**KAOSS PAD KP3+ MIDI Implementation Revision 1.0 (2013.1.28)**

# Transmitted Data

## Channel Messages [H]:Hex, [D]:Decimal

+--------+----------+----------+---------------------------------------------+

| Status | Second | Third | Description (Transmitted by ) |

| [Hex] | [H] [D] | [H] [D] | |

+--------+----------+----------+---------------------------------------------+

| 8n | kk (kk) | 40 (64) | Note Off (Sample Bank) |

| 8n | dd (dd) | dd (dd) | Note Off (Ext.Ctrl Mode) |

| 9n | kk (kk) | 64 (100) | Note On (Sample Bank) |

| 9n | dd (dd) | dd (dd) | Note On (Ext.Ctrl Mode) |

| Bn | 00 (00) | mm (mm) | Bank Select(MSB) (Panel Control) \*1 |

| Bn | 20 (32) | bb (bb) | Bank Select(LSB) (Panel Control) \*1 |

| Bn | cc (cc) | vv (vv) | Control Change (Panel Control/Ext.Ctrl)|

| Cn | pp (pp) | -- -- | Program Change (Panel Control) \*1 |

| Cn | dd (dd) | -- -- | Program Change (Ext.Ctrl Mode) |

+--------+----------+----------+---------------------------------------------+

n : MIDI Channel = 0~15

kk : Note# 0~127

dd : Data = 0~127

cc : Control Change# = 0~127

vv : Value = 0~127

\*1 : Program MIDI [Hex] [Dec]

Program 000 - 127 mm,bb,pp = 00,00,00~7F / 00,00,000~127

Program 128 - 149 00,01,00~15 / 00,01,000~021

## System Realtime Messages

+-----------+-------------------------------------------+

| Status[H] | Description |

+-----------+-------------------------------------------+

| F8 | Timing Clock \*2 |

| FA | Start \*3 |

| FB | Continue \*3 |

| FC | Stop \*3 |

| FE | Active Sensing |

+-----------+-------------------------------------------+

\*2 : This message is transmitted when the "Clock" is set to "Internal".

\*3 : Transmitted when in Ext.Ctrl mode.

## Universal System Exclusive Messages ( Non Realtime )

Device Inquiry Reply

+---------+---------------------------------------------+

| Byte[H] | Description |

+---------+---------------------------------------------+

| F0 | Exclusive Status |

| 7E | Non Realtime Message |

| 0g | Global MIDI Channel ( Device ID ) |

| 06 | General Information |

| 02 | Identity Reply |

| 42 | KORG ID ( Manufacturers ID ) |

| 1A | KAOSS PAD KP3+ ID ( Family ID (LSB)) |

| 01 | ( Family ID (MSB)) |

| 00 | ( Member ID (LSB)) |

| 00 | ( Member ID (MSB)) |

| xx | ( Minor Ver. (LSB)) |

| xx | ( Minor Ver. (MSB)) |

| xx | ( Major Ver. (LSB)) |

| xx | ( Major Ver. (MSB)) |

| F7 | End Of Exclusive |

+---------+---------------------------------------------+

This message is transmitted whenever an INQUIRY MESSAGE REQUEST is received.

## KAOSS PAD KP3+ System Exclusive Message Transmitted Command List

Structure of KAOSS PAD KP3+ System Exclusive Messages

+- -+ -+

| 1st Byte = 1111 0000 (F0) : Exclusive Status | |

| 2nd Byte = 0100 0010 (42) : KORG ID | |

| 3rd Byte = 0011 nnnn (3g) : Format ID g:MIDI Channel |Ex.Header |

| 4th Byte = 0000 0000 (00) : KAOSS PAD KP3+ ID | |

| 5th Byte = 0000 0001 (01) : | |

| 6th Byte = 0001 1010 (1A) : | |

| 7th Byte = 0fff ffff (ff) : Function Code -+ |

| 8th Byte = 0ddd dddd (dd) : Data |

| : : : |

| LastByte = 1111 0111 (F7) : End of Exclusive |

+- -+ -+

Function ID Code List

+-------------+-------------------------------------+-----+

| Function ID | Description/Function | |

| [Hex] | | |

+-------------+-------------------------------------+-----+

| 4C | 1 Program Memory Data Dump | R |

| 4E | Sample Header Data Dump | R |

| 4F | Sample Data Dump | R |

| 51 | Global Data Dump | R |

| 21 | Write Completed | E |

| 22 | Write Error | E |

| 27 | Sample Receive Ready | R |

| 28 | Irregular Mode Error | R,E |

| 29 | Irregular Condition Error | R,E |

+-------------+-------------------------------------+-----+

Transmitted when

R : Request Message is received.

E : Exclusive Message is received.

# Recognized Receive Data

## Channel Messages

+--------+----------+----------+---------------------------------------------+

| Status | Second | Third | Description |

| [Hex] | [H] [D] | [H] [D] | |

+--------+----------+----------+---------------------------------------------+

| 9n | kk (kk) | vv (vv) | Note On vv=1~127 |

| Bn | 00 (00) | mm (mm) | Bank Select(MSB) (Program) \*4 |

| Bn | 20 (32) | bb (bb) | Bank Select(LSB) (Program) \*4 |

| Bn | cc (cc) | vv (vv) | Control Change |

| Cn | pp (pp) | -- -- | Program Change \*4 |

+--------+----------+----------+---------------------------------------------+

n : MIDI Channel = 0~15

kk : Note# 0~127

dd : Data = 0~127

cc : Control Change# = 0~127

vv : Value = 0~127

\*4 : Program MIDI [Hex] [Dec]

Program 000 - 127 mm,bb,pp = 00,00,00~7F / 00,00,000~127

Program 128 - 149 00,01,00~15 / 00,01,000~021

## System Realtime Messages

+-----------+-------------------------------------------+

| Status[H] | Description |

+-----------+-------------------------------------------+

| F8 | Timing Clock \*5 |

+-----------+-------------------------------------------+

\*5 : This message is recognized when the "Clock" is set to "Ext" or "Auto".

## Universal System Exclusive Message (Non Realtime)

Inquiry Message Request

+---------+---------------------------------------------+

| Byte[H] | Description |

+---------+---------------------------------------------+

| F0 | Exclusive Status |

| 7E | Non Realtime Message |

| gg | Global MIDI Channel |

| 06 | General Information |

| 01 | Identity Request |

| F7 | End Of Exclusive |

+---------+---------------------------------------------+

gg = 00~0F :Received if Global Channel

7F :Received on any Channel

## KAOSS PAD KP3+ System Exclusive Message Received Command List

Function ID Code List

+-------------+-----------------------------------------+

| Function ID | Description/Function |

| [Hex] | |

+-------------+-----------------------------------------+

| 0E | Global Data Dump Request |

| 1C | 1 Program Memory Data Dump Request |

| 1E | Sample Data Dump Request |

| 27 | Sample Receive Ready |

| 4C | 1 Program Memory Data Dump |

| 4E | Sample Header Data Dump |

| 4F | Sample Data Dump |

| 51 | Global Data Dump |

+-------------+-----------------------------------------+

When the "SystemEx" parameter is set to "ENA", these messages are recognized.

# MIDI Exclusive Format (R:Receive, T:Transmit) --------------------------

## Global Data Dump Request R,-

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0000 1110 (0E) | Global Data Dump Request |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Receive this message, and transmits Func=51 message.

## 1 Program Memory Data Dump Request R,-

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0001 1100 (1C) | 1 Program Memory Data Dump Request |

| 0000 0ppp (0p) | Program Memory No.(0~7) |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Receive this message, and transmits Func=4C message.

## Sample Data Dump Request R,-

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0001 1110 (1E) | 1 Sample Data Dump Request |

| 0000 00ss (0s) | ss:Sample Bank No.(0~3) |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Receive this message, and transmits Func=4E message.

## 1 Program Memory Data Dump R,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0100 1100 (4C) | 1 Program Memory Data Dump |

| 0000 0ppp (0p) | Program Memory No.(0~7) |

| 0ddd dddd (dd) | Data (NOTE 1,4) |

| : | : |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Receive this message & data, save them to Edit Buffer and transmits Func=21 or Func=22 message.

Receive Func=1C message, and transmits this message & data from Edit Buffer.

## Sample Header Data Dump R,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0100 1110 (4E) | Sample Header Data Dump |

| 0000 00ss (0s) | ss:Sample Bank No.(0~3) |

| 0ddd dddd (dd) | Data (NOTE 3,4) |

| : | : |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Receive this message & data, transmits Func=27 message.

Receive Func=1E message, and transmits this message & data from Edit Buffer.

## Sample Data Dump R,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0100 1111 (4F) | Sample Data Dump |

| 0000 0000 (00) | dummy Data |

| 0000 0000 (00) | dummy Data |

| 0ddd dddd (dd) | Data (NOTE 4) |

| : | : |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Receive this message & data, transmits Func=21 or Func=22 message.

Receive Func=27 message, and transmits this message & data from Edit Buffer.

## Global Data Dump R,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0101 0001 (51) | Global Data Dump |

| 0ddd dddd (dd) | Data (NOTE 2,4) |

| : | : |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Receive this message & data, save them to Internal Memory and transmits Func=21 or Func=22 message.

Receive Func=0E message, and transmits this message & data from Edit Buffer.

## Write Completed -,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0010 0001 (21) | Write Completed |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

When "DATA LOAD" has been completed, transmits this message.

## Write Error -,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0010 0010 (22) | Write Error |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

When "DATA LOAD" has not been completed, transmits this message.

## Sample Receive Ready R,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0010 0111 (27) | Sample Receive Ready |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Receive Func=4E message, and transmits this message.

## Irregular Mode Error (in USB Mode) -,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0010 1000 (28) | Irregular Mode Error |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Transmits this message when Func messages have been received in USB mode.

## Irregular Condition Error (Sampling) -,T

+-------------------+---------------------------------------------------------------+

| Byte | Description |

+-------------------+---------------------------------------------------------------+

| F0,42,3g,00,01,1A | KAOSS PAD KP3+ Exclusive Header g;Global Channel [Hex] |

| 0010 1001 (29) | Irregular Condition Error |

| 1111 0111 (F7) | End of Exclusive (EOX) |

+-------------------+---------------------------------------------------------------+

Transmits this message when Func messages have been received while Sampling.

NOTE 1: Program Memory Data Dump Format

702Bytes = 7\*100+2 -> (7+1)\*100+(2+1) => 803Bytes

(TABLE 1)

NOTE 2: Global Data Dump Format

256Bytes = 7\*36+4 -> (7+1)\*36+(4+1) => 293Bytes

(TABLE 2)

NOTE 3: Sample Header Data Dump Format

16Bytes = 7\*2+2 -> (7+1)\*2+(2+1) => 19Bytes

(TABLE 3)

NOTE 4: The Dump Data Conversion

Data (1set = 8bit x 7Byte)

b7 ~ b0 b7 ~ b0 b7 ~~ b0 b7 ~ b0

+-+-+-+-+-+-+-+-+ +-+-+-+-+-+-+-+-+ +-+-+-~~-+-+-+ +-+-+-+-+-+-+-+-+

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

+-+-+-+-+-+-+-+-+ +-+-+-+-+-+-+-+-+ +-+-+-~~-+-+-+ +-+-+-+-+-+-+-+-+

7n+0 7n+1 7n+2 ~~ 7n+5 7n+6

MIDI Data (1set = 7bit x 8Byte)

b7b7b7b7b7b7b7 b6 ~ b0 b6 ~~ b0 b6 ~ b0

+-+-+-+-+-+-+-+-+ +-+-+-+-+-+-+-+-+ +-+-+-~~-+-+-+ +-+-+-+-+-+-+-+-+

|0| | | | | | | | |0| | | | | | | | |0| | | | | |0| | | | | | | |

+-+-+-+-+-+-+-+-+ +-+-+-+-+-+-+-+-+ +-+-+-~~-+-+-+ +-+-+-+-+-+-+-+-+

7n+6,5,4,3,2,1,0 7n+0 7n+1 ~~ 7n+5 7n+6

# TABLE 1 : Program Memory Parameter

+-----------+-------------------+-----------------------------------+

| No. (bit)| PARAMETER | VALUE DESCRIPTION |

+-----------+-------------------+-----------------------------------+

| 0 | Memorized Program#| 0~149 |

+-----------+-------------------+-----------------------------------+

| 1 B1~7 | not use | (0,0,0,0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0 | Hold SW | 0/1=Off/On |

+-----------+-------------------+-----------------------------------+

| 2,3 | Holded PadX Value | 0~1023 |

+-----------+-------------------+-----------------------------------+

| 4,5 | Holded PadY Value | 0~1023 |

+-----------+-------------------+-----------------------------------+

| 6 B7 | not use | (0) |

| -------+-------------------+-----------------------------------+

| B0~6 | Fx Depth Value | 0~127 |

+-----------+-------------------+-----------------------------------+

| 7~19 | (dummy bytes) |

+-----------+-------------------+-----------------------------------+

| Pad Motion Setting |

+-----------+-------------------+-----------------------------------+

| 20 | Motion Condition | 0~ |

+-----------+-------------------+-----------------------------------+

| 21 | (dummy bytes) |

+-----------+-------------------+-----------------------------------+

| 22~25 | Motion Top Address| |

+-----------+-------------------+-----------------------------------+

| 26~29 | Motion End Address| |

+-----------+-------------------+-----------------------------------+

| 30~701 | Pad Motion Data | |

+-----------+-------------------+-----------------------------------+

# TABLE 2 : Global Parameter

+-----------+-------------------+-----------------------------------+

| No. (bit)| PARAMETER | VALUE DESCRIPTION |

+-----------+-------------------+-----------------------------------+

| 0 B3~7 | not use | (0,0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0~2 | Last Prog Memo# | 0~7=Program Memory 1~8 |

+-----------+-------------------+-----------------------------------+

| 1 B4~7 | not use | (0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0~3 | Pad LED Setting | 0~10=Off/Chara/Type.1~8/Chain |

+-----------+-------------------+-----------------------------------+

| Pad LED Screen Saver Character |

+-----------+-------------------+-----------------------------------+

| 2 B7 | not use | (0) |

| -------+-------------------+-----------------------------------+

| B0~6 | 1st Character | ASCII code (20~7F) |

+-----------+-------------------+-----------------------------------+

| 3 | 2nd Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 4 | 3rd Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 5 | 4th Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 6 | 5th Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 7 | 6th Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 8 | 7th Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 9 | 8th Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 10 | 9th Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 11 | 10th Character | (same as 1st Character) |

+-----------+-------------------+-----------------------------------+

| 12 | (reserved) | (0,0,0,0,0,0,0,0) |

+-----------+-------------------+-----------------------------------+

| 13 B1~7 | not use | (0,0,0,0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0 | Pad ProgName Disp | 0/1=Disable/Enable |

+-----------+-------------------+-----------------------------------+

| 14 B2~7 | not use | (0,0,0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0,1 | Mesg Scroll Time | 0/1/2=Slow/Middle/Fast |

+-----------+-------------------+-----------------------------------+

| 15 | (reserved) |

+-----------+-------------------+-----------------------------------+

| MIDI Filter Setting |

+-----------+-------------------+-----------------------------------+

| 16 B5~7 | not use | (0,0,0) |

| -------+-------------------+-----------------------------------+

| B4 | System Exclusive | 0/1=Disable/Enable |

| -------+-------------------+-----------------------------------+

| B3 | Note | 0/1=Disable/Enable |

| -------+-------------------+-----------------------------------+

| B2 | Control Change | 0/1=Disable/Enable |

| -------+-------------------+-----------------------------------+

| B1 | Program Change | 0/1=Disable/Enable |

| -------+-------------------+-----------------------------------+

| B0 | not use | (0) |

+-----------+-------------------+-----------------------------------+

| 17 B2~7 | not use | (0,0,0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0,1 | Clock Setting | 0~2=Internal/External/Auto |

+-----------+-------------------+-----------------------------------+

| 18,19 | BPM Value | 200~3000=BPM:20.0~300.0 |

+-----------+-------------------+-----------------------------------+

| 20 | Last LoopSmplTrig | 0~3=--/-G/R-/RG |

+-----------+-------------------+-----------------------------------+

| 21 | Last ShotSmplTrig | 0/1=R-/RG (Reset,Gate) |

+-----------+-------------------+-----------------------------------+

| 22 | (reserved) |

+-----------+-------------------+-----------------------------------+

| 23 | Smpl Loop Length | 0~4=1,2,4,8,16 Beat |

+-----------+-------------------+-----------------------------------+

| 24~31 | (dummy bytes) |

+-----------+-------------------+-----------------------------------+

| MIDI Message Assignment |

+-----------+-------------------+-----------------------------------+

| 32 B4~7 | not use | (0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0~3 | Global MIDI Ch. | 0~15=1~16 |

+-----------+-------------------+-----------------------------------+

| 33 | SmplBankA Assign | 0~127=Note#, 128~:Off |

+-----------+-------------------+-----------------------------------+

| 34 | SmplBankB Assign | (same as SmplBankA Assign Format) |

+-----------+-------------------+-----------------------------------+

| 35 | SmplBankC Assign | (same as SmplBankA Assign Format) |

+-----------+-------------------+-----------------------------------+

| 36 | SmplBankD Assign | (same as SmplBankA Assign Format) |

+-----------+-------------------+-----------------------------------+

| 37 | PadX-direc Assign | 0~127=ControlChange#, 128~:Off |

+-----------+-------------------+-----------------------------------+

| 38 | PadY-direc Assign | (same as PadX-direc Assign Format)|

+-----------+-------------------+-----------------------------------+

| 39 | Pad Touch Assign | (same as PadX-direc Assign Format)|

+-----------+-------------------+-----------------------------------+

| 40 | Fx Depth Assign | (same as PadX-direc Assign Format)|

+-----------+-------------------+-----------------------------------+

| 41 | Slider Assign | (same as PadX-direc Assign Format)|

+-----------+-------------------+-----------------------------------+

| 42 | Hold SW Assign | (same as PadX-direc Assign Format)|

+-----------+-------------------+-----------------------------------+

| 43~63 | (dummy bytes) |

+-----------+-------------------+-----------------------------------+

| External Control Mode |

+-----------+-------------------+-----------------------------------+

| 64 B4~7 | not use | (0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0~3 | External Setting# | 0~6=Pattern1~7 |

+-----------+-------------------+-----------------------------------+

| 65~79 | (dummy bytes) |

+-----------+-------------------+-----------------------------------+

| 80 B7 | SmplBankA Status | 0/1=NoAssign/Assign Enable |

| -------+-------------------+-----------------------------------+

| B6 | SmplBankA SW Type | 0/1=Momentary/Toggle |

| -------+-------------------+-----------------------------------+

| B4,5 | RealTime Assign | 0/1/2/3=non/Start/Continue/Stop |

| -------+-------------------+-----------------------------------+

| B0~3 | SmplBankA MIDI Ch.| 0~15=1~16 |

+-----------+-------------------+-----------------------------------+

| 81 B7 | SBankA Assign Type| 0/1=Note# Assign/CC# Assign |

| -------+-------------------+-----------------------------------+

| B0~6 | SmplBankA Assign# | 0~127 CC:CC#, Note:Note# |

+-----------+-------------------+-----------------------------------+

| 82 B7 | not use | (0) |

| -------+-------------------+-----------------------------------+

| B0~6 | SBA NoteOff Value | 0~127 |

+-----------+-------------------+-----------------------------------+

| 83 B7 | not use | (0) |

| -------+-------------------+-----------------------------------+

| B0~6 | SBA NoteOn Value | 0~127 |

+-----------+-------------------+-----------------------------------+

| 84~87 | SmplBankB Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 88~91 | SmplBankC Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 92~95 | SmplBankD Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 96~99 | ProgMemo1 Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 100~103 | ProgMemo2 Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 104~107 | ProgMemo3 Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 108~111 | ProgMemo4 Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 112~115 | ProgMemo5 Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 116~119 | ProgMemo6 Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 120~123 | ProgMemo7 Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 124~127 | ProgMemo8 Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 128~131 | Hold SW Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 132~135 | Pad Touch Assign | (same as Ext.SBankA Assign Format)|

+-----------+-------------------+-----------------------------------+

| 136 B7 | Fx Depth Status | 0/1=NoAssign/Assign Enable |

| -------+-------------------+-----------------------------------+

| B4~6 | not use | (0,0,0) |

| -------+-------------------+-----------------------------------+

| B0~3 | Fx Depth MIDI Ch. | 0~15=1~16 |

+-----------+-------------------+-----------------------------------+

| 137 B7 | not use | (0) |

| -------+-------------------+-----------------------------------+

| B0~6 | FxDepth CC Number | 0~127 |

+-----------+-------------------+-----------------------------------+

| 138 B7 | not use | (0) |

| -------+-------------------+-----------------------------------+

| B0~6 | FxDepth Max Value | 0~127 |

+-----------+-------------------+-----------------------------------+

| 139 B7 | not use | (0) |

| -------+-------------------+-----------------------------------+

| B0~6 | FxDepth Min Value | 0~127 |

+-----------+-------------------+-----------------------------------+

| 140~143 | Slider Assign | (same as Ext.Fx Depth Asgn Format)|

+-----------+-------------------+-----------------------------------+

| 144~191 | (dummy bytes) |

+-----------+-------------------+-----------------------------------+

| 192 B7 | Pad 1 Asgn Status | 0/1=NoAssign/Assign Enable |

| -------+-------------------+-----------------------------------+

| B4~6 | not use | (0,0,0) |

| -------+-------------------+-----------------------------------+

| B0~3 | Pad 1 MIDI Ch. | 0~15=1~16 |

+-----------+-------------------+-----------------------------------+

| 193 B7 | not use | (0) |

| -------+-------------------+-----------------------------------+

| B0~6 | Pad 1 CC Number | 0~127 |

+-----------+-------------------+-----------------------------------+

| 194,195 | (Pad 1 reserved) | |

+-----------+-------------------+-----------------------------------+

| 196~199 | Pad 2 Assign | (same as Ext.Pad 1 Assign Format) |

+-----------+-------------------+-----------------------------------+

| 200~203 | Pad 3 Assign | (same as Ext.Pad 1 Assign Format) |

+-----------+-------------------+-----------------------------------+

| 204~207 | Pad 4 Assign | (same as Ext.Pad 1 Assign Format) |

+-----------+-------------------+-----------------------------------+

| 208~211 | Pad 5 Assign | (same as Ext.Pad 1 Assign Format) |

+-----------+-------------------+-----------------------------------+

| 212~215 | Pad 6 Assign | (same as Ext.Pad 1 Assign Format) |

+-----------+-------------------+-----------------------------------+

| 216~219 | Pad 7 Assign | (same as Ext.Pad 1 Assign Format) |

+-----------+-------------------+-----------------------------------+

| 220~223 | Pad 8 Assign | (same as Ext.Pad 1 Assign Format) |

+-----------+-------------------+-----------------------------------+

| 224~255 | (dummy bytes) |

+-----------+-------------------+-----------------------------------+

# TABLE 3 : Sample Header Parameter

+-----------+-------------------+-----------------------------------+

| No. (bit)| PARAMETER | VALUE DESCRIPTION |

+-----------+-------------------+-----------------------------------+

| 0~3 | Sample DSP Address| 0(= no Sample)~ |

+-----------+-------------------+-----------------------------------+

| 4~7 | Sample Length | (60 / BPM \* fs \* BeatNum) <<10 |

+-----------+-------------------+-----------------------------------+

| 8,9 | Sample BPM Value | 200~3000=BPM:20.0~300.0 |

+-----------+-------------------+-----------------------------------+

| 10 | Smpl Trigger Type | Lp:0~3=--/-G/R-/RG,Shot:0/1 |

+-----------+-------------------+-----------------------------------+

| 11 | Slice Bit Pattern | Slice 1~8 Off/On: 0/1 |

+-----------+-------------------+-----------------------------------+

| 12 | Sample Beat | 0~4=1,2,4,8,16beat |

+-----------+-------------------+-----------------------------------+

| 13 B1~7 | not use | (0,0,0,0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0 | Sample Type | 0/1=OneShot/Loop |

+-----------+-------------------+-----------------------------------+

| 14 B3~7 | not use | (0,0,0,0,0) |

| -------+-------------------+-----------------------------------+

| B0~2 | DSP SampleMemory# | 0~4 |

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| 15 B7 | not use | (0) |

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| B0~6 | Sample Player Lvl | 0~127 |

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- Revision History -

Rev 1.0 Jan.28.'13 Initial Release.