink compressed mode (15 patterns Blue characters)	
	<b>DL-BTFD</b> Folder : TS25.101 BTFD	(9 patterns Blue characters)
	<b>DL-PCH</b> Folder : TS25.101 PCH	(3 patterns Blue characters)
	<b>DL-AMR</b> Folder : Downlink AMR	(9 patterns)
	<b>DL-ISDN</b> Folder : Downlink ISDN	(3 patterns)
	<b>UL-RMC</b> Folder : TS25.104 UL RMC	(4 patterns)
	<b>UL-RACH_CPCH</b> Folder : TS25.104 RACH / CPCH	(5 patterns Blue characters)
	<b>UL-SSDT</b> Folder : TS25.104 SSDT	(2 patterns Blue characters)
	<b>UL-AMR</b> Folder : Uplink AMR	(3 patterns)
	<b>UL-ISDN</b> Folder : Uplink ISDN	(1 patterns)

MX368041A/B-11      Version 1.01

	<b>BS-TestModel1</b> Folder : TS25.141 Test Model 1    Single carrier	(12 patterns)
	<b>BS-TestModel1MC</b> Folder : TS25.141 Test Model 1    2 carriers	(6 patterns Blue characters)
	<b>BS-TestModel2</b> Folder : TS25.141 Test Model 2	(4 patterns)
	<b>BS-TestModel3</b> Folder : TS25.141 Test Model 3	(8 patterns)
	<b>BS-TestModel4</b> Folder : TS25.141 Test Model 4	(4 patterns)
	<b>BS-TestModel5</b> Folder : TS25.141 Test Model 5    Single carrier	(12 patterns Blue characters)
	<b>BS-TestModel5MC</b> Folder : TS25.141 Test Model 5    2 carriers	(6 patterns Blue characters)
	<b>DL-RMC</b> Folder : TS25.101 DL RMC	(13 patterns)
	<b>DL-Interferer</b>	

	Folder	: TS25.101 W-CDMA Modulated Interferer	(1 patterns)
	DL-RMC4PILOT		
	Folder	: TS25.101 DPCCH as phase reference	(3 patterns Blue characters)
	DL-OTD		
	Folder	: TS25.101 Open-loop Transmit diversity mode	(6 patterns Blue char.)
	DL-Compressed		
	Folder	: TS25.101 Downlink compressed mode	(15 patterns Blue characters)
	DL-BTFD		
	Folder	: TS25.101 BTFD	(9 patterns Blue characters)
	DL-PCH		
	Folder	: TS25.101 PCH	(3 patterns Blue characters)
	DL-FRC		
	Folder	: TS25.101 DL FRC	(8 patterns Green characters)
	DL-AMR		
	Folder	: Downlink AMR	(9 patterns)
	DL-ISDN		
	Folder	: Downlink ISDN	(3 patterns)
	UL-RMC		
	Folder	: TS25.104 UL RMC	(4 patterns)
	UL-RACH_CPCH		
	Folder	: TS25.104 RACH / CPCH	(5 patterns Blue characters)
	UL-SSDT		
	Folder	: TS25.104 SSDT	(2 patterns Blue characters)
	UL-AMR		
	Folder	: Uplink AMR	(3 patterns)
	UL-ISDN		
	Folder	: Uplink ISDN	(1 patterns)



In order to download the signal patterns by F5 [Pattern Download], please **copy** the required signal pattern files to the **root directory** in a PC memory card.

The already downloaded unnecessary signal patterns can be deleted by F4 [Pattern Clear].



The download capacity by F5 [Pattern Download] is up to 32 signal patterns.

Freq. 3000000000.000000 MHz  
 Level 50.0 dB

Baseband : [On]    Q Mod. :

1:BS116_7	11:D32T48s0	22:UL_AMR#1	Knob	52:DISDN8s9
2:BS132_7	12:DAMR18s0	23:UL_AMR#2	Step	53:DL_C31
3:BS164_7	13:DAMR28s0	24:UL_AMR#3	Cursor	54:DL_INTR
4:BS2_7	14:DAMR38s0	25:UL_ISDN		55:ULRMC12k
5:BS316_7	15:DISDN8s0	26:		56:ULRMC144
6:BS332_7	16:DL_C31	27:		57:ULRMC384
7:BS4_7	17:DL_INTR	28:		58:ULRMC64k
8:D32T18s0	18:ULRMC12k	29:		59:UL_AMR#1
9:D32T28s0	19:ULRMC144	30:		60:UL_AMR#2
10:D32T38s0	20:ULRMC384	31:		61:UL_AMR#3
	21:ULRMC64k	32:		62:UL_ISDN

Total Share : Symbol = 22    Wave = 45  
 Symbol = 1  
 Wave = 3

AWGN : [Off]    C/N :    Wanted -    Noise -

Data (CH4)    Clock/Trig    PWR CONT    Ref. Clock    I/

## **Signal pattern list**

### **Contents**

- **Release**                3GPP specifications release date
- **Title**                    3GPP specifications name
- **Number**                3GPP specifications number
- **Test item**             Type of test
- **Channel combination** Type of channel combination to output
- **DPCH parameter**    Type of DPCH parameter
- **Signal pattern name** Signal pattern display name

Release		2001-03	2001-06	2001-09	2001-12	2002-03	2002-06	2002-09	2002-12	2003-03	2003-06	2003-09	2003-12		
Title	Number	Release 1999 (upside) / Release 5 (downside)													
Physical Channel Format	TS25.211	V3.6.0	V3.7.0	V3.8.0	V3.9.0	V3.10.0	V3.11.0	V3.12.0 V5.2.0	- V5.3.0	-	- V5.4.0	- V5.5.0	-		
Channel Coding	TS25.212	V3.5.0	V3.6.0	V3.7.0	V3.8.0	V3.9.0	V3.10.0	V3.11.0 V5.2.0	- V5.3.0	- V5.4.0	- V5.5.0	- V5.6.0	- V5.7.0		
Spreading and modulation	TS25.213	V3.5.0	V3.6.0	-	V3.7.0	-	V3.8.0	- V5.2.0	-	- V5.3.0	-	- V5.4.0	V3.9.0 V5.5.0		
UE Radio Transmission and Reception (FDD)	TS25.101	V3.6.0	V3.7.0	V3.8.0	V3.9.0	V3.10.0	V3.11.0	- V5.4.0	V3.12.0 V5.5.0	V3.13.0 V5.6.0	V3.14.0 V5.7.0	V3.15.0 V5.8.0	V3.16.0 V5.9.0		
UTRA(BS) FDD; Radio transmission and reception	TS25.104	V3.6.0	V3.7.0	V3.8.0	V3.9.0	V3.10.0	-	- V5.4.0	V3.11.0 V5.5.0	V3.12.0 V5.6.0	- V5.7.0	-	- V5.8.0		
Base station conformance testing (FDD)	TS25.141	V3.5.0	V3.6.0	V3.7.0	V3.8.0	V3.9.0	V3.10.0	V3.11.0 V5.4.0	V3.12.0 V5.5.0	V3.13.0 V5.6.0	- V5.7.0	-	- V5.8.0		
Channel coding and multiplexing examples	TR25.944	V3.4.0	V3.5.0	-	-	-	-	-	-	-	-	-	-		
Test item	Channel combination	DPCH parameter	Signal pattern name												
TS25.141 6.1.1 Transmitter Test Models	TS25.141 6.1.1.1 Test Model 1	16 DPCH	BS1_16	-	BS116_7 BS116_71 BS116_72 BS116_73	BS116_8 BS116_81 BS116_82 BS116_83	-	-	-	-	-	-	BS11657 BS116571 BS116572 BS116573	-	
		(2 carriers)							B11654d B11654d2	B11655d B11655d2	-	-	B11657d B11657d2	B11657d B11657d2	
		32 DPCH	BS1_32	-	BS132_7 BS132_71 BS132_72 BS132_73	BS132_8 BS132_81 BS132_82 BS132_83	-	-	-	-	-	-	BS13257 BS132571 BS132572 BS132573	-	
		(2 carriers)							B13254d B13254d2	B13255d B13255d2	-	-	B13257d B13257d2	B13257d B13257d2	
	TS25.141 6.1.1.2 Test Model 2	-	BS2	-	BS2_7 BS2_71 BS2_72 BS2_73	BS2_8 BS2_81 BS2_82 BS2_83	-	-	-	-	-	-	BS257 BS2571 BS2572 BS2573	-	
			TS25.141 6.1.1.3 Test Model 3	16 DPCH	BS3_16	-	BS316_7 BS316_71 BS316_72 BS316_73	BS316_8 BS316_81 BS316_82 BS316_83	-	-	-	-	-	BS31657 BS316571 BS316572 BS316573	-
			32 DPCH		BS3_32	-	BS332_7 BS332_71 BS332_72 BS332_73	BS332_8 BS332_81 BS332_82 BS332_83	-	-	-	-	-	BS33257 BS332571 BS332572 BS332573	-

	TS25.141 6.1.1.4 Test Model 4	-	BS4	-	BS4_7 BS4_71 BS4_72 BS4_73	BS4_8 BS4_81 BS4_82 BS4_83	-	-	-	-	-	-	BS457 BS4571 BS4572 BS4573	-
	TS25.141 6.1.1.4A Test Model 5	2 HS-PDSCH + 6 DPCH  (2 carriers)							BS5_254 BS5_2541 BS5_2542 BS5_2543	BS5_255 BS5_2551 BS5_2552 BS5_2553	-	-	BS5_257 BS5_2571 BS5_2572 BS5_2573	BS5_257 BS5_2571 BS5_2572 BS5_2573
		4 HS-PDSCH + 14 DPCH  (2 carriers)							B5_254d B5_254d2	B5_255d B5_255d2	-	-	B5_257d B5_257d2	B5_257d B5_257d2
		8 HS-PDSCH + 30 DPCH  (2 carriers)							BS5_454 BS5_4541 BS5_4542 BS5_4543	BS5_455 BS5_4551 BS5_4552 BS5_4553	-	-	BS5_457 BS5_4571 BS5_4572 BS5_4573	BS5_457 BS5_4571 BS5_4572 BS5_4573
									B5_454d B5_454d2	B5_455d B5_455d2	-	-	B5_457d B5_457d2	B5_457d B5_457d2
	TS25.101 7 Receiver characteristics 8 Performance requirement	TS25.101 Annex C.3.1	TS25.101 Annex A.3.1	DL_C31	-	-	-	-	-	-	-	-	-	-
		TS25.101 Annex C.3.2		DL_C32T1	D32T17s0	D32T18s0 D32T18s8 D32T18s9	-	-	-	-	-	-	-	-
			TS25.101 Annex A.3.2	DL_C32T2	D32T27s0	D32T28s0 D32T28s8 D32T28s9	-	-	-	-	-	-	-	-
			TS25.101 Annex A.3.3	DL_C32T3	D32T37s0	D32T38s0 D32T38s8 D32T38s9	-	-	-	-	-	-	-	-
			TS25.101 Annex A.3.4	DL_C32T4	D32T47s0	D32T48s0 D32T48s8 D32T48s9	-	-	-	-	-	-	-	-
		TS25.101 Annex C.4	TS25.101 Table C.6	-	-	DL_INTR	-	-	-	-	-	-	-	-
	8.3 in multi-path (Case7) Test21~25	TS25.101 Annex C.3.5	TS25.101 Annex A.4A						4Ps0 4Ps8 4Ps9					
	8.6.1 open-loop transmit diversity	TS25.101 Annex C.3.3	TS25.101 Annex A.3.1						OTD1s0 OTD1s8 OTD1s9					
									OTD2s0 OTD2s8 OTD2s9					
	8.9 Downlink compressed mode	TS25.101 Annex C.3.2	TS25.101 Annex A.5						DCP11540 DCP11548 DCP11549					

8.10 BTFD		(Downlink)								DCP12540 DCP12548 DCP12549	-	-	-	-	-		
										DCP21540 DCP21548 DCP21549	-	-	-	-	-		
										DCP22540 DCP22548 DCP22549	-	-	-	-	-		
8.12 PCH		TS25.101 Annex A.4								BTFD1s0 BTFD1s8 BTFD1s9	-	-	-	-	-		
										BTFD2s0 BTFD2s8 BTFD2s9	-	-	-	-	-		
										BTFD3s0 BTFD3s8 BTFD3s9	-	-	-	-	-		
7.4.2 Maximum input level HS-PDSCH 9 Performance requirement (HSDPA)	TS25.101 Annex C.5.1 Table C.8	TS25.101 Annex A.7.1														F1P0s0 F1A0s0 F2P0s0 F2A0s0 F3P0s0 F3A0s0 F4P0s0 F5P0s0	F1P0s0 F1A0s0 F2P0s0 F2A0s0 F3P0s0 F3A0s0 F4P0s0 F5P0s0
TS25.104 7 Receiver characteristics 8 Performance requirement	TS25.104 Annex A.1	TS25.104 Annex A.2	ULRMC12k	-	-	-	-	-	-	-	-	-	-	-	-	-	
		TS25.104 Annex A.3	ULRMC64k	-	-	-	-	-	-	-	-	-	-	-	-	-	
		TS25.104 Annex A.4	ULRMC144	-	-	-	-	-	-	-	-	-	-	-	-	-	
		TS25.104 Annex A.5	ULRMC384	-	-	-	-	-	-	-	-	-	-	-	-	-	
8.8.1 RACH preamble 8.8.3 RACH message	TS25.211 5.2.2.1	TS25.213 4.3.3								PRE	-	-	-	-	-	-	
		TS25.104 Annex A.7								R168 R360	-	-	-	-	-	-	
8.9.3 CPCH message	TS25.211 5.2.2.2	TS25.104 Annex A.8								C168 C360	-	-	-	-	-	-	
8.10 SSDT	TS25.104 Annex A.1	TS25.104 Annex A.2								SSDTa SSDTb	-	-	-	-	-	-	
-	TS25.101 Annex C.3.2	TR25.944 4.1.1.3.1.1 DCCH 4.1.1.3.1.2 AMR TFCS#1 4.1.1.3.2.2	DL_AMR#1	DAMR17s0	DAMR18s0	-	-	-	-	-	-	-	-	-	-	-	
					DAMR18s8 DAMR18s9												

		TR25.944 4.1.1.3.1.1 DCCH 4.1.1.3.1.2 AMR TFCS#2 4.1.1.3.2.2	DL_AMR#2	DAMR27s0	DAMR28s0 DAMR28s8 DAMR28s9	-	-	-	-	-	-	-	-
		TR25.944 4.1.1.3.1.1 DCCH 4.1.1.3.1.2 AMR TFCS#3 4.1.1.3.2.2	DL_AMR#3	DAMR37s0	DAMR38s0 DAMR38s8 DAMR38s9	-	-	-	-	-	-	-	-
		TR25.944 4.1.1.3.1.1 DCCH 4.1.1.3.1.6 ISDN 4.1.1.3.2.5	DL_ISDN	DISDN7s0	DISDN8s0 DISDN8s8 DISDN8s9	-	-	-	-	-	-	-	-
-	TS25.104 Annex A.1	TR25.944 4.1.2.2.1.1 DCCH 4.1.2.2.1.2 AMR TFCS#1 4.1.2.2.2	UL_AMR#1	-	-	-	-	-	-	-	-	-	-
		TR25.944 4.1.2.2.1.1 DCCH 4.1.2.2.1.2 AMR TFCS#2 4.1.2.2.2	UL_AMR#2	-	-	-	-	-	-	-	-	-	-
		TR25.944 4.1.2.2.1.1 DCCH 4.1.2.2.1.2 AMR TFCS#3 4.1.2.2.2	UL_AMR#3	-	-	-	-	-	-	-	-	-	-
		TR25.944 4.1.2.2.1.1 DCCH 4.1.2.2.1.6 ISDN 4.1.2.2.2	UL_ISDN	-	-	-	-	-	-	-	-	-	-

**BS11657**

```

Pattern Contents (No. 7:BS11657 )
Channel combination :
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 16
(TEST MODEL 1 in 3G TS25.141 V5.7.0)
ch1 : P-CCPCH + SCH
ch2-3 : OFF
ch4 : S-CCPCH
ch5 : PICH
ch6-11: OFF
ch12 : CPICH
additional ch : DPCH x 16 ch
Scrambling code number = 00h

```

- \* Scrambling code number = 10 HEX: BS116571
- \* Scrambling code number = 20 HEX: BS116572
- \* Scrambling code number = 30 HEX: BS116573

**BS13257**

```

Pattern Contents (No. 8:BS13257 )
Channel combination :
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 32
(TEST MODEL 1 in 3G TS25.141 V5.7.0)
ch1 : P-CCPCH + SCH
ch2-3 : OFF
ch4 : S-CCPCH
ch5 : PICH
ch6-11: OFF
ch12 : CPICH
additional ch : DPCH x 32 ch
Scrambling code number = 00h

```

- BS132571
- BS132572
- BS132573

**BS16457**

```

Pattern Contents (No. 9:BS16457 )
Channel combination :
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 64
(TEST MODEL 1 in 3G TS25.141 V5.7.0)
ch1 : P-CCPCH + SCH
ch2-3 : OFF
ch4 : S-CCPCH
ch5 : PICH
ch6-11: OFF
ch12 : CPICH
additional ch : DPCH x 64 ch
Scrambling code number = 00h

```

- \* Scrambling code number = 10 HEX: BS164571
- \* Scrambling code number = 20 HEX: BS164572
- \* Scrambling code number = 30 HEX: BS164573

**BS257**

```

Pattern Contents (No.10:BS257 )
Channel combination :
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 3
(TEST MODEL 2 in 3G TS25.141 V5.7.0)
ch1 : P-CCPCH + SCH
ch2-3 : OFF
ch4 : S-CCPCH
ch5 : PICH
ch6-11: OFF
ch12 : CPICH
additional ch : DPCH x 3 ch
Scrambling code number = 00h

```

- BS2571
- BS2572
- BS2573

**BS31657**

```

Pattern Contents (No.11:BS31657 )
Channel combination :
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 16
(TEST MODEL 3 in 3G TS25.141 V5.7.0)
ch1 : P-CCPCH + SCH
ch2-3 : OFF
ch4 : S-CCPCH
ch5 : PICH
ch6-11: OFF
ch12 : CPICH
additional ch : DPCH x 16 ch
Scrambling code number = 00h

```

- \* Scrambling code number = 10 HEX: BS316571
- \* Scrambling code number = 20 HEX: BS316572
- \* Scrambling code number = 30 HEX: BS316573

**BS33257**

```

Pattern Contents (No.12:BS33257 )
Channel combination :
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 32
(TEST MODEL 3 in 3G TS25.141 V5.7.0)
ch1 : P-CCPCH + SCH
ch2-3 : OFF
ch4 : S-CCPCH
ch5 : PICH
ch6-11: OFF
ch12 : CPICH
additional ch : DPCH x 32 ch
Scrambling code number = 00h

```

- BS332571
- BS332572
- BS332573

- \* P-CCPCH: Conformity to TS25.141 6.1.1.6.1 P-CCPCH
- \* PICH: Conformity to TS25.141 6.1.1.6.2 PICH

### BS457

```

Pattern Contents (No.13:BS457 )
Channel combination :
P-CCPCH + SCH + CPICH
(TEST MODEL 4 in 3G TS25.141 V5.7.0)
ch1 : P-CCPCH + SCH
ch2-11: OFF
ch12 : CPICH
additional ch : OFF

```

- \* Scrambling code number = 10 HEX: BS4571
- \* Scrambling code number = 20 HEX: BS4572
- \* Scrambling code number = 30 HEX: BS4573

### BS5\_257

```

Pattern Contents (No.14:BS5_257 )
Channel combination : (ver1.02)
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 6
+ HS-SCH x 2 + HS-PSCH x 2
(TEST MODEL 5 in 3G TS25.141 V5.7.0)
ch1-12: OFF
additional ch : All Channels
Scrambling code number = 00h

```

- BS5\_2571
- BS5\_2572
- BS5\_2573

### BS5\_457

```

Pattern Contents (No.15:BS5_457 )
Channel combination : (ver1.02)
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 14
+ HS-SCH x 2 + HS-PSCH x 4
(TEST MODEL 5 in 3G TS25.141 V5.7.0)
ch1-12: OFF
additional ch : All Channels
Scrambling code number = 00h

```

- \* Scrambling code number = 10 HEX: BS5\_4571
- \* Scrambling code number = 20 HEX: BS5\_4572
- \* Scrambling code number = 30 HEX: BS5\_4573

### BS5\_857

```

Pattern Contents (No.16:BS5_857 )
Channel combination : (ver1.02)
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 30
+ HS-SCH x 2 + HS-PSCH x 8
(TEST MODEL 5 in 3G TS25.141 V5.7.0)
ch1-12: OFF
additional ch : All Channels
Scrambling code number = 00h

```

- BS5\_8571
- BS5\_8572
- BS5\_8573

### B11657d

```

Pattern Contents (No. 1:B11657d )
Channel combination : 2 multi-carrier signal
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 16
(TEST MODEL 5 in 3G TS25.141 V5.7.0) (ver1.02)
ch1-12: OFF
additional ch : 2 multi-carrier signal
carrier1:Scrambling code number = 00h
offset frequency = -2.5MHz
carrier2:Scrambling code number = 10h
offset frequency = +2.5MHz

```

- \* Scrambling code number = 20,30 HEX: BS11657d2

### B13257d

```

Pattern Contents (No. 2:B13257d )
Channel combination : 2 multi-carrier signal
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 32
(TEST MODEL 5 in 3G TS25.141 V5.7.0) (ver1.02)
ch1-12: OFF
additional ch : 2 multi-carrier signal
carrier1:Scrambling code number = 00h
offset frequency = -2.5MHz
carrier2:Scrambling code number = 10h
offset frequency = +2.5MHz

```

- BS13257d2

- \* P-CCPCH: Conformity to TS25.141 6.1.1.6.1 P-CCPCH
- \* PICH: Conformity to TS25.141 6.1.1.6.2 PICH

### B16457d

```
Pattern Contents (No. 3:B16457d )
Channel combination : 2 multi-carrier signal
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 64
(TEST MODEL 5 in 3G TS25.141 V5.7.0) (ver1.02)
ch1-12: OFF
additional ch : 2 multi-carrier signal
carrier1:Scrambling code number = 80h
offset frequency = -2.5MHz
carrier2:Scrambling code number = 10h
offset frequency = +2.5MHz
```

### B5\_257d

```
Pattern Contents (No. 4:B5_257d )
Channel combination : 2 multi-carrier signal
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 8
+ HS-S0CH x 2 + HS-PDSCH x 2
(TEST MODEL 5 in 3G TS25.141 V5.7.0) (ver1.02)
ch1-12: OFF
additional ch : 2 multi-carrier signal
carrier1:Scrambling code number = 80h
offset frequency = -2.5MHz
carrier2:Scrambling code number = 10h
offset frequency = +2.5MHz
```

\* Scrambling code number = 20,30 HEX: BS16457d2

B5\_257d2

### B5\_457d

```
Pattern Contents (No. 5:B5_457d )
Channel combination : 2 multi-carrier signal
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 14
+ HS-S0CH x 2 + HS-PDSCH x 4
(TEST MODEL 5 in 3G TS25.141 V5.7.0) (ver1.02)
ch1-12: OFF
additional ch : 2 multi-carrier signal
carrier1:Scrambling code number = 80h
offset frequency = -2.5MHz
carrier2:Scrambling code number = 10h
offset frequency = +2.5MHz
```

### B5\_857d

```
Pattern Contents (No. 6:B5_857d )
Channel combination : 2 multi-carrier signal
P-CCPCH + SCH + PICH + S-CCPCH + CPICH + DPCH x 30
+ HS-S0CH x 2 + HS-PDSCH x 8
(TEST MODEL 5 in 3G TS25.141 V5.7.0) (ver1.02)
ch1-12: OFF
additional ch : 2 multi-carrier signal
carrier1:Scrambling code number = 80h
offset frequency = -2.5MHz
carrier2:Scrambling code number = 10h
offset frequency = +2.5MHz
```

\* Scrambling code number = 20,30 HEX: B5\_457d2

B5\_857d2

\* P-CCPCH: Conformity to TS25.141 6.1.1.6.1 P-CCPCH

\* PICH: Conformity to TS25.141 6.1.1.6.2 PICH

## DL\_C31

```

Pattern Contents (No.18:DL_C31 )
Channel combination : TS25.101 V3.6.0 Annex C3.1
for Reference sensitivity level

ch1 : P-CCPCH + P/S-SCH
ch2-3 : OFF
ch4 : DL-DPCH (30 kbps)
      3G TS25.211 V3.6.0, TS25.212,213 V3.5.0
      3G TS25.101 V3.6.0 Annex A.3.1
      DL reference measurement channel 12.2 kbps
ch5 : PICH
ch6 : CPICH
ch7-12: OFF
Add ch: OFF
    
```

## D32T18s0

```

Pattern Contents (No. 5:D32T18s0)
Channel combination : TS25.101 V3.8.0 Annex C3.2
for Performance requirement
Demodulation of DCH TEST1 (BLER=10^-2)

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (30 kbps)
      3G TS25.211 V3.7.0, TS25.212,213 v3.6.0
      3G TS25.101 v3.7.0 Annex A.3.1
      DL reference measurement channel 12.2 kbps
ch5 : PICH
ch6 : CPICH
ch2-3, 7-12: OFF
Add ch: OCNS (TS25.101 V3.8.0 table C.6)
      Scrambling code number = 80h
    
```

## D32T28s0

```

Pattern Contents (No. 6:D32T28s0)
Channel combination : TS25.101 V3.8.0 Annex C3.2
for Performance requirement
Demodulation of DCH TEST2 (BLER=10^-2)

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (120 kbps)
      3G TS25.211 V3.7.0, TS25.212,213 V3.6.0
      3G TS25.101 V3.7.0 Annex A.3.2
      DL reference measurement channel 64 kbps
ch5 : PICH
ch6 : CPICH
ch2-3, ch7-12: OFF
Add ch: OCNS (TS25.101 V3.8.0 table C.6)
      Scrambling code number = 80h
    
```

- \* Scrambling code number = 80 HEX: D32T18s8
- \* Scrambling code number = 90 HEX: D32T18s9

- D32T28s8
- D32T28s9

## D32T38s0

```

Pattern Contents (No. 7:D32T38s0)
Channel combination : TS25.101 V3.8.0 Annex C3.2
for Performance requirement
Demodulation of DCH TEST3 (BLER=10^-2)

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (240 kbps)
      3G TS25.211 V3.7.0, TS25.212,213 V3.6.0
      3G TS25.101 V3.7.0 Annex A.3.3
      DL reference measurement channel 144 kbps
ch5 : PICH
ch6 : CPICH
ch2-3, ch7-12: OFF
Add ch: OCNS (TS25.101 V3.8.0 table C.6)
      Scrambling code number = 80h
    
```

## D32T48s0

```

Pattern Contents (No. 8:D32T48s0)
Channel combination : TS25.101 V3.8.0 Annex C3.2
for Performance requirement
Demodulation of DCH TEST4 (BLER=10^-2)

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (480 kbps)
      3G TS25.211 V3.7.0, TS25.212,213 v3.6.0
      3G TS25.101 v3.7.0 Annex A.3.4
      DL reference measurement channel 384 kbps
ch5 : PICH
ch6 : CPICH
ch2-3, ch7-12: OFF
Add ch: OCNS (TS25.101 V3.8.0 table C.6)
      Scrambling code number = 80h
    
```

- \* Scrambling code number = 80 HEX: D32T38s8
- \* Scrambling code number = 90 HEX: D32T38s9

- D32T48s8
- D32T48s9

- \* P-CCPCH: 11 bits SFN is mapped on BCH.
- \* DL\_DPCH: DPCH\_Ec/Ior conforms to BLER=10<sup>-2</sup> of “Demodulation of DCH”.
- \* PICH: Conformity to TS25.141 6.1.1.6.2 PICH
- \* OCNS: PN9 that added offset to initial value in each code  
OCNS of one frame cycle which reset PN9 in each frame

## DL\_INTR

```

Pattern Contents (No.19:DL_INTR )
Channel combination : TS25.101 V3.8.0 Annex C.4
for Modulation Intefere
ch1 : P-CCPCH + SCH
ch2-3 : OFF
ch4 : OFF
ch5 : PICH
ch6-11: OFF
ch12 : CPICH
additional ch : OCNS (TS25.101 V3.8.0 table C.6)
Scrambling code number = 2000h

```

\* SCH: S-SCH\_SSC = Group 0

## 4Ps0

```

Pattern Contents (No. 1:4Ps0 )
Channel combination : TS25.101 V5.4.0 Annex C3.5
for Performance requirement Demodulation of DCH
in multi-path fading propagation condition TEST1
ch1 : P-CCPCH + P/S-SCH
ch4 : DPCH (30 kbps)
3G TS25.141 V5.4.0 Annex A.4A
DL RNC using DPCH with 4 pilot bits
as phase reference
ch5 : PICH
ch6 : CPICH
ch2-3, ch7-12: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)
Scrambling code number = 00h

```

\* Scrambling code number = 80 HEX: 4Ps8

\* Scrambling code number = 90 HEX: 4Ps9

## OTD1s0

```

Pattern Contents (No.20:OTD1s0 )
Channel combination : TS25.101 V5.4.0 Annex C3.3
for Performance requirement Demodulation of DCH in
open-loop transmit diversity mode TEST1 antenna 1
ch1 : P-CCPCH + P/S-SCH (TSTD)
ch2 : CPICH
ch4 : DL-DPCH (30 kbps)
3G TS25.101 v5.4.0 Annex A.3.1
DL reference measurement channel 12.2 kbps
ch5 : PICH
ch3, 6-12: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)
Scrambling code number = 00h

```

\* Scrambling code number = 80 HEX: OTD1s8

\* Scrambling code number = 90 HEX: OTD1s9

\* OCNS: Not STTD encoding

## OTD2s0

```

Pattern Contents (No.21:OTD2s0 )
Channel combination : TS25.101 V5.4.0 Annex C3.3
for Performance requirement Demodulation of DCH in
open-loop transmit diversity mode TEST1 antenna 2
ch1 : P-CCPCH + P/S-SCH (TSTD)
ch2 : CPICH
ch4 : DL-DPCH (30 kbps)
3G TS25.101 v5.4.0 Annex A.3.1
DL reference measurement channel 12.2 kbps
ch5 : PICH
ch3, 6-12: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)
Scrambling code number = 00h

```

OTD2s8

OTD2s9

\* P-CCPCH: 11 bits SFN is mapped on BCH.

\* PICH: Conformity to TS25.141 6.1.1.6.2 PICH

\* OCNS: PN9 that added offset to initial value in each code  
OCNS of one frame cycle which reset PN9 in each frame

### DCP11540

```

Pattern Contents (No.12:DCP11540)
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Downlink compressed mode Test1

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (Normal frame)
ch5 : DL-DPCH (Compressed frame)
      TS25.101 v5.4.0 Annex A.3.1
      DL reference measurement channel 12.2 kbps
      TS25.101 v5.4.0 Annex A.5 pattern 1 set 1
ch6 : CPICH
ch12 : PICH (32bit 'FFFF0000' repeat)
ch2-3, 7-11: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)

```

### DCP12540

```

Pattern Contents (No.13:DCP12540)
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Downlink compressed mode Test1

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (Normal frame)
ch5 : DL-DPCH (Compressed frame)
      TS25.101 v5.4.0 Annex A.3.1
      DL reference measurement channel 12.2 kbps
      TS25.101 v5.4.0 Annex A.5 pattern 1 set 2
ch6 : CPICH
ch12 : PICH (32bit 'FFFF0000' repeat)
ch2-3, 7-11: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)

```

- \* Scrambling code number = 80 HEX: DCP11548
- \* Scrambling code number = 90 HEX: DCP11549

- DCP12548
- DCP12549

### DCP21540

```

Pattern Contents (No.14:DCP21540)
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Downlink compressed mode Test1

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (Normal frame)
ch5 : DL-DPCH (Compressed frame)
      TS25.101 v5.4.0 Annex A.3.1
      DL reference measurement channel 12.2 kbps
      TS25.101 v5.4.0 Annex A.5 pattern 2 set 1
ch6 : CPICH
ch12 : PICH (32bit 'FFFF0000' repeat)
ch2-3, 7-11: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)

```

### DCP22540

```

Pattern Contents (No.15:DCP22540)
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Downlink compressed mode Test1

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (Normal frame)
ch5 : DL-DPCH (Compressed frame)
      TS25.101 v5.4.0 Annex A.3.1
      DL reference measurement channel 12.2 kbps
      TS25.101 v5.4.0 Annex A.5 pattern 2 set 2
ch6 : CPICH
ch12 : PICH (32bit 'FFFF0000' repeat)
ch2-3, 7-11: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)

```

- \* Scrambling code number = 80 HEX: DCP21548
- \* Scrambling code number = 90 HEX: DCP21549

- DCP22548
- DCP22549

### DCP23540

```

Pattern Contents (No.16:DCP23540)
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Downlink compressed mode Test1

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (Normal frame)
ch5 : DL-DPCH (Compressed frame)
      TS25.101 v5.4.0 Annex A.3.1
      DL reference measurement channel 12.2 kbps
      TS25.101 v5.4.0 Annex A.5 pattern 2 set 3
ch6 : CPICH
ch12 : PICH (32bit 'FFFF0000' repeat)
ch2-3, 7-11: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)

```

- \* Scrambling code number = 80 HEX: DCP23548
- \* Scrambling code number = 90 HEX: DCP23549

- \* P-CCPCH: 11 bits SFN is mapped on BCH.
- \* OCNS: PN9 that added offset to initial value in each code  
OCNS of one frame cycle which reset PN9 in each frame

### BTFD1s0

```

Pattern Contents (No. 2:BTFD1s0 )
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Blind transport format detection (rate 1)

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (30 kbps)
      3G TS25.101 v5.4.0 Annex A.4
      DL reference measurement channel
      for BTFD 12.2 kbps

ch5 : PICH
ch6 : CPICH
ch2-3, 7-12: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)
      Scrambling code number = 00h

```

### BTFD2s0

```

Pattern Contents (No. 3:BTFD2s0 )
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Blind transport format detection (rate 2)

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (30 kbps)
      3G TS25.101 v5.4.0 Annex A.4
      DL reference measurement channel
      for BTFD 7.95 kbps

ch5 : PICH
ch6 : CPICH
ch2-3, 7-12: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)
      Scrambling code number = 00h

```

- \* Scrambling code number = 80 HEX: BTFD1s8
- \* Scrambling code number = 90 HEX: BTFD1s9

- BTFD2s8
- BTFD2s9

### BTFD3s0

```

Pattern Contents (No. 4:BTFD3s0 )
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Blind transport format detection (rate 3)

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (30 kbps)
      3G TS25.101 v5.4.0 Annex A.4
      DL reference measurement channel
      for BTFD 1.95 kbps

ch5 : PICH
ch6 : CPICH
ch2-3, 7-12: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)
      Scrambling code number = 00h

```

### PCHs0

```

Pattern Contents (No.22:PCHs0 )
Channel combination : TS25.101 V5.4.0 Annex C3.2
for Performance requirement
Demodulation of PCH TEST1
ch1 : P-CCPCH + P/S-SCH
ch4 : PCH (30 kbps)
      3G TS25.101 V5.4.0 Annex A.6
      DL reference measurement channel for PCH

ch5 : PICH
ch6 : CPICH
ch2-3, ch7-12: OFF
Add ch: OCNS (TS25.101 V5.4.0 table C.6)
      Scrambling code number = 00h

```

- \* Scrambling code number = 80 HEX: BTFD3s8
- \* Scrambling code number = 90 HEX: BTFD3s9

- PCHs8
- PCHs9

- \* P-CCPCH: 11 bits SFN is mapped on BCH.
- \* PICH: Conformity to TS25.141 6.1.1.6.2 PICH
- \* OCNS: PN9 that added offset to initial value in each code  
OCNS of one frame cycle which reset PN9 in each frame

### F1P0s0

Pattern Contents (No.21:F1P0s0 )  
 Channel combination : TS25.101 V5.7.0 Annex C5.1  
 for Performance requirement HSDPA (ver. 1.00)

ch1 : P-CCPCH + P/S-SCH  
 ch2 : CPICH  
 ch4 : DL-DPCH (RMC 12.2kbps)  
 ch5 : HS-SCCH (Xccs=40h(P=5,0=1),Xrs=0,Xtbs=29h,  
 Xhap=0to5,Xrv=0,Xnd=0/1,Xue=0)

ch6-11: OCN5 (PN9)  
 ch12 : PICH (Dummy)  
 Add ch: HS-PSCH (FRC QPSK H-Set1 RV=0)  
 Channelization Code = 1,2,3,4,5  
 Scrambling code number = 00h

### F1A0s0

Pattern Contents (No.20:F1A0s0 )  
 Channel combination : TS25.101 V5.7.0 Annex C5.1  
 for Performance requirement HSDPA (ver. 1.00)

ch1 : P-CCPCH + P/S-SCH  
 ch2 : CPICH  
 ch4 : DL-DPCH (RMC 12.2kbps)  
 ch5 : HS-SCCH (Xccs=30h(P=4,0=1),Xrs=1,Xtbs=24h,  
 Xhap=0to5,Xrv=0,Xnd=0/1,Xue=0)

ch6-11: OCN5 (PN9)  
 ch12 : PICH (Dummy)  
 Add ch: HS-PSCH (FRC 16QAM H-Set1 RV=0)  
 Channelization Code = 1,2,3,4  
 Scrambling code number = 00h

### F2P0s0

Pattern Contents (No.23:F2P0s0 )  
 Channel combination : TS25.101 V5.7.0 Annex C5.1  
 for Performance requirement HSDPA (ver. 1.00)

ch1 : P-CCPCH + P/S-SCH  
 ch2 : CPICH  
 ch4 : DL-DPCH (RMC 12.2kbps)  
 ch5 : HS-SCCH (Xccs=40h(P=5,0=1),Xrs=0,Xtbs=29h,  
 Xhap=0to5,Xrv=0,Xnd=0/1,Xue=0)

ch6-11: OCN5 (PN9)  
 ch12 : PICH (Dummy)  
 Add ch: HS-PSCH (FRC QPSK H-Set2 RV=0)  
 Channelization Code = 1,2,3,4,5  
 Scrambling code number = 00h

### F2A0s0

Pattern Contents (No.22:F2A0s0 )  
 Channel combination : TS25.101 V5.7.0 Annex C5.1  
 for Performance requirement HSDPA (ver. 1.00)

ch1 : P-CCPCH + P/S-SCH  
 ch2 : CPICH  
 ch4 : DL-DPCH (RMC 12.2kbps)  
 ch5 : HS-SCCH (Xccs=30h(P=4,0=1),Xrs=1,Xtbs=24h,  
 Xhap=0to5,Xrv=0,Xnd=0/1,Xue=0)

ch6-11: OCN5 (PN9)  
 ch12 : PICH (Dummy)  
 Add ch: HS-PSCH (FRC 16QAM H-Set2 RV=0)  
 Channelization Code = 1,2,3,4  
 Scrambling code number = 00h

### F3P0s0

Pattern Contents (No.25:F3P0s0 )  
 Channel combination : TS25.101 V5.7.0 Annex C5.1  
 for Performance requirement HSDPA (ver. 1.00)

ch1 : P-CCPCH + P/S-SCH  
 ch2 : CPICH  
 ch4 : DL-DPCH (RMC 12.2kbps)  
 ch5 : HS-SCCH (Xccs=40h(P=5,0=1),Xrs=0,Xtbs=29h,  
 Xhap=0to5,Xrv=0,Xnd=0/1,Xue=0)

ch6-11: OCN5 (PN9)  
 ch12 : PICH (Dummy)  
 Add ch: HS-PSCH (FRC QPSK H-Set3 RV=0)  
 Channelization Code = 1,2,3,4,5  
 Scrambling code number = 00h

### F3A0s0

Pattern Contents (No.24:F3A0s0 )  
 Channel combination : TS25.101 V5.7.0 Annex C5.1  
 for Performance requirement HSDPA (ver. 1.00)

ch1 : P-CCPCH + P/S-SCH  
 ch2 : CPICH  
 ch4 : DL-DPCH (RMC 12.2kbps)  
 ch5 : HS-SCCH (Xccs=30h(P=4,0=1),Xrs=1,Xtbs=24h,  
 Xhap=0to5,Xrv=0,Xnd=0/1,Xue=0)

ch6-11: OCN5 (PN9)  
 ch12 : PICH (Dummy)  
 Add ch: HS-PSCH (FRC 16QAM H-Set3 RV=0)  
 Channelization Code = 1,2,3,4  
 Scrambling code number = 00h

### F4P0s0

Pattern Contents (No.26:F4P0s0 )  
 Channel combination : TS25.101 V5.7.0 Annex C5.1  
 for Performance requirement HSDPA (ver. 1.01)

ch1 : P-CCPCH + P/S-SCH  
 ch2 : CPICH  
 ch4 : DL-DPCH (RMC 12.2kbps)  
 ch5 : HS-SCCH (Xccs=40h(P=5,0=1),Xrs=0,Xtbs=29h,  
 Xhap=0to5,Xrv=0,Xnd=0/1,Xue=0)

ch6-11: OCN5 (PN9)  
 ch12 : PICH (Dummy)  
 Add ch: HS-PSCH (FRC QPSK H-Set4 RV=0)  
 Channelization Code = 1,2,3,4,5  
 Scrambling code number = 00h

### F5P0s0

Pattern Contents (No.27:F5P0s0 )  
 Channel combination : TS25.101 V5.7.0 Annex C5.1  
 for Performance requirement HSDPA (ver. 1.00)

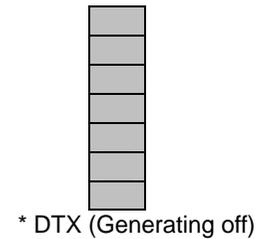
ch1 : P-CCPCH + P/S-SCH  
 ch2 : CPICH  
 ch4 : DL-DPCH (RMC 12.2kbps)  
 ch5 : HS-SCCH (Xccs=40h(P=5,0=1),Xrs=0,Xtbs=29h,  
 Xhap=0to5,Xrv=0,Xnd=0/1,Xue=0)

ch6-11: OCN5 (PN9)  
 ch12 : PICH (Dummy)  
 Add ch: HS-PSCH (FRC QPSK H-Set5 RV=0)  
 Channelization Code = 1,2,3,4,5  
 Scrambling code number = 00h

- \* P-CCPCH: 11 bits SFN is mapped on BCH.
- \* DL\_DPCH: DPCH\_Ec/Ior conforms to BLER=10<sup>-2</sup> of "Demodulation of DCH".
- \* PICH: Conformity to TS25.141 6.1.1.6.2 PICH

\* HS-SCCH:

H-Set 1 [H]	Q	P	S	K									16	-	Q	A	M														
Channelization-code-set information (xccs)	40			40								40					30			30				30				30			
Modulation scheme information (xms)	0			0								0					1			1				1				1			
Transport-block size information (xtbs)	29			29								29					24			24				24				24			
Hybrid-ARQ process information (xhap)	0			1								0					0			1				0				1			
Redundancy and constellation version (xrv)	0			0								0					0			0				0				0			
New data indicator (xnd)	0			0								1					0			0				1				1			
UE identity (xue)	0			0								0					0			0				0				0			
H-Set 2 [H]	Q	P	S	K									16	-	Q	A	M														
Channelization-code-set information (xccs)	40		40		40		40		40		40		40		40		30		30		30		30		30		30		30		
Modulation scheme information (xms)	0		0		0		0		0		0		0		0		1		1		1		1		1		1		1		
Transport-block size information (xtbs)	29		29		29		29		29		29		29		29		24		24		24		24		24		24		24		
Hybrid-ARQ process information (xhap)	0		1		2		0		1		2		0		1		0		1		2		0		1		2		0		
Redundancy and constellation version (xrv)	0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		
New data indicator (xnd)	0		0		0		1		1		1		1		1		0		0		0		0		1		1		1		
UE identity (xue)	0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		
H-Set 3 [H]	Q	P	S	K									16	-	Q	A	M														
Channelization-code-set information (xccs)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	30	30	30	30	30	30	30	30	30	30	30	30	30		
Modulation scheme information (xms)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1		
Transport-block size information (xtbs)	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	24	24	24	24	24	24	24	24	24	24	24	24	24		
Hybrid-ARQ process information (xhap)	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5	
Redundancy and constellation version (xrv)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
New data indicator (xnd)	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1		
UE identity (xue)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
H-Set 4 [H]	Q	P	S	K																											
Channelization-code-set information (xccs)			40		40							40		40																	
Modulation scheme information (xms)			0		0							0		0																	
Transport-block size information (xtbs)			29		29							29		29																	
Hybrid-ARQ process information (xhap)			0		1							0		1																	
Redundancy and constellation version (xrv)			0		0							0		0																	
New data indicator (xnd)			0		0							1		1																	
UE identity (xue)			0		0							0		0																	
H-Set 5 [H]	Q	P	S	K																											
Channelization-code-set information (xccs)			40	40	40							40	40	40																	
Modulation scheme information (xms)			0	0	0							0	0	0																	
Transport-block size information (xtbs)			29	29	29							29	29	29																	
Hybrid-ARQ process information (xhap)			0	1	2							0	1	2																	
Redundancy and constellation version (xrv)			0	0	0							0	0	0																	
New data indicator (xnd)			0	0	0							1	1	1																	
UE identity (xue)			0	0	0							0	0	0																	



\* 12 supframe (12 TTI) repeat      •----->      •----->

\* HS-PDSCH: HS-PDSCH of 6 frames (30 subframes) cycle which reset PN15 in each TTI of HS-DSCH

### DAMR18s0

```

Pattern Contents (No. 9:DAMR18s0)
Channel combination : TS25.101 V3.8.0 Annex C3.2
TR25.944 V3.5.0 DL FFR speech TFCS #1

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (30 kbps)
      3G TS25.211 V3.7.0,TS25.212,213 V3.6.0
      3G TR25.944 V3.5.0 4.1.1.3.1.1 DCDH
      4.1.1.3.1.2 FFR TFCS #1
      4.1.1.3.2.2
ch5 : PICH (3G TS25.141 V3.6.0 6.1.1.6.2 PICH)
ch6 : CPICH
ch2-3, 7-12: OFF
Add ch: OCNS (TS25.101 V3.8.0 table C.6)
      Scrambling code number = 00h

```

### DAMR28s0

```

Pattern Contents (No.10:DAMR28s0)
Channel combination : TS25.101 V3.8.0 Annex C3.2
TR25.944 V3.5.0 DL FFR speech TFCS #2

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (30 kbps)
      3G TS25.211 V3.7.0,TS25.212,213 V3.6.0
      3G TR25.944 V3.5.0 4.1.1.3.1.1 DCDH
      4.1.1.3.1.2 FFR TFCS #2
      4.1.1.3.2.2
ch5 : PICH (3G TS25.141 V3.6.0 6.1.1.6.2 PICH)
ch6 : CPICH
ch2-3, 7-12: OFF
Add ch: OCNS (TS25.101 V3.8.0 table C.6)
      Scrambling code number = 00h

```

- \* Scrambling code number = 80 HEX: DAMR18s8 DAMR28s8
- \* Scrambling code number = 90 HEX: DAMR18s9 DAMR28s9

### DAMR38s0

```

Pattern Contents (No.11:DAMR38s0)
Channel combination : TS25.101 V3.8.0 Annex C3.2
TR25.944 V3.5.0 DL FFR speech TFCS #3

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (30 kbps)
      3G TS25.211 V3.7.0,TS25.212,213 V3.6.0
      3G TR25.944 V3.5.0 4.1.1.3.1.1 DCDH
      4.1.1.3.1.2 FFR TFCS #3
      4.1.1.3.2.2
ch5 : PICH (3G TS25.141 V3.6.0 6.1.1.6.2 PICH)
ch6 : CPICH
ch2-3, 7-12: OFF
Add ch: OCNS (TS25.101 V3.8.0 table C.6)
      Scrambling code number = 00h

```

### DISDN8s0

```

Pattern Contents (No.17:DISDN8s0)
Channel combination : TS25.101 V3.8.0 Annex C3.2
TR25.944 V3.5.0 DL ISDN

ch1 : P-CCPCH + P/S-SCH
ch4 : DL-DPCH (120 kbps)
      3G TS25.211 V3.7.0,TS25.212,213 V3.6.0
      3G TR25.944 V3.5.0 4.1.1.3.1.1 DCDH
      4.1.1.3.1.6 ISDN
      4.1.1.3.2.5
ch5 : PICH (3G TS25.141 V3.6.0 6.1.1.6.2 PICH)
ch6 : CPICH
ch2-3, 7-12: OFF
Add ch: OCNS (TS25.101 V3.8.0 table C.6)
      Scrambling code number = 00h

```

- \* Scrambling code number = 80 HEX: DAMR38s8 DISDN8s8
- \* Scrambling code number = 90 HEX: DAMR38s9 DISDN8s9

- \* P-CCPCH: 11 bits SFN is mapped on BCH.
- \* DL\_DPCH: DPCH\_Ec/Ior conforms to BLER=10<sup>-2</sup> of "Demodulation of DCH".
- \* PICH: Conformity to TS25.141 6.1.1.6.2 PICH
- \* OCNS: PN9 that added offset to initial value in each code  
OCNS of one frame cycle which reset PN9 in each frame

### ULRMC12k

Pattern Contents (No. 8:ULRMC12k)  
Channel combination : TS25.104 V3.6.0 Annex A.2  
UL reference measurement channel for 12.2 kbps

ch1 : DPCCH slot format = #0  
ch2-3 : OFF  
ch4 : DPDPCH (60 kbps)  
3G TS25.211 V3.6.0, TS25.212,213 V3.5.0  
ch5-12: OFF  
Add ch: OFF

### ULRMC64k

Pattern Contents (No.11:ULRMC64k)  
Channel combination : TS25.104 V3.6.0 Annex A.3  
UL reference measurement channel for 64 kbps

ch1 : DPCCH slot format = #0  
ch2-3 : OFF  
ch4 : DPDPCH (240 kbps)  
3G TS25.211 V3.6.0, TS25.212,213 v3.5.0  
ch5-12: OFF  
Add ch: OFF

### ULRMC144

Pattern Contents (No. 9:ULRMC144)  
Channel combination : TS25.104 V3.6.0 Annex A.4  
UL reference measurement channel for 144 kbps

ch1 : DPCCH slot format = #0  
ch2-3 : OFF  
ch4 : DPDPCH (480 kbps)  
3G TS25.211 V3.5.0, TS25.212,213 V3.5.0  
ch5-12: OFF  
Add ch: OFF

### ULRMC384

Pattern Contents (No.10:ULRMC384)  
Channel combination : TS25.104 V3.6.0 Annex A.5  
UL reference measurement channel for 384 kbps

ch1 : DPCCH slot format = #0  
ch2-3 : OFF  
ch4 : DPDPCH (960 kbps)  
3G TS25.211 V3.6.0, TS25.212,213 V3.5.0  
ch5-12: OFF  
Add ch: OFF

## PRE

```
Pattern Contents (No. 3:PRE )
Channel combination : TS25.141 V5.4.0 Annex A.8
UL reference measurement channel
for UL RACH Preamble

ch1-3 : OFF
ch4 : UL RACH PREAMBLE
Scramble=0 Signature=0
ch5-12: OFF
Add ch: OFF
```

## R168

```
Pattern Contents (No. 4:R168 )
Channel combination : TS25.141 V5.4.0 Annex A.7
UL reference measurement channel
for UL RACH 168bits

ch1-3,6-12: OFF
ch4,5 : UL RACH 168bits
TFCI=0 Scramble=0 Signature=0
```

## R360

```
Pattern Contents (No. 5:R360 )
Channel combination : TS25.141 V5.4.0 Annex A.7
UL reference measurement channel
for UL RACH 360bits

ch1-3,6-12: OFF
ch4,5 : UL RACH 360bits
TFCI=0 Scramble=0 Signature=0
```

## C168

```
Pattern Contents (No. 1:C168 )
Channel combination : TS25.141 V5.4.0 Annex A.8
UL reference measurement channel
for UL CPCH 168bits

ch1-3,6-12: OFF
ch4,5 : UL CPCH 168bits
TFCI=0 Scramble=0,8192 Signature=0
```

## C360

```
Pattern Contents (No. 2:C360 )
Channel combination : TS25.141 V5.4.0 Annex A.8
UL reference measurement channel
for UL CPCH 360bits

ch1-3,6-12: OFF
ch4,5 : UL CPCH 360bits
TFCI=0 Scramble=0,8192 Signature=0
```

## SSDTa

```
Pattern Contents (No. 6:SSDTa )
Channel combination : TS25.141 V5.4.0 Annex A.2
UL reference measurement channel
for 12.2 kbps (SSDT)

ch1-3 : OFF
ch4 : DPCPCH (60 kbps)
ch5 : DPCCH slot format = #4 Cell ID "A"
ch6-12: OFF
Add ch: OFF
```

## SSDTb

```
Pattern Contents (No. 7:SSDTb )
Channel combination : TS25.141 V5.4.0 Annex A.2
UL reference measurement channel
for 12.2 kbps (SSDT)

ch1-3 : OFF
ch4 : DPCPCH (60 kbps)
ch5 : DPCCH slot format = #4 Cell ID "B"
ch6-12: OFF
Add ch: OFF
```

### UL\_AMR#1

```
Pattern Contents (No.12:UL_AMR#1)
Channel combination : TS25.104 V3.6.0 Annex A.1
TR25.944 V3.4.0 UL AMR speech TFCS #1

ch1 : DPCCH slot format = #0
ch2-3 : OFF
ch4 : DPDPCH (60 kbps)
      3G TS25.211 V3.6.0,TS25.212,213 V3.5.0
      3G TR25.944 v3.4.0 4.1.2.2.1.1 DCOH
                               4.1.2.2.1.2 AMR TFCS #1
                               4.1.2.2.2.2

ch5-12: OFF
Add ch: OFF
```

### UL\_AMR#2

```
Pattern Contents (No.13:UL_AMR#2)
Channel combination : TS25.104 V3.6.0 Annex A.1
TR25.944 V3.4.0 UL AMR speech TFCS #2

ch1 : DPCCH slot format = #0
ch2-3 : OFF
ch4 : DPDPCH (60 kbps)
      3G TS25.211 V3.6.0,TS25.212,213 V3.5.0
      3G TR25.944 v3.4.0 4.1.2.2.1.1 DCOH
                               4.1.2.2.1.2 AMR TFCS #2
                               4.1.2.2.2.2

ch5-12: OFF
Add ch: OFF
```

### UL\_AMR#3

```
Pattern Contents (No.14:UL_AMR#3)
Channel combination : TS25.104 V3.6.0 Annex A.1
TR25.944 V3.4.0 UL AMR speech TFCS #3

ch1 : DPCCH slot format = #0
ch2-3 : OFF
ch4 : DPDPCH (60 kbps)
      3G TS25.211 V3.6.0,TS25.212,213 V3.5.0
      3G TR25.944 v3.4.0 4.1.2.2.1.1 DCOH
                               4.1.2.2.1.2 AMR TFCS #3
                               4.1.2.2.2.2

ch5-12: OFF
Add ch: OFF
```

### UL\_ISDN

```
Pattern Contents (No.15:UL_ISDN )
Channel combination : TS25.104 V3.6.0 Annex A.1
TR25.944 V3.4.0 UL ISDN

ch1 : DPCCH slot format = #0
ch2-3 : OFF
ch4 : DPDPCH (240 kbps)
      3G TS25.211 V3.6.0,TS25.212,213 V3.5.0
      3G TR25.944 V3.4.0 4.1.2.2.1.1 DCOH
                               4.1.2.2.1.6 ISDN
                               4.1.2.2.2.5

ch5-12: OFF
Add ch: OFF
```

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Specifications are subject to change without notice.

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