

# VIVO S7pro/S7pro M/S3pro MIDI IMPLEMENTATION

## 1. Received data

### ■ Channel Voice Messages

#### ● Note off

Status	2nd byte	3rd byte
--------	----------	----------

8nH	kkH	ccH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*kk* = note number: 00H~7FH (0~127)

*cc* = note off velocity: 00H~7FH (0~127)

#### ● Note on

Status	2nd byte	3rd byte
--------	----------	----------

9nH	kkH	vvH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*kk* = note number: 00H~7FH (0~127)

*vv* = note off velocity: 00H~7FH (0~127)

• Not received when Rx.STATUS = OFF. (Initial value is ON)

### ■ Control Change

#### ● Bank Sound Select (Controller number 0, 32)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	00H	mmH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*mm* = Bank number MSB: 00H~7FH (Initial value= 00H)

#### ● Modulation (Controller number 1)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	01H	vvH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Modulation depth: 00H~7FH (0~127)

• Not received when Rx.MODULATION= OFF (Initial value is ON).

#### ● Volume (Controller number 7)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	07H	vvH
-----	-----	-----

*n* = MIDI channel number 0H~FH (Ch.1~16)

*vv* = Volume: 00H~7FH (0~127),

• Not received when Rx.VOLUME= OFF (Initial value is ON).

#### ● Panpot (Controller number 10)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	0AH	vvH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = pan: 00H~40H~7FH (Left~Center~Right). Initial value= 40H (Center)

• Not received when Rx.PANPOT= OFF (Initial value is ON).

#### ● Expression (Controller number 11)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	0BH	vvH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Expression: 00H~7FH (0~127), Initial value= 7FH (127)

• Not received when Rx.EXPRESSION = OFF. (Initial value is ON)

#### ● Hold (Controller number 64)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	40H	vvH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Control value: 00H~7FH (0~127)

• Not received when Rx.HOLD = OFF. (Initial value is ON)

#### ● Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	42H	vvH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Control value: 00H~7FH (0~127) 0~63= OFF, 64~127= ON

• Not received when Rx.SOSTENUTO= OFF. (Initial value is ON)

#### ● Soft (Controller number 67)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	43H	vvH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Control value: 00H~7FH (0~127) 0~63= OFF, 64~127= ON

• Not received when Rx.SOFT= OFF. (Initial value is ON)

#### ● Reverb Send Level (Controller number 91)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	5BH	vvH
-----	-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Reverb Send Level: 00H~7FH (0~127)

• This message adjusts the Reverb Send Level of each Part.

• Not received when Rx.REVERB= OFF. (Initial value is ON)

#### ● Program Change

Status	2nd byte
--------	----------

CnH	ppH
-----	-----

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*pp* = Program number: 00H~7FH (prog.1~prog.128)

• Not received when Rx.PG= OFF. (Initial value is ON)

### ● Pitch Bend Change

Status            2nd byte            3rd byte

EnH                lIH                    mmH

*n = MIDI channel number: 0H~FH (Ch.1~16)*

*mm, ll = Pitch Bend value: 00 00H~40 00H~7F 7FH (-8192~0~+8191)*

- Not received when Rx.PB= OFF. (Initial value is ON)

### ■ Channel Mode Messages

#### ● All Sounds Off (Controller number 120)

Status            2nd byte            3rd byte

BnH                78H                    00H

*n = MIDI channel number: 0H~FH (Ch.1~16)*

*When the message is received, all notes currently sounding on the corresponding channel will be turned Off.*

#### ● Reset All Controllers (Controller number 121)

Status            2nd byte            3rd byte

BnH                79H                    00H

*n = MIDI channel number: 0H~FH (Ch.1~16)*

- When this message is received, the following controllers will be set to their reset values.

*Controller Reset value:*

*Pitch Bend Change +/-0 (center)*

*Modulation 0 (off)*

*Expression 127 (max)*

*Hold 1 0 (off)*

*Sostenuto 0 (off)*

*Soft 0 (off)*

#### ● All Notes Off (Controller number 123)

Status            2nd byte            3rd byte

BnH                7BH                    00H

*n = MIDI channel number: 0H~FH (Ch.1~16)*

*When All Notes Off is received, all notes on the corresponding channel will be turned off. However, if Hold 1 or Sostenuto is ON, the sound will be continued until these are turned off.*

### ■ System Realtime Messages

#### ● Active Sensing

Status

FEH

- This message is transmitted at intervals of approximately 250 ms.

### ■ Memory RX

**Midi Message Value**

**Memory**

CC00

0~8

BANK : 1,2,3,4,5,6,7,8,9

PG

0~8

NUMBER: 1,2,3,4,5,6,7,8,9,

- Default MIDI channel is 15

*Example:*

- to receive Memory 1.1 send CC00=0, PG=0
- to receive Memory 4.2 send CC00=3, PG=1
- Not received when "Memory RX Status" is Off.

## 2. Transmitted data

### ■ Channel Voice Messages

#### ● Note off

Status	2nd byte	3rd byte
8nH	kkH	ccH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*kk* = note number: 00H~7FH (0~127)

*cc* = note off velocity: 00H~7FH (0~127)

#### ● Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*kk* = note number: 00H~7FH (0~127)

*vv* = note off velocity: 00H~7FH (0~127)

### ■ Control Change

#### ● Bank Select (Controller number 0, 32)

Status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*mm* = Bank number MSB: 00H~7FH

*ll* = Bank number LSB: 00H~7FH

• Not transmitted when "PG" Tx is Off.

#### ● Modulation (Controller number 1)

Status	2nd byte	3rd byte
BnH	01H	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Modulation depth: 00H~7FH (0~127)

• Not transmitted when "Modulation" TX is OFF.

#### ● Volume (Controller number 7)

Status	2nd byte	3rd byte
BnH	07H	vvH

*n* = MIDI channel number 0H~FH (Ch.1~16)

*vv* = Volume: 00H~7FH (0~127), Initial value= 64H (100)

• Not transmitted when "Volume" TX is off.

#### ● Pan (Controller number 10)

Status	2nd byte	3rd byte
BnH	0AH	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = pan: 00H~40H~7FH (Left~Center~Right),

• The stereo position can be adusted in 127 steps.

• Not transmitted when "PanPot" RX is Off

#### ● Expression (Controller number 11)

Status	2nd byte	3rd byte
BnH	0BH	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Expression: 00H~7FH (0~127), Initial value= 7FH (127)

• This adjusts the volume of a Part. It can be used independently from Volume messages. Expression messages are used for musical expression within a performance, e.g., expression pedal movements, crescendo and decrescendo.

• Not transmitted when "Expression" TX is Off.

#### ● Hold (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Control value: 00H~7FH (0~127)

• Not transmitted when "Hold" TX is Off.

#### ● Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
BnH	42H	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Control value: 00H~7FH (0~127) 0~63= OFF, 64~127= ON

• Not transmitted when "Sostenuto" TX is Off.

#### ● Soft (Controller number 67)

Status	2nd byte	3rd byte
BnH	43H	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Control value: 00H~7FH (0~127) 0~63= OFF, 64~127= ON

• Not transmitted when "Soft" TX is Off.

#### ● Reverb Send Level (Controller number 91)

Status	2nd byte	3rd byte
BnH	5BH	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Reverb Send Level: 00H~7FH (0~127)

• This message adjusts the Reverb Send Level of each Part.

• Not transmitted when "Reverb" TX is Off.

#### ● CC 2~6 (General Control)

Status	2nd byte	3rd byte
BnH	5DH	vvH

*n* = MIDI channel number: 0H~FH (Ch.1~16)

*vv* = Chorus Send Level: 00H~7FH (0~127)

### ● CC 8, 9 (General Control)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	5DH	vvH
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

*vv= Parameter Send Level: 00H~7FH (0~127)*

### ● CC 12~63 (General Control)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	5DH	vvH
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

*vv= Parameter Send Level: 00H~7FH (0~127)*

### ● CC 68~90 (General Control)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	5DH	vvH
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

*vv= Parameter Send Level: 00H~7FH (0~127)*

### ● CC 92~119 (General Control)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	5DH	vvH
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

*vv= Parameter Send Level: 00H~7FH (0~127)*

### ● Program Change

Status	2nd byte
--------	----------

CnH	ppH
-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

*pp= Program number: 00H~7FH (prog.1~prog.128)*

• *Not transmitted when "PG" TX is Off.*

### ● Pitch Bend Change

Status	2nd byte	3rd byte
--------	----------	----------

EnH	llH	mmH
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

*mm, ll= Pitch Bend value: 00 00H~40 00H~7F 7FH (-8192~0~+8191)*

• *Not transmitted when "PB" TX Event is Off.*

## ■ Channel Mode Messages

### ● All Sounds Off (Controller number 120)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	78H	00H
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

### ● Reset All Controllers (Controller number 121)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	79H	00H
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

### ● Local ON/OFF (Controller number 122)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	7AH	vvH
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

*vv= Parameter Send Level: 00H~7FH (0~127)*

### ● All Notes Off (Controller number 123)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	7BH	00H
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

• *When All Notes Off is received, all notes on the corresponding channel will be turned off. However, if Hold 1 or Sostenuato is ON, the sound will be continued until these are turned off.*

### ● OMNI OFF (Controller number 124)

Status	2nd byte	3rd byte
--------	----------	----------

BnH	7CH	00H
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

### ● OMNI ON (Controller number 125)

Status	2nd byte
--------	----------

BnH	7DH	00H
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

### ● MONO (Controller number 126)

Status	2nd byte
--------	----------

BnH	7EH	mmH
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

*mm= mono number: 00H~10H (0~16)*

### ● POLY (Controller number 127)

Status	2nd byte
--------	----------

BnH	7FH	00H
-----	-----	-----

*n= MIDI channel number: 0H~FH (Ch.1~16)*

## ■ System Realtime Messages

### ● Active Sensing

Status

FEH

- This message is transmitted at intervals of approximately 250 ms.
- Not transmitted when "Active sensing" is Off.

### ■ Memory TX

<b>Midi Message</b>	<b>Value</b>	<b>Memory</b>
CC00	0~8	BANK : 1,2,3,4,5,6,7,8,9
PG	0~8	NUMBER: 1,2,3,4,5,6,7,8,9,

- Default MIDI channel is 15
- Not transmitted when "Memory TX Status" is Off.

## ■ MIDI CONTROLLERS

### ● Midi Controllers C1~C6 (assignable from CC1 to CC127)

Status	2nd byte	3rd byte
BnH	01H~7FH	vvH

*n= MIDI channel number 0H~7FH (Ch.1~16)*

*vv= Control Value: 00H~7FH (0~127),*

- Not transmitted when "C1~C6 to MIDI" button is off.
- Each midi controller is assignable from CC1 to CC127