# VIVO H7/H3/H1 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 is 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 is 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 "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)*

• *Not received when "Expression" RX 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 received when "Hold" RX 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 received when "Sostenuto" RX 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 received when "Soft" RX  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 received when "Reverb" RX is Off.*

#### ● 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 "PG" RX 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 received when "PB " RX 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)*

*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.*

■ **Memory RX**

| *Midi Message* | *Value* | *Memory* |
|----------------|---------|----------|
| PG | 0~19 | MEMORY: 1~20 |

*Default MIDI channel is 15*

*Example:*

*• to receive Memory 1 send PG=0*

*• to receive Memory 20 send PG=19*

*• Not received when "Memory RX Status" is Off.*

## 2.Trasmitted 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.*

#### ● 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.*

#### ● 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),*

*• The stereo position can be adhusted in 127 steps.*

*• Not transmitted when "PanPot" RX 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.*

#### ● 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 "Program Change" TX is Off.*

### ■Memory TX

| Midi Message | Value | Memory |
|--------------|-------|--------|
| PG | 0~19 | MEMORY: 1~20 |

*Default MIDI channel is 15*

*• Not transmitted when "Memory TX Status" is Off.*