

OPERATION MANUAL

USF-105DADA


Digital Audio Distribution Amplifier

1st Edition


Precautions

Important Safety Warnings



[Operation]

 Stop	Do not place the unit in the place of high temperature and high humidity, dusty, or high vibrations. Operation other than the operating environment conditions may cause malfunction, fire, or electrical shock.
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[Transportation]

 Caution	Handle with care to avoid impact shock during transit, which may cause malfunction. When you need to transport the unit, use the original or suitable alternative packing material.
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[Circuitry Access]

 Caution	Do not remove covers, panels, casing, or access the circuitry with power applied to the unit. Turn the power off and disconnect the power cord prior to removal. Internal servicing / adjustment of unit should only be performed by qualified personnel.
 Stop	Do not touch any parts / circuitry with a high heat factor. Capacitors can retain enough electric charge to cause mild to serious shock, even after the power has been disconnected. Capacitors associated with the power supply are especially hazardous.

[Potential Hazards]

 Caution	If abnormal odors or noises are noticed coming from the unit, immediately turn the power off and disconnect the power cord to avoid potentially hazardous conditions. If problems similar to the above occur, contact an authorized service representative before attempting to operate the unit again.
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[Consumables]

 Caution	Consumable items that are used in the unit must be periodically replaced. For further details on which parts are consumables and when they should be replaced, refer to the specifications at the end of the Operation Manual. Since the service life of the consumables varies greatly depending on the environment in which they are used, such items should be replaced at an early date. For details on replacing consumable items, contact your dealer.
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Upon Receipt

USF-105DADA modules and their accessories are fully inspected and adjusted prior to shipment. Check your received items against the packing lists below. Check to ensure no damage has occurred during shipment. If damage has occurred, or items are missing, inform your supplier immediately.

◆ **USF-105DADA Box**

ITEM	QTY	REMARKS
USF-105DADA	1 each	USF-105DADA Front module USF-105DADA Rear module
CD-ROM	1	Operation Manual (PDF)
Screws	4	Rear module installation

* The USF-105DADA is used by installing into a USF-212 / USF-212S frame.

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1. 1. Prior to Starting

1-1. Overview

The USF-105DADA is a digital audio distribution amplifier that can be installed in a USF frame. The USF-105DADA supports AES/EBU signals and is capable of producing up to 5 outputs from 1 input.

LTS and Word Clock signals can be supported by changing the signal mode.

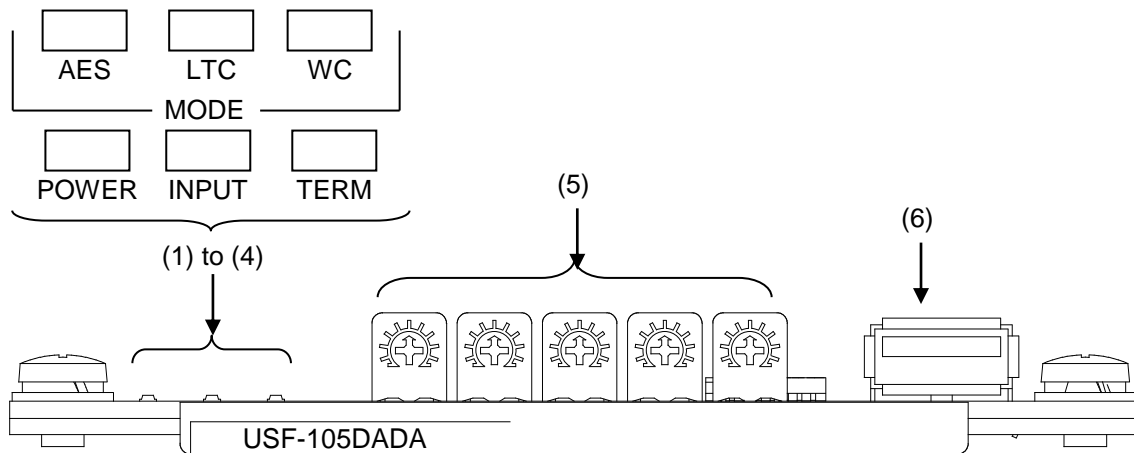
Distribution numbers can be extended using multiple USF-105DADAs.

1-2. Features

- Installs into USF frames
- 1 input 5 distribution outputs
- Supports AES/EBU, LTC or Word Clock signals for 5 distribution outputs
- Audio output gain adjustable per Out port for LTC or Word Clock signal distribution
- SNMP monitoring available (when installed into a USF-212S frame)
- Up to 4 USF-105DADA can be installed to extend distribution up to 20 outputs.
 - Limitation on installation methods may apply.

2. Panel Descriptions

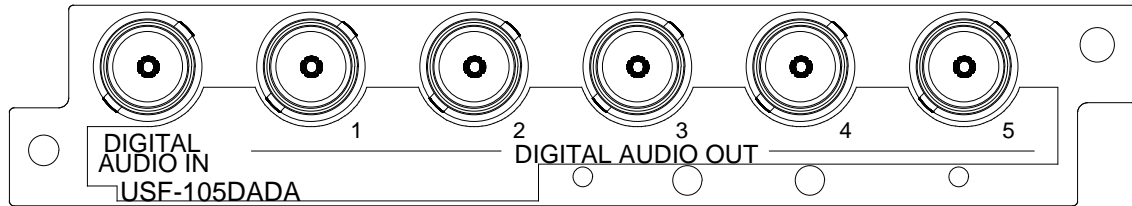
2-1. Front Panel



No.	Name	Description	
(1)	POWER LED	Lights green when normal DC power is supplied by USF frame.	
(2)	INPUT LED ^{*1}	Lights when input signal is detected.	
(3)	TERM LED	On	Input signal impedance is set to 75Ω.
		Off	Input signal impedance is set to 1kΩ.
(4)	MODE LED	On	LEDs to confirm signal mode. One of the LED from AES, LTC, or WC is lit to indicate current signal mode.
		Flash or Off	When LEDs are flashing or all LEDs are turned off, card switches are incorrectly set. See Sec. 4 "Signal Mode Settings" for correct switch settings.
(5)	OUTPUT GAIN OUT1 to OUT5	LTC/ Word Clock Distribution Mode	About ±3.0dB of gain adjustment is available per output port.
		AES Distribution Mode	Output gain is not adjustable.
(6)	USB Connector	Used for USF-105DADA software version upgrades. (Do not connect a USB device.)	

^{*1} Input is not detected when input signal is distributed via USF-212/212S Internal Bus.
INPUT LED turns off.

2-2. Rear Panel



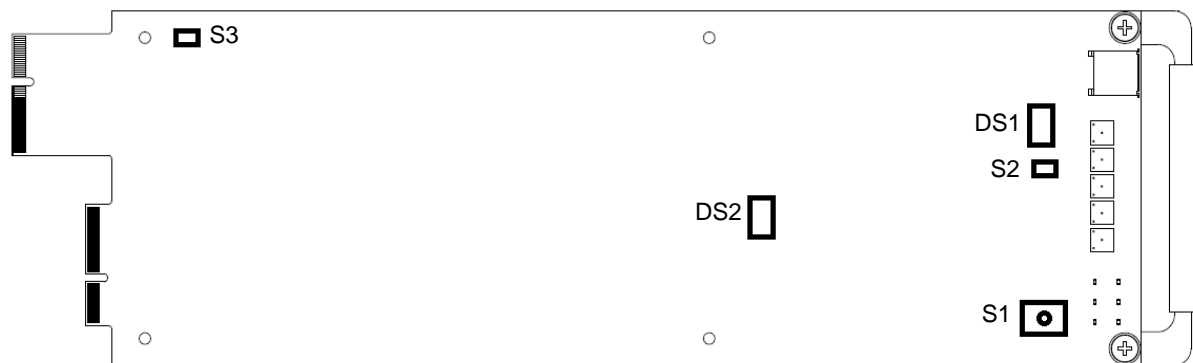
Name	Description
DIGITAL AUDIO IN	Input port. Signals compliant with the selected signal mode are input.
DIGITAL AUDIO OUT 1 - 5	Output port. Distributes 5 outputs from signals that are input in DIGITAL AUDIO IN.

IMPORTANT

Maximum 7.5Vp-p signal is output from a DIGITAL AUDIO OUT port. Check that the signal mode is set correctly and the output signal level meets the equivalent level of a connecting device to prevent damage to the device. Change the signal mode after dis-connecting the DIGITAL AUDIO OUT port, then check the output signal level before re-connection. If the signal mode has been incorrectly set, no distribution signal is output. (See Sec. 4 "Signal Mode Setting")

3. Switch Settings

◆ Switch Locations



3-1. S1: Reboot

Power Reboot switch. Pressing the switch for 1 second starts rebooting the unit.

3-2. DS1 Switches 1 and 2: Signal Mode Settings

Operation Mode	Switch 1 Setting	Switch 2 Setting
AES (Default)	OFF	OFF
LTC	ON	OFF
Word Clock	OFF	ON

Do not change Switch 3 to 8 settings. Leave them OFF.

3-3. DS2 Switches 1 and 2: Signal Mode Settings

Signal Mode	Switch 1 Setting	Switch 2 Setting
AES (Default)	OFF	OFF
LTC	ON	OFF
Word Clock	OFF	ON

Do not change the Switch 8 setting. Leave it OFF.

3-4. DS2 Switches 3 and 4: Input Signal Switch Settings

Input Signal Selection	Switch 3 Setting	Switch 4 Setting
Rear BNC Input (Default)	OFF	OFF
Internal Bus Signal 1	ON	OFF
Internal Bus Signal 2	OFF	ON
Internal Bus Signal 3	ON	ON

* Internal Bus Signals 1 to 3 are used to increase distribution by installing multiple USF-105DADAs.

Internal Bus Signal 1 to 3 varies according to the slot number in which the USF-105DADA is installed. See the table below for details.

Installed Slot No.	Internal Bus Signal 1	Internal Bus Signal 2	Internal Bus Signal 3
1	Output from Slot 2	Output from Slot 3	Output from Slot 4
2	Output from Slot 1	Output from Slot 3	Output from Slot 4
3	Output from Slot 4	Output from Slot 2	Output from Slot 1
4	Output from Slot 3	Output from Slot 2	Output from Slot 1
5	Output from Slot 6	Output from Slot 7	Output from Slot 8
6	Output from Slot 5	Output from Slot 7	Output from Slot 8
7	Output from Slot 8	Output from Slot 6	Output from Slot 5
8	Output from Slot 7	Output from Slot 6	Output from Slot 5
9	Output from Slot 10	Output from Slot 11	Output from Slot 12
10	Output from Slot 9	Output from Slot 11	Output from Slot 12
11	Output from Slot 12	Output from Slot 10	Output from Slot 9
12	Output from Slot 11	Output from Slot 10	Output from Slot 9

* When distributing signals from an Internal Bus, USF-105DADA Internal Bus output signals should be set to "Enable." Do not change Switch 8 setting. Keep it OFF.

3-5. DS2 Switch 5, 6, and 7: Internal Bus Switch Output Settings

DS2	Internal Bus Output Setting
Switch 5 Setting	ON: Outputs to Internal Bus 1. OFF: Does not output to Internal Bus 1. (Default)
Switch 6 Setting	ON: Outputs to Internal Bus 2. OFF: Does not output to Internal Bus 2. (Default)
Switch 7 Setting	ON: Outputs to Internal Bus 3. OFF: Does not output to Internal Bus 3. (Default)

Installed Slot No.	Internal Bus Signal 1	Internal Bus Signal 2	Internal Bus Signal 3
1	Output to Slot 2	Output to Slot 3	Output to Slot 4
2	Output to Slot 1	Output to Slot 3	Output to Slot 4
3	Output to Slot 4	Output to Slot 2	Output to Slot 1
4	Output to Slot 3	Output to Slot 2	Output to Slot 1
5	Output to Slot 6	Output to Slot 7	Output to Slot 8
6	Output to Slot 5	Output to Slot 7	Output to Slot 8
7	Output to Slot 8	Output to Slot 6	Output to Slot 5
8	Output to Slot 7	Output to Slot 6	Output to Slot 5
9	Output to Slot 10	Output to Slot 11	Output to Slot 12
10	Output to Slot 9	Output to Slot 11	Output to Slot 12
11	Output to Slot 12	Output to Slot 10	Output to Slot 9
12	Output to Slot 11	Output to Slot 10	Output to Slot 9

3-6. Switch S2: MODE Set

Sets distribution mode settings.

Setting		Distribution Mode Settings
S2:MODE SET 1 ⇔ 3 AES LTC/WC		AES distribution mode (Default) Set the switch toward AES.
S2:MODE SET 1 ⇔ 3 AES LTC/WC		LTC distribution mode / Word Clock distribution mode Set the switch toward LTC/WC.

3-7. Switch S3: TERM Set

Sets input signal impedance.

Adjusts with input signal impedance in USF-105DADA.

Setting	Input Signal Impedance and Distribution Mode Settings
 S3:TERM SET 3 ⇔ 1 1KΩ 75Ω	Set impedance to 75Ω (default) in AES distribution mode.
 S3:TERM SET 3 ⇔ 1 1KΩ 75Ω	Set impedance to 1kΩ in LTC / Word Clock distribution mode.

4. Signal Mode Settings

Three signal modes are available using USF-105DADA.

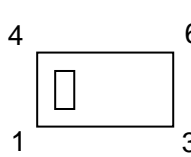
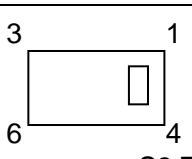
AES Distribution Mode	Inputs and distributes digital audio signals. Inputs AES/EBU signals with sample frequencies from 32 to 96KHz. * Gain is not adjustable using the front panel.
LTC Distribution Mode	Inputs and distributes LTC signals. Inputs LTC signal as signal input. Gain is adjustable using the front panel. (Adjustable gain range: Approx. $\pm 3.0\text{dB}$)
Word Clock Distribution Mode	Inputs and distributes Word Clock signals. Gain is adjustable using the front panel. (Adjustable gain range: Approx. $\pm 3.0\text{dB}$)

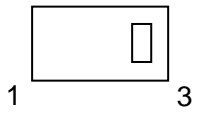
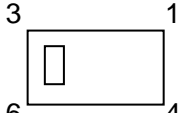
Sets distribution mode according to the signal input referring to illustrations in the table below. (Default: AES distribution mode)

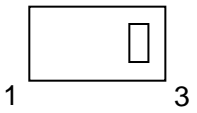
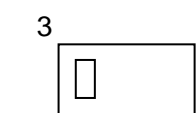
Sets distribution mode using DS1, DS2, S2, and S3 switches on the card. See Sec. 3 “Switch Settings” for switch locations.

After changing the Distribution Mode...

Outputs signal level changes according to the distribution mode. Before connecting a device, check that the distribution mode is set correctly and the output signal level meets the equivalent level of a connecting device to prevent damage to the device.

	AES Distribution Mode Setting
DS1 Switch 1	OFF
DS1 Switch 2	OFF
DS2 Switch 1	OFF
DS2 Switch 2	OFF
S2 Switch	<p>S2:MODE SET 1 \leftrightarrow 3 AES LTC/WC</p>  <p>Set the switch toward AES.</p>
S3 Switch	 <p>S3:TERM SET 3 \leftrightarrow 1 1KΩ 75Ω</p> <p>Set impedance to 75Ω (default).</p>

LTC Distribution Mode Setting	
DS1 Switch 1	ON
DS1 Switch 2	OFF
DS2 Switch 1	ON
DS2 Switch 2	OFF
S2 Switch	<p>S2:MODE SET 1 ⇔ 3 AES LTC/WC</p>  <p>Set the switch toward LTC/WC.</p>
S3 Switch	 <p>S3:TERM SET 3 ⇔ 1 1KΩ 75Ω</p> <p>Set impedance to 1kΩ.</p>

Word Clock Distribution Mode Setting	
DS1 Switch 1	OFF
DS1 Switch 2	ON
DS2 Switch 1	OFF
DS2 Switch 2	ON
S2 Switch	<p>S2:MODE SET 1 ⇔ 3 AES LTC/WC</p>  <p>Set the switch toward LTC/WC.</p>
S3 Switch	 <p>S3:TERM SET 3 ⇔ 1 1KΩ 75Ω</p> <p>Set impedance to 1kΩ.</p>

4-1. When Signal Mode Is Correctly Set

MODE LED on the front panel lights when power is turned on after installing a USF-105DADA into a USF frame. Confirm that the LED of your selected distribution mode is lit. When a USF-105DADA is installed in a USF-212S, **Board Settings** in Web GUI are indicated as **Correct**.

4-2. When Signal Mode Is NOT Set correctly

MODE LED on the front panel flashes or turned off when power is turned on after installing a USF-105DADA into a USF frame.

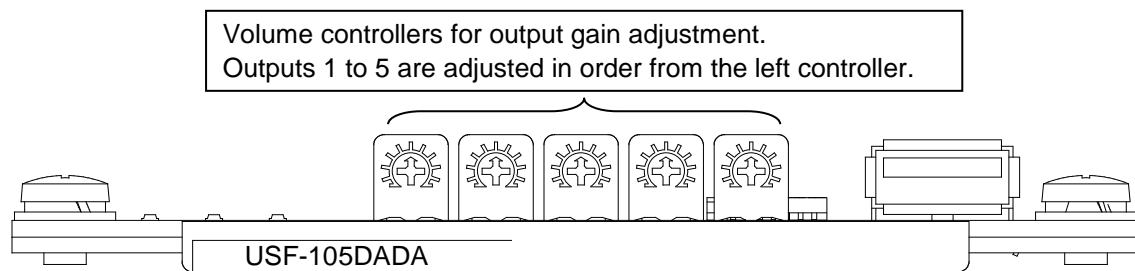
When a USF-105DADA is installed in a USF-212S, **Board Settings** in Web GUI are indicated as **Incorrect** (Check FRONT CARD. S2, S3, DS1 and DS2 settings.). See Sec. 7 “Web GUI” for details.

The output port is fixed to 0V. See Sec. 2-2 “Rear Panel” for details on output port details.

5. Output Gain Adjustment

When USF-105DADA distribution is in LTC or Word Clock mode, output gain can be adjusted using front panel volume controllers. Gain adjustment is available for output ports 1 to 5 respectively.

Adjustment ranges from -3dB to +3dB.



6. Input Signal Detection

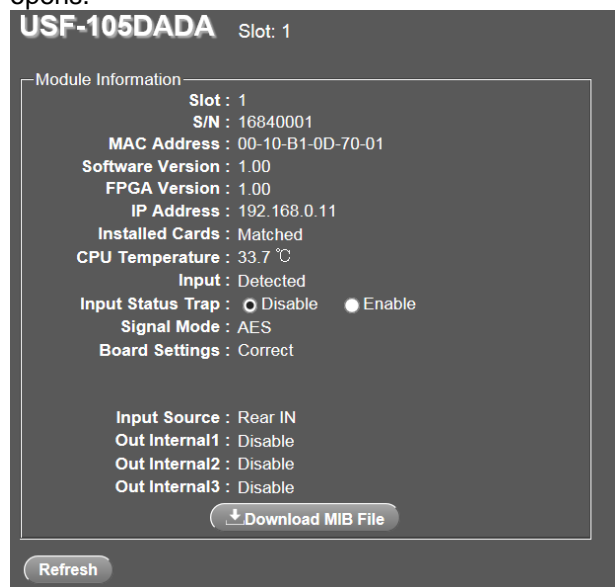
USF-105DADA signal detection differs with the distribution mode.

AES Distribution Mode	Digital audio input signal is detected when the sample frequency is from 32 to 96kHz. If a signal with a sample frequency different from 32 to 96kHz is input, 0V is output from the DIGITAL AUDIO OUT port.
LTC Distribution Mode	For an LTC input signal, if a signal with a frequency different from about 950Hz to 13kHz is input, 0V is output from the DIGITAL AUDIO OUT port.
Word Clock Distribution Mode	For a Word Clock input signal, if a signal with a frequency different from about 31kHz to 200 kHz is input, 0V is output from DIGITAL AUDIO OUT port.

7. Web GUI Setup

Web GUI can be displayed when a USF-105DADA is installed into a USF-212S frame, but is not displayed when it is installed into a USF-212 frame. See USF-212S operation manual for details on displaying a Web GUI.

Launch Web GUI and click USF-105DADA from slot no.1 to 12 of the USF-212S. The screen below opens.

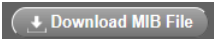


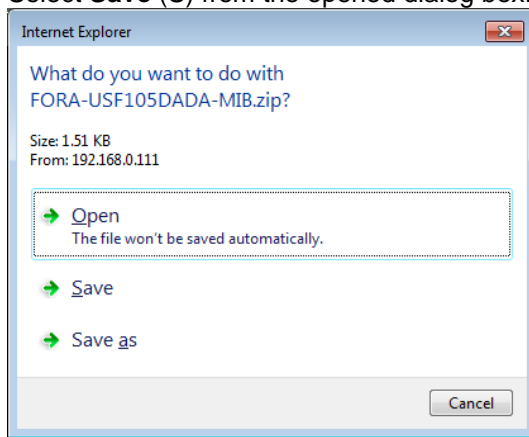
◆ Module Information

Item	Description
Slot	Installed slot number of USF-212S
S/N	USF-105DADA serial number
MAC Address	USF-105DADA MAC address
Software Version	USF-105DADA software version
FPGA Version	USF-105DADA FPGA version
IP Address	USF-105DADA IP address
Installed Cards	Installed cards matching Matched: Matched cards are installed. Mismatched: A mismatched rear card is installed. Install a correct rear card.
CPU Temperature	CPU temperature on the USF-105DADA
Input	Input signal condition Detected: Signal is correctly input. Not Detected: Input signal is not detected. See Sec.5 "Input Signal Detection" for details. * When an input signal is set to be input other than via a rear BNC connector, the input signal is not detected and "-----" is indicated.
Input Status Trap	When monitoring using SNMP Manager, Enable: Sends input status trap Disable: Not send input status trap * When an input signal is set to be input other than via a rear BNC connector, the input signal is not detected and a trap is not sent out. See Sec. 5 "Input Signal Detection" for trap sending conditions. See Sec. 8 "SNMP (Simple Network Message Protocol) Function" for trap details.
Signal Mode	USF-105DADA signal mode See Sec. 4 "Signal Mode Setting" for details.

Item	Description
Board Settings	Correct: Signal mode is correctly set. Incorrect (Check FRONT CARD. S2, S3, DS1 and DS2 settings.): Signal mode is incorrectly set. See Sec.4 "Signal Mode Setting" and set the mode correctly. When signal mode is incorrectly set, signal is not output.
Input Source	Input Signal that gets distributed. Rear IN: Input signal via rear panel BNC "DIGITAL AUDIO IN" Slot1 - 12: Input signal via internal USF frame bus.
Out Internal1 to 3	Signal output status to USF frame Internal Bus. Disable: Internal bus is not used. Slot 1 - 12: Signal is output via frame Internal Bus to the indicated slot number module. See Sec.9 "Extended Distribution Using Multiple USF-105DADA" for details on output extension using internal buses.

Downloading MIB Files

- (1) Click  to download the MIB (Management Information Base) for your SNMP manager.
- (2) Select **Save (S)** from the opened dialog box.



h b

- (3) FORA-USF105DADA-MIB.zip File is downloaded.
- (4) Unzip the file and load it into your SNMP manager.

8. SNMP (Simple Network Message Protocol) Function

The USF-105DADA can be remotely monitored using the SNMP (Simple Network Message Protocol) v2C protocol. An MIB (Management Information Base) file required in monitoring can be downloaded from Web GUI. See "Downloading MIB File" on the previous page.

See the USF-212S Operation Manual for details on SNMP network settings.

◆ GET List

Category	Object name	Object name in MIB file	Value	OID	Type	Trap
OID : 1.3.6.1.4.1.20175.1.332.1.						
Unit information	Product Name	usf105DadaProductName	USF-105DADA	1	OCTET STRING	
	Product Code	usf105DadaProductCode	1023828	2	INTEGER	
	Serial Number	usf105DadaSerialNumber	1684****	3	INTEGER	
	Soft Version	usf105DadaVersion	** **	4	OCTET STRING	
	FPGA Version	usf105DadaFpgaVersion	** **	5	OCTET STRING	
	Slot Number	usf105DadaSlotNumber	1~12	6	INTEGER	
	CPU Temperature	usf105DadaCpuTemperature	** degree Celsius	7	INTEGER	
	Input Status	usf105DadaInputStatus	-1:cannotDetect 0:notDetected 1:detected	8	INTEGER	✓
	Signal Mode	usf105DadaModeStatus	0:aes 1:lrc 2:wordClock	9	INTEGER	
	Board Settings	usf105DadaBoardSettings	0:correct 1:incorrect	10	INTEGER	
	Input Source	usf105DadaInputSource	0:Rear, 1-12:Slot1-12	11	INTEGER	
	Out Internal1 Status	usf105DadaOutInternal1	0:Disable 1-12=Slot1-12	12	INTEGER	
	Out Internal2 Status	usf105DadaOutInternal2	0:Disable 1-12:Slot1-12	13	INTEGER	
	Out Internal3 Status	usf105DadaOutInternal3	0:Disable 1-12:Slot1-12	14	INTEGER	

* No item can be set from SNMP.

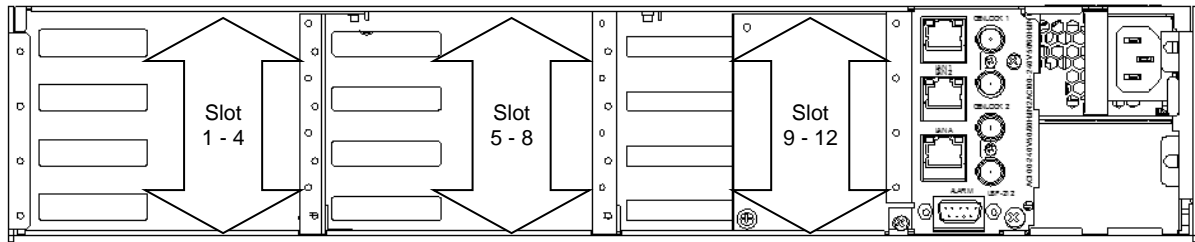
◆ TRAP List

Object Group	Item Name	Object name in MIB file	OID	Reference Object	Type
OID : 1.3.6.1.4.1.20175.1.332.0.					
TRAP	Input Signal	usf105DadaInputStatusChanged	1	usf105DadaSlotNumber	INTEGER
				usf105DadaInputStatus	INTEGER

* Input Signal Trap is not sent when input signal is distributed from USF-212S internal bus.

9. Extended Distribution Using Multiple USF-105DADAs

◆ Internal Bus Configuration



Applying multiple USF-105DADAs enable you to increase the distribution number via a USF frame internal bus.

Up to 4 USF-105DADAs can be applied and 20 distributed, from 1 input. Install USF-105DADAs in the internal bus slot that is the same as for the input signal. (Slot 1 to 4, Slot 5 to 8, or Slot 9 to 12)

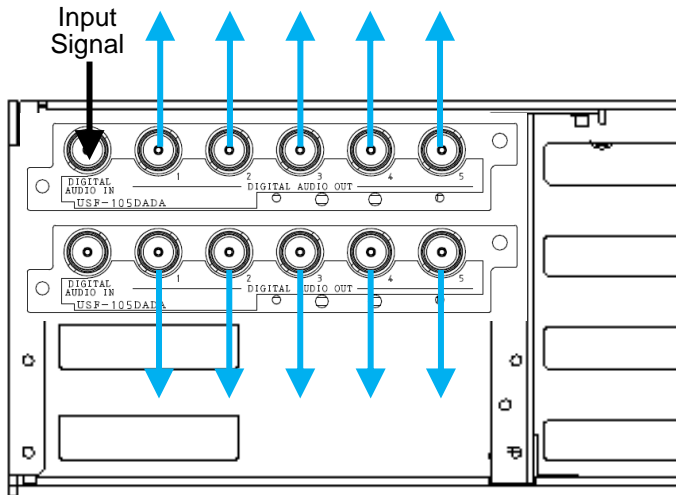
Set DS2, and Switch 3 to 7 to increase distribution number via an internal bus. See Sec. 3-4 “DS2 Switches 3 and 4: Input Signal Switches Settings” and Sec. 3-5 “DS2 Switch 5, 6, and 7: Internal Bus Switch Output Settings” for details on switch settings.

IMPORTANT

When using USF-105DADA units in a USF frame internal bus, apply multiple USF-105DADAs to extend distributions. Other USF modules cannot be combined with USF-105DADA for this purpose. When using an internal bus, ensure that the settings do not affect other modules.

9-1. Settings to Distribute 10 Output Signals from 1 Input

When USF-105DADAs are installed into Slots 1 and 2 as shown below, settings to distribute 10 outputs from the Slot 1 input signal are explained in this section.



- (1) Set the signal mode of USF-105DADA in Slots 1 and 2 to the same mode. (Default: AES distribution mode) See Sec. 4 “Signal Mode Settings” for details.
- (2) Set DS2 of USF-105DADAs as shown in the table below.

Slot 1 USF-105DADA - DS2 settings

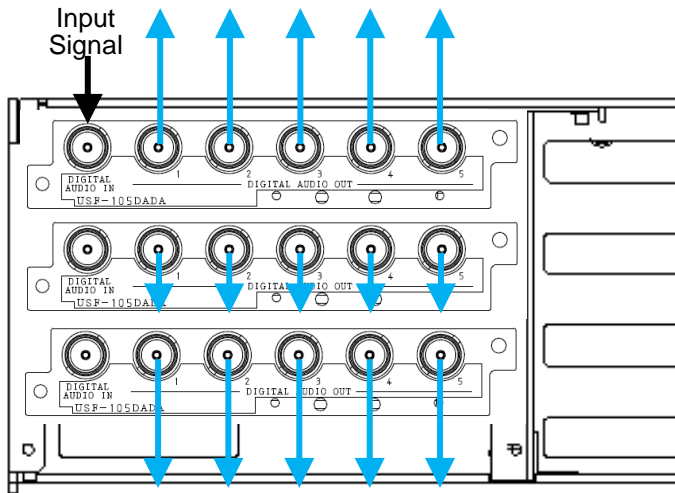
Switch	Setting	Description
Switch 3	OFF	Uses input via rear panel BNC. (Default)
Switch 4	OFF	
Switch 5	ON	Outputs to Slot 2 through Internal Bus1.
Switch 6	OFF	(Default)
Switch 7	OFF	(Default)

Slot 2 USF-105DADA - DS2 settings

Switch	Setting	Description
Switch 3	ON	Uses input via Internal Bus 1 and distributes from Slot1 out.
Switch 4	OFF	
Switch 5-7	OFF	(Default)

9-2. Settings to Distribute 15 Output Signals from 1 Input

When USF-105DADAs are installed in Slots 1, 2 and 3 as shown below, settings to distribute 15 outputs from the Slot 1 input signal are explained in this section.



- (1) Set signal mode of USF-105DADA in Slot1 - 3 as the same mode. (Default: AES distribution mode) See Sec. 4 “Signal Mode Setting” for details.
- (2) Set DS2 of USF-105DADAs as shown in the table below.

Slot 1 USF-105DADA - DS2 settings

Switch	Setting	Description
Switch 3	OFF	Uses input via rear panel BNC. (Default)
Switch 4	OFF	
Switch 5	ON	Outputs to Slot2 through Internal Bus1.
Switch 6	ON	Outputs to Slot3 through Internal Bus2.
Switch 7	OFF	(Default)

Slot 2 USF-105DADA - DS2 settings

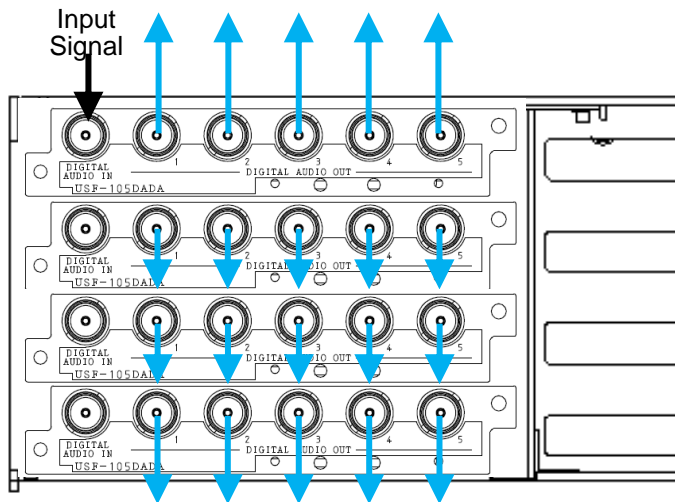
Switch	Setting	Description
Switch 3	ON	Uses input via Internal Bus 1 and distributes output via Slot 1.
Switch 4	OFF	
Switch 5-7	OFF	(Default)

Slot 3 USF-105DADA - DS2 settings

Switch	Setting	Description
Switch 3	ON	Uses input via Internal Bus 3 and distributes output via Slot. 1.
Switch 4	ON	
Switch 5-7	OFF	(Default)

9-3. Settings to Distribute 20 Output Signals from 1 Input

When USF-105DADAs are installed into Slot 1 to 4 as shown below, settings to distribute 20 outputs from the Slot 1 input signal are explained in this section.



- (1) Set signal mode of USF-105DADA in Slots 1 to 4 to the same mode. (Default: AES distribution mode) See Sec. 4 “Signal Mode Settings” for details.
- (2) Set DS2 of USF-105DADAs as shown in the table below.

Slot 1 USF-105DADA - DS2 settings

Switch	Setting	Description
Switch 3	OFF	Uses input via rear panel BNC. (Default)
Switch 4	OFF	
Switch 5	ON	Outputs to Slot2 through Internal Bus1.
Switch 6	ON	Outputs to Slot3 through Internal Bus2.
Switch 7	ON	Outputs to Slot4 through Internal Bus3.

Slot 2 USF-105DADA - DS2 settings

Switch	Setting	Description
Switch 3	ON	Uses input via Internal Bus 1 and distributes from Slot1 out.
Switch 4	OFF	
Switch 5-7	OFF	(Default)

Slot 3 USF-105DADA - DS2 settings

Switch	Setting	Description
Switch 3	ON	Uses input via Internal Bus 3 and distributes from Slot1 out.
Switch 4	ON	
Switch 5-7	OFF	(Default)

Slot 4 USF-105DADA - DS2 settings

Switch	Setting	Description
Switch 3	ON	Uses input via Internal Bus 3 and distributes from Slot1 out.
Switch 4	ON	
Switch 5-7	OFF	(Default)

10. Specifications and Dimensions

10-1. Unit Specifications

Input Signal	AES Distribution Mode	AES/EBU 75Ω BNC x 1 1.0Vp-p
	LTC Distribution Mode	LTC 1kΩ BNC x 1 0.5 to 4.5Vp-p
	Word Clock Distribution Mode	Word Clock 1kΩ BNC x 1 2 to 5Vp-p
Output Signal	AES Distribution Mode	AES/EBU 75Ω BNC x 5 1.0V p-p within ±10%
	LTC Distribution Mode	LTC 75Ω BNC x 5 2.0V p-p within ±10% (Terminated at 75Ω)
	Word Clock Distribution Mode	Word Clock 75Ω BNC x 5 2.5Vp-p within ±10% (Terminated at 75Ω)
Output level is adjusted to DC 0V as midpoint of amplitude in all distribution modes. Apply minimum output load resistance 75Ω or over.		
Output Gain Adjusting Range	AES Distribution Mode	Not adjustable
	LTC Distribution Mode	Settings per output port are available.
	Word Clock Distribution Mode	Adjustable to about ±3dB on input signal.
SNMP	Via Web browser or SNMP (USF-212S frame required) SNMP applicable version v2C	
Temperature	0°C to 40°C	
Humidity	30% to 90% (no condensation)	
Power	Supplied from USF frame, +24 VDC	
Power Consumption	6.2VA (6.2W)	
Dimensions	106 (W) x 356 (D) mm (Front card)	
	114(W) x 20.2 (D) mm (Rear card)	
Weight	250 g	
Required Slot	1	

10-2. External Dimensions

(All dimensions in mm.)

