APPENDIX I. Control menu description for BTS RF test

- **Please refer to user manual of BSP, RCCA, DBPA, BSM, SMPA debuger command, for concrete description concerning Control**

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1. Frequency setup procedure

a. Select FA to be tested, and input desired CDMA channel to set up transmission/receiving frequency.

b. Correlation between CDMA channel number and CDMA channel

Transmitter	CDMA Channel Number	Center Frequency for CDMA Channel (MHz)
Mobile Station	0 N 1199	0.050 N + 1850.000
Base Station	0 N 1199	0.050 N + 1930.000

c. Execute "**rfcbud -c**" command in RCPA.

    [RCCA_M][4]$ rfcbud -c 0 0

    ***** RCP[0] BUDA[0][0] Channel Number Information *****

     Current Channel Number   : 25

     Current Tx Frequency   : 1931250KHz

     Current Rx Frequency   : 1851250KHz

     Current Channel PLL Frequency : 1781250KHz

    Want to Change the Channel Number ?(0: No 1: Yes)

    >> 11

    Enter Channel Number : 25

    chNum[0][0] : 25

    CdmaChNum DualCopy OK ..

    Want to re-PLL the IF ?(0: No 1: Yes)

    >> 1

    BUDA[0][0] PLL lock .. OK

2. BUDA TX gain setup procedure

a. Adjust Gain value by setting up(0x000~0xfff) Attenuator with the "rfcbud –t **"** command on RCCA.

b. Input a value appropriate for test condition, after atten-value is assigned according to test condition based on Antenna Port output.

[RCCA_M][1]$ rfcbud -t 0 0   **Designate *FA SEC to be measured.***

Current Tx Attenuation Value : 0xbb8

Want to Change ?(0: No   1: Yes)   **Select whether to adjust gain**.

>> 1

Enter Tx Attenuation Value(Ex. b00) : 0xbba   **Designate Gain to be adjusted**.

Reading Tx Attenuation Value   : 0xaf

TxGain DualCopy OK ..

[RCCA_M][2]$

3. Digital gain setup procedure

   a.   Input desired Sector, cdma_ch(FA) with 3383 command on BSP, and change Digital Gain value.

   b.   Command to change Pilot, Sync, Paging and Traffic Gain can be changed to desired value and designates input value according to test condition. Input a given value.

   c.   Execute "**3383**" Command on BSP.

      Example)

      IS2000_BSP:NO_CCP] cc "3383"

      ---------- PN-3383 SUPPORTING FUNCTION ----------

        2. BTS RX Test Call   (NOCCP Mode)

        3. Sector TX Gain Change   (NOCCP Mode)

        4. FER Display Request   (NOCCP Mode)

        5. Access Probe Acquisition Test (CCP Mode)

        6. Automatic Release Mode Set   (CCP Mode)

        q. Quit

      Select the menu? 3

      - SECTOR TX Gain Change Function ----------

        1.   Pilot Ch Gain

        2.   Sync Ch Gain

        3.   Paging Ch Gain

        4.   Nominal TC Gain

        5.   Total Gain Display

6.   Quit

Select the menu?

- SECTOR TX Gain Change Function ----------

1.   Pilot Ch Gain   *; Pilot Channel Gain Change*

2.   Sync Ch Gain   ; *Sync Channel Gain Change*

3.   Paging Ch Gain   ;*Paging Channel Gain Change*

4.   Nominal TC Gain   ;*Traffic Channel Gain Change*

5.   Total Gain Display   *;Overhead / Traffic Channel Gain Display*

6.   Quit

Select the menu? 5

Select the menu? 5

Enter the Sector(0~5) ?0
----------- Sector [0] Gain Config -------------
PILOT   SYNC   PAGING TRAFFIC
FA[0]   234   159   217   224
FA[1]   234   159   217   224

- SECTOR TX Gain Change Function ----------

1.   Pilot Ch Gain

2.   Sync Ch Gain

3.   Paging Ch Gain

4.   Nominal TC Gain

5.   Total Gain Display

6.   Quit

Select the menu? 3
> Enter the Sector(0~5) ?0
> Enter the CDMA channel(0~11) ? 0
S(0) FA(0) PC(0) Current Paging Channel Tx Gain = 217(-9.50 dB)
> Enter Paging Tx Gain[(0:No_pwr)/(255:0 dB)/(yz:-63.75+0.25*yz dB)]:224
     ; Change paging Ch Gain from 217 to 224

Do you want to change gain(y/n)? y

- SECTOR TX Gain Change Function ----------

      7.   Pilot Ch Gain

      8.   Sync Ch Gain

      9.   Paging Ch Gain

      10. Nominal TC Gain

      11. Total Gain Display

      12. Quit

Select the menu? 5

```
Enter the Sector(0~5) ?0
----------- Sector [0] Gain Config -------------
          PILOT    SYNC   PAGING  TRAFFIC
FA[0]     234      159     224      224
FA[1]     234      159     217      224
          ------------------------------------------------
```

4. Call setup and release procedure

4.1 normal call setup procedure

    a.   **Execute 3383 command of BSP, to allocate Traffic Channel according to test standard.**

   When setting up NULL 6 Call

      IS2000_BSP T5.0] cc "noccp"

      NO_CCP MODE : OFF

      PG_RSP MODE : OFF

      NO_CHC MODE : OFF

      Do you have CCP(y/n) ? n

      Do you want PG_RSP(y/n) ? y

      Do you have TCH(y/n) ? y

      IS2000_BSP:NO_CCP] cc "3383"

---------- PN-3383 SUPPORTING FUNCTION ----------

    2. BTS RX Test Call   (NOCCP Mode)

    3. Sector TX Gain Change   (NOCCP Mode)

    4. FER Display Request   (NOCCP Mode)

    5. Access Probe Acquisition Test (CCP Mode)

    6. Automatic Release Mode Set   (CCP Mode)

    q. Quit

Select the menu? 2

> Do you want to test RF(y/n) ? y

RF Test Mode > ON <

=========== Test Mobile Information ============

1.cdmach_id =   0 2.sector_id =   0

3.pc_id   =   0 4.sci   =   2

5.call_type =   2 6.srv_option= 0x0002   7.test_data =   4

8.for_rc =   1 rev_rc =   1

a.mcc   = 0x 15d b.imsi_11_12= 0x 63 c.esn = 0xc9007372

d.MSID   : (016) 290-9000

e.No. of Phone Number List : 1

===

Do you want to change parameter(y/n)? y

=========== Test Mobile Information ============

1.cdmach_id =   0 2.sector_id =   0

3.pc_id   =   0 4.sci   =   2

5.call_type =   2 6.srv_option= 0x0002   7.test_data =   4

8.for_rc = 1 rev_rc = 1

a.mcc   = 0x 15d b.imsi_11_12= 0x 63 c.esn = 0xc9007372

d.MSID   : (016) 290-9000

e.No. of Phone Number List : 1

===

which item do change? 1

> Input the CDMA_CH_ID(0x0~0xb/0xfe(all)) : 0x0   *FA 0*

which item do change? 2

> Input the SECTOR_ID(0x0~0x5/0xfe(all)) : 0x0   *alpha sector*

which item do change? 3

> Input the PC_ID(0~6) : 0   *Paging CH ID 0*

which item do change?4

> Input the Slot Cycle Index(0~7) : 2   *SCI 2*

which item do change? 5
> Input the Call Type[0(Normal)/1(Markov)/2(Loopback)/3(BTU)/4(Null)/7(OCNS)]? 4
0(Normal) : Normal call. Interworking is available to MS and BSC. Speech call, Markoc call, Loop
              Back call are available, according to Service Option.
1(Markov) : BTS independent Markov call. MS is interworked with BTS.
2(Loop Back) : BTS independent Loop Back call. MS is interworked with BTS.
3(BTU) : BTS BTU independent call. BTU MS is interworked with BTS.
4(NULL) : BTS Null Traffic test call. BTS sets up call independently without interworking with MS.

7(OCNS) : BTS Null Traffic test call. BTS sets up call independently without interworking with MS.

which item do change?6

> Enter the Service Option [0x2(Loopback)/0x9(Loopback_13K)] : 0x2

which item do change? 7

> Enter the Test Data[0(Blank)/1(Eigth)/2(Quarter)/3(Half)/4(Full)/5(Variable)] ?4

which item do change?8

> Input Forward RC (1/3/4) : 1

> Do you want to change RC(y/n) ?y

 Changed For_RC = 1

> Input Reverse RC (1/3)   : 1

> Do you want to change RC(y/n) ?y

 Changed Rev_RC = 1

which item do change?a

> Enter the MCC [0x15d] : 0x15d

which item do change? b

> Enter the IMSI_11_12 [0x63] : 0x63

which item do change? c

> Input Termination Phone ESN   [0xc9007372] : 0xc9007372

which item do change? d

> Enter the Paging Mobile Station Number [(016) 100-0000] ? (016) 290-9000

hich item do change? e

> Input the No. of Phone Number List : 6

=========== Test Mobile Information ============

1.cdmach_id =   0 2.sector_id =   0

3.pc_id   =   0 4.sci   =   2

5.call_type =   4 6.srv_option= 0x0002   7.test_data =   4

8.for_rc = 1 rev_rc = 1

a.mcc   = 0x   15d b.imsi_11_12= 0x   63 c.esn = 0xc9007372

d.MSID   : (016) 290-9000

e.No. of Phone Number List : 6

===

which item do change?

q

 Do you want to simulate general page(y/n)? y

CCP->BSP : general_page (016) 290-9000

PCE<-BSP :(J196) GENPAGE_CAI(S0,FA0) [12800803 630000](J196:timer 12120)

ACE->BSP : page_rspnse (S:0 FA:0 PC:0 rtd:2560[2560]) (016) 290-9000

PCE<-BSP :(J196) SND_MOB_ORDER(ord[10],ordq[00],status[0]) ADDR[12800803:630000]

CCP<-BSP :(J196) PAGE_RSP_IND(NORMAL) W/ BTS_ONLY_CALL (timer 640)

rc_fix_flag = 1, fixed_rc = 1/1

CCP->BSP :(J196) assign_req (fo:5/5 CON[LK: 10 CID: 100 T: 0-816 S: 0-416])

        * {0, 12}

> ALLOC_RESOURCE (J196): DRU CHC CSM MOD DEMOD (0/2/1/ 0/ 0), F_RC R_RC [1, 1]

CCP<-BSP :(J196) ASSIGN_RSPS (status:0) W/ NO_CCP

ATM<-BSP :(J196) CONNECT_REQ

        * lica (S_O : 0-416 (0-1a0) S_IN: 10-496 (a-1f0) L: 0-10)

        * appd (T_O : 0-816 (0-330) T_IN: 10-432 (a-1b0) CID: 100) (timer 10

00)

PCE->BSP :(J196) tx_ota(BTS_ONLY_CALL)

>> ERROR (cp_hdlr.c,4982): TX_OTA Not Found Job196 State(1d)

LICA->BSP :(J196) atm_connect_ack (id 0, reason 0)

APPD->BSP :(J196) atm_connect_ack (id 0, reason 0)

TCE<-BSP :(J196) TC_MOB_ASSIGN addr[12800803 320002] idx[2] (timer 1500)

TCE->BSP :(J196) tc_assign_ack (timer 5000)

CCP->BSP :(J196) ecam_transfer

PCE<-BSP :(J196) PC_CH_ASSIGN (timer 5000)

TCE->BSP :(J196) sel_link_on w/ mob_acq (120 ms)

PCE->BSP :(J196) tx_ota(BTS_ONLY_CALL)

         ; As such, six Null Traffic calls are set up.

When attempting call again, parameters value of previous set call is regarded as Default.

4.2 call Release setup procedure

a. Execute **"rel"** command on BSP, to release Traffic Channel.

b. The command is to forcibly release call for the whole BTS and by FA/Sector. It is used when releasing test call etc. using 3383 command. And **never use the command at Site**.

call release of IS2000_BSP] cc "rel j 12" *job_id 12*

Other Task->CALLP : RELEASE_CALLS

TCE<-BSP :(J12) TC_CALL_REL(0) addr[12800805 320002] idx[4]

CCP<-BSP :(J12) RELEASE_IND(0) (timer 500)

CCP->BSP :(J12) RELEASE [Processing Operation is Normal(0)] (016) 290-9005

>> INFO (cp_genrl.c, 3084): J201 is already free (s:ff, MSG_ID:0341)

IS2000_BSP] cc "rel all" *; Every FA, call release of every sector*

4.3 Loopback call setup procedure

IS2000_BSP T5.0] cc "noccp"

NO_CCP MODE : OFF

PG_RSP MODE : OFF

NO_CHC MODE : OFF

Do you have CCP(y/n) ? n

Do you want PG_RSP(y/n) ? n

Do you have TCH(y/n) ? y

IS2000_BSP:NO_CCP] cc "3383"

---------- PN-3383 SUPPORTING FUNCTION ----------

  2. BTS RX Test Call   (NOCCP Mode)

  3. Sector TX Gain Change   (NOCCP Mode)

  4. FER Display Request   (NOCCP Mode)

  5. Access Probe Acquisition Test (CCP Mode)

  6. Automatic Release Mode Set   (CCP Mode)

  q. Quit

Select the menu? 2

=========== Test Mobile Information ============

1.cdmach_id =   0 2.sector_id =   0

3.pc_id   =   0 4.sci   =   2

5.call_type =   2 6.srv_option= 0x0002   7.test_data =   4

8.for_rc = 1 rev_rc = 1

a.mcc   = 0x 15d b.imsi_11_12= 0x   b c.esn = 0x11111111

d.MSID   : (016) 290-2017

e.No. of Phone Number List : 1

===

which item do change? q

Do you want to simulate general page(y/n)? y

5. NOCCP mode setup procedure

a. Execute **noccp** command on BSP.

The command is to enable BTS to execute independently, without interworking with the upper(BSC) when

processing call. For message interworked with CCP by BSP and message interworked with TC by SVC,

the BCP and TC perform simulation in themselves. Test calls, such as BTS independent Markov call and

Loop Back call etc. can be set up, and BTS performs Loop Back for speech call, therefore, MS hears its voice. Under the enviroment that interworking with upper CCP is not available, the command is used for testing BTS and verifying the BTS itself. And never use the command at Site environement..

IS2000_BSP T5.0] cc "noccp"

NO_CCP MODE : OFF

PG_RSP MODE : OFF

NO_CHC MODE : OFF

   Do you have CCP(y/n) ? n   *;NO CCP Environment Setup*

  Do you want PG_RSP(y/n) ? n

  Do you have TCH(y/n) ? y