

3A

MVS Multi Format Option

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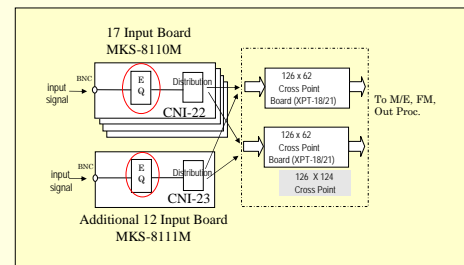
- | | |
|--------------|---------------------------|
| ■ MKS-8210M | Mix/Effect Board Set |
| ■ MKS-8440M | Frame Memory Board Set |
| ■ MKS-8110M | 17 Input Board |
| ■ MKS-8111M | Additional 12 Input Board |
| ■ MKS-8160M | 8 Output Board |
| ■ MKS-8161M | 8 Monitor Output Board |
| ■ MKS-8170M | DME Interface Board |
| | |
| ■ MKS-8210K1 | 1 M/E Upgrade Kit |
| ■ MKS-8210K2 | 2 M/E Upgrade Kit |
| ■ MKS-8440K1 | Frame Memory Upgrade Kit |

1. Feature

- HD/SD Switch-able
- Upper compatibility with the existing boards.
- Hardware structure for easy upgrading

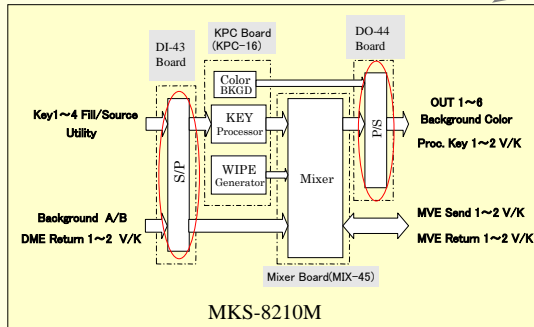
2. Structure

2-1 Input scheme



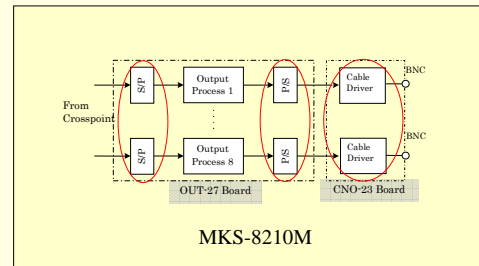
Using equalizer supporting multi format

2-2 M/E scheme



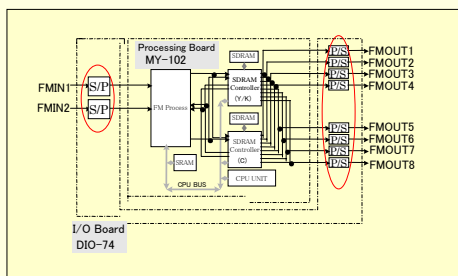
Using P/S S/P supporting multi format

2-3 Output scheme



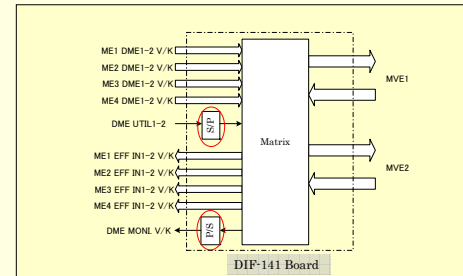
Using P/S-S/P-Cable Driver supporting multi format

2-4 Frame memory



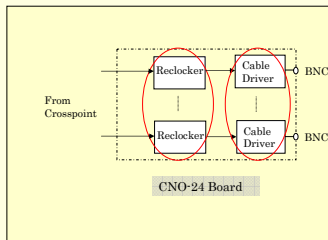
Using P/S-S/P supporting multi format

2-5 MVE I/F scheme



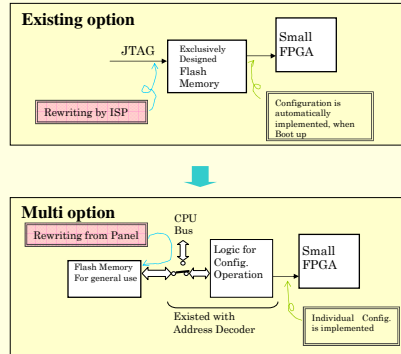
Using P/S-S/P supporting multi format

2-6 Monitor out scheme



Using Reclocker-Cable Driver supporting multi format

2-7 Change of the configuration



2-8 Key device

Function	Model Name	Remarks
S/P (De-Serializer)	GS-1561	3.3 / 1.8 V 0.65mmQFP
P/S (Serializer)	GS-1532	3.3 / 1.8 V 0.65mmQFP
Reclocker	GS-1535	3.3 V
Equalizer	GS-1524	3.3 V
Cable Driver	GS-1528	3.3 V

All devices are manufactured by Gennum

- Low power consumption
 - No adjustment required
 - Normal QFP/SOP
- Repair/Replacement can be performed more easily than the current options.

2-9 Power supply

- Low Power Consumption:
5V is no longer existing.
- Replaced 2.5V device(FPGA) for 1.8V device (2.5V still exists in DIF only.)
- Used No Zepher:
- DC-DC converter (Replacement becomes possible in repair work.)

3. Upgrading and intermingled installation with HD/SD boards

3-1. Basic upgrading

- M/E (MKS-8210HD/SD)
 - Frame Memory (MKS-8440HD/SD)
- } Using the upgrading kit for a multi version
- Input (MKS-8110HD/SD, MKS-8111SD)
 - Output (MKS-8160HD/SD)
 - Monitor Output (MKS-8161HD/SD)
 - DME I/F (MKS-8170HD/SD)
- } Replacing with multi format version

3-2. Intermingle of input and output

- For the multi formatted system, below mentioned boards can be used:

- MKS-8110HD/SD
- MKS-8111SD
- MKS-8160HD/SD

However, certain inputs (outputs) become HD or SD exclusive.

- When MKS-8160M & MKS-8160HD/SD are to be intermingled:

- The top slot (CPU equipped board) must be MKS-8160M.

3-2. Contents of upgrading kit

- MKS-8210K1 1 M/E Upgrade Kit
 - DI-43 board (1 board)
 - DO-44 board (1 board)
- MKS-8440K1 Frame Memory Upgrade Kit
 - DIO-74 board (1 board)

To replace with existing board (DI/DO/DIO)
(No particular setting is necessary for MDX board, etc.)

On MKS-8210K2 2 M/E Upgrade Kit :

Contents are:

- DI-43 board (2 board)
- DO-44 board (2 board)
- XPT-21 board (2 board)

This kit provides XPT for replacing for SD machine using XPT-18 board.
(The price is the same from K1 x 2)
By the CTO configurator, the necessary number of K1 & K2 is selected.

4. Cautions

4-1. Software version

- Required V1.35 and higher version to operate multi format boards.

4-2. System delay and input window

- In general, IC of multi format device has larger internal delay.



- In V1.35 or later, it supports both modes of multi format and standard format (Existing mode) in system delay.

- Further, in multi compatible mode, it establishes 2 kinds of mode such as Window-prioritized mode and Re-entry-prioritized mode.

- In V1.35, it is to set using DIP SW on the CA board.

System Delay Mode Setting on V1.35

ON: : Window-priority (CA-44 S101)

ON: multi format is available



Both Bit1/2 SW is OFF; Existing mode:
When the multi option is not available, this setting is recommended.
(No change at Window)



Only Bit2 is ON ; Multi (Reentry prioritized) mode:
Recommended setting for the Multi 4M/E
(Window becomes narrow 2uS in HD and 1.5uS in SD)



Both Bit1/2 SW is ON; Multi (Window-prioritized) mode:
Recommended setting for up to the Multi 3M/E
(NO change at Window and acceptable reentry is up to 3 stages)

4-3. Performance compensation switch of input board

• SW at the MKS-8110M/8111M (and 8111HD, suffix -12).



• The compensation is to absorb some subtle characteristic difference measured from the old XPT-18 board.
(As for the optimized setting value, it will be informed by technical memo.)

Questions?

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