STEREO EFFECTS PROCESSOR

Model SE-50

# MIDI Implementation

Date : Jul. 18 1990

Version : 1.00

## 1.TRANSMITTED DATA

### ■System Exclusive Messages

Status
F0H System Exclusive
F7H EOX (End Of System Exclusive)

Sends patch setting parameters on an external request or a bulk dump instruction.

## 2.RECOGNIZED RECEIVE DATA

### ■Channel Voice Messages

#### ●Program Change

| Status | Second |
|---|---|
| CnH | ppH |

n = MIDI Channel 0H - FH (1 - 16)
pp = Program Number 00H - 7FH (0 - 127)

Calls a patch corresponding to the received program number.

#### ●Pitch Bend Change

| Status | Second | Third |
|---|---|---|
| EnH | llH | mmH |
| | (Data LSB) | (Data MSB) |

n = MIDI Channel 0H - FH (1 - 16)
ll = Control Value 00H - 7FH (0 - 127)
mm = Control Value 00H - 7FH (0 - 127)

Recognizes only the MSB of the 3rd byte of data.

#### ●Channel Pressure

| Status | Second |
|---|---|
| DnH | vvH |

n = MIDI Channel 0H - FH (1 - 16)
vv = Control Value 00H - 7FH (0 - 127)

#### ●Control Change

| Status | Second | Third |
|---|---|---|
| BnH | ccH | vvH |

n = MIDI Channel 0H - FH (1 - 16)
cc = Control Number 00H - 1FH (0 - 31) 40H - 5FH (64 - 95)
vv = Control Value 00H - 7FH (0 - 127)

### ■System Exclusive Messages

Status
F0H System Exclusive
F7H EOX (End Of System Exclusive)

Allows generation of a request for or writing of setting parameters of a patch or temporary area.

## 3.EXCLUSIVE COMMUNICATIONS

The SE - 50 can send and receive setting parameters to from external MIDI instruments using exclusive massages.

Bulk dumps system data or, on a patch bassis, data in the internal memory.

When set to data load mode and ready for receive status, receive exclusive messages and stores the received data into the internal memory area.

Carries out exclusive communications in accordance with protocol of Roland Exclusive Format, type IV, one way communications.

Request Data (One way) RQ1 11H

If the received exclusive message contains the adresses that match parameter addresses and the size of addresses is one or more, sends the data in these adress locations patch by patch, using data set (DT1).

The device ID is the value of MIDI channel subtracted by 1. The SE - 50 itself does not send this message.

| Byte | Description |
|---|---|
| F0H | Exclusive status |
| 41H | Manufacturer ID (Roland) |
| DEV | Device ID : DEV = 0 - FH (1ch - 16ch) |
| 37H | Model ID (SE - 50) |
| 11H | Command ID (RQ1) |
| aaH | Address MSB |
| aaH | Address |
| aaH | Address LSB |
| ssH | Size MSB |
| ssH | Size |
| ssH | Size LSB |
| sum | Checksum |
| F7H | EOX (End of Exclusive) |

Data set (One way) DT1 12H

When set to data load mode and ready for receive data, stores the received data into the internal memory.

Sends this message in the following case.

Sends the data specified by the received "Request Data".

When bulk dump is activated, sends setting parameters patch by patch.

| Byte | Description |
|---|---|
| F0H | Exclusive status |
| 41H | Manufacturer ID (Roland) |
| DEV | Device ID : DEV = 0 - FH (1ch - 16ch) |
| 37H | Model ID (SE - 50) |
| 12H | Command ID (DT1) |
| aa | Address MSB |
| aaH | Address |
| aaH | address LSB |
| ddH | Data |
| : | : |
| sum | Checksum |
| F7H | EOX (End of Exclusive) |

## 4.ADDRESS MAPPING OF PARAMETERS

The address is displayed under 7 - bit hexadecimal notation.

| Address | MSB | | LSB |
|---|---|---|---|
| 7bits Hex | 0A | CC | DD |
| Binary | 0000_00ab | 0ccc_cccc | 0ddd_dddd |

<Description>
a : System data 0/1
b : Temporary / Internal Memory 0/1

ccc_cccc : MIDI Mapping/SK Shift(System)
Patch Number(Temporary/Internal Memory)

ddd_dddd : MIDI Program Change No. (MIDI Mapping)
SK Shift Start/End(SK Shift)
Parameter Address(Temporary/Internal Memory)

Effective address of each parameter is the start address of the correcsponding block plus an offset address.