

12G/6G/3G/HD/SD/ASI Routing Switcher

MFR-4100/6100

12G-SDI

8K SUPER
HI-VISION
SHV

4K ULTRA
HD

FOR.A[®]

12G/6G/3G/HD/SD/ASI Routing Switcher
MFR-4100/6100



With 12G-SDI*¹ or 6G-SDI compatibility across all inputs and outputs, the MFR-4100/6100 brings powerful support to 4K routing.

The MFR-4100 supports up to 72 inputs/72 outputs and the MFR-6100 supports up to 144 inputs/144 outputs. Building on the solid MFR series performance, those units inspire confidence thanks to their redundant design. With 12G-SDI support, 4K signals are carried over a single cable, resulting in less space needed for equipment and easier setup.

Lineup

MFR-4100

- Max. 72 in/72 out matrix in a 7 RU frame
- Up to 8 input cards and 8 output cards, with nine channels per card

MFR-6100

- Max. 144 in/144 out matrix in a 13 RU frame
- Up to 16 input cards and 16 output cards, with nine channels per card

Multi-format video input and output

Support for 12G*¹/6G/3G/HD/SD-SDI and DVB-ASI*² input and output. With auto signal detection, there's no need to worry about signal formats.



Video I/O Cards

	12G-SDI support		6G-SDI support	
	MFR-9SDI12GA* ³	MFR-9SDO12GA	MFR-9SDI* ³	MFR-9SDO* ⁴
Supported formats	12G/6G/3G/HD/SD-SDI	12G/6G/3G/HD/SD-SDI	6G/3G/HD/SD-SDI/DVB-ASI	6G/3G/HD/SD-SDI/DVB-ASI
BNC	9	9	9	9

*¹ MFR-9SDI12GA and MFR-9SDO12GA are required *² The number of installed cards are limited when the MFR-9SDI12GA and the MFR-9SDI are installed together *³ MFR-9SDI and MFR-9SDO are required *⁴ To be released

Features to maintain a stable system

SDI input signal error detection*⁵

Alerts in the GUI*⁶ inform the user of any SDI input signal errors (CRC/TRS). This supports solid operation as a 12G-SDI system.

*⁵ When equipped with MFR-9SDI12GA *⁶ To check error details, use a waveform monitor.

Jitter cleaning*^{7*8}

Reduce jitter in SDI signals to ensure stable signals sent to downstream equipment.

*⁷ MFR-9SDI12GA/MFR-9SDO12GA are required. *⁸ IP signals not synchronized to REF (e.g., SMPTE ST 2022-6), or signals converted to SDI from TS or other formats, may contain large low-frequency fluctuations (wander components) accompanied by frequency deviation drift. The jitter cleaning function performs internal signal processing within the "MFR-9SDI12GA" and "MFR-9SDO12GA" to stabilize 12G-SDI. As a result, if an SDI signal containing large low-frequency fluctuation components is received, it may not be processed correctly and may cause errors in the output SDI. Please consider a system-wide solution for such signals, such as routing them through a Frame Synchronizer rather than connecting them directly to this unit.

Front control panel

Equipped with a control panel for menu display. Error display possible, when needed.

SNMP support

Can be integrated into an SNMP monitoring system. Enables monitoring of various operational status, such as power, fan, and CPU status, SDI signal input*⁸, and crosspoint errors. If system failure and recovery occur, SNMP traps are sent to managers.

*⁸ MFR-9SDI12GA required

Outstanding redundancy

Can be configured with redundant CPUs and power supplies (optional). As core system components, FOR-A routing switchers can incorporate redundancy to ensure nonstop operation in case of problems.

Improved usability

Matrix partition capability

One routing switcher can be virtually partitioned to build any theoretical hierarchy, creating possibilities for use in various operations.

Application Examples

■ 4K/8K switcher (supporting crosspoint)

4K and 8K signal switching with coordinated control of multiple crosspoints

■ 4K/HD simul-switcher

Simulcast operations involving separate or simultaneous control of 4K and HD material

■ Fully independent switching

Use a single enclosure as multiple routing switchers by partitioning a configuration. Ideal for operation equivalent to multiple units without sharing sources.

■ V/Key linking switcher

Divide the matrix into two partitions for coordinated control of video and key signals.

GUI-based configuration

A built-in webserver enables immediate setup without installing software on external devices.

Versatile crosspoint control

Besides typical crosspoint switching, the unit enables a variety of crosspoint control:

■ Salvo ■ Take ■ Link ■ Level ■ Chop

Interface expansion units

Two types of interface expansion units are available:

- MFR-TALM: Tally Manager
- MFR-GPI: GPI Unit

Connectivity with other products

Can be remote-controlled through the Ethernet or serial ports. Compatibility with common protocols such as TSL and HARRIS, which enables tally linkage*⁹ or auto source name tracking for crosspoint switching*⁹. Routing switcher are also integrated with FOR-A's exclusive interface to our line of HVS production switchers and standalone multi-viewers.

*⁹ MFR-9SDI12GA/MFR-9SDO12GA are required.



- MFR routing switcher crosspoints can be controlled from HVS video switchers.
- Integrated management of source names by MFR, which automatically send source names to HVS and MV multi viewers.

- HVS and MFR exchange tally information with each other.
- Source names and tally linkage between MFR and MV are controlled by TSL protocol.

Support varies by model and function. For details, contact your FOR-A dealer.

Optional

Remote Control Units (Up to 127 units can be connected)

Basic models	MFR-16RUW	MFR-32RUW	MFR-64RUW
Size	1RU	1RU	2RU
Buttons	16 (green)	32 (green)	64 (green)
Features	16 customizable buttons	32 customizable buttons	64 customizable buttons

Standard models	MFR-16RU	MFR-16RUD	MFR-40RU
Size	1RU	1RU	1RU
Buttons	16 (green)	16 (green)	40 (red/green/orange)
Features	16 customizable buttons	16 customizable buttons - Equipped with a status/setting menu display	- All buttons are customizable - Redundant power supply (AC adapter)

Full-featured models with display	MFR-18RUA	MFR-39RUA	MFR-16RUTA
Size	1RU	2RU	2RU half tabletop
Buttons	18 (red/green/orange)	39 (13 x 3 rows)	16 (red/green/orange)
Features	- Buttons feature an OLED display that can show source names or assigned functions (7 colors: W, Ye, Cy, G, Mg, R, B) - All buttons are customizable - Redundant power supply (AC adapter)	- Buttons feature an OLED display that can show source names or assigned functions (7 colors: W, Ye, Cy, G, Mg, R, B) - customizable function buttons (3 colors: R, G, Or) separate from main buttons - Equipped with a display showing information on current sources, destinations, and pages - Ideal as a main control unit covering the entire crosspoint setup - Redundant power supply (AC adapter)	16 customizable buttons - Buttons feature an OLED display that can show source names or assigned functions (7 colors: W, Ye, Cy, G, Mg, R, B)

For detailed specifications, please refer to the specification sheet or manual.



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