

Notes for DME64N/DME24N Version 1.2

Thank you for purchasing the DME64N/DME24N. The following notes supplement the information in the Owner's Manual about DME64N/DME24N.

Upgrading Cautions

- The following parameter will not be reflected in Version 1.2 when it is used to read data created in Version 1.0.0: SlotIn/SlotOut. Remake these settings in DME Designer Version 1.2.
- Data created using Version 1.2 will not open properly on Version 1.1.
- Version 1.2 will not work with previous version in the area. When using Version 1.2, all DME firmware (program and components), along with DME Designer, must be upgraded to Version 1.2 simultaneously. For instructions on performing the version upgrade, see "DME Firmware Update" in Chapter 3 "Main Panel Window" of the "DME Designer Version 1.2 Owner's Manual."
- To use the DME CONTROL function on the PM5D, the PM5D must be version 1.12 or later, and connected DME64N/24N units must be version 1.1 or later.
- For details about DME CONTROL function settings in the PM5D, see the "PM5D/PM5D-RH Owner's Manual."

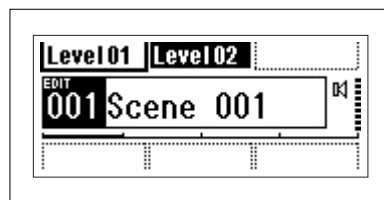
Changes in Version 1.2

■ An Edit Indicator has been added.

If a parameter is changed after recalling a scene, a dot will appear in the scene number indicator, and "EDIT" will appear in the display.



SCENE NUMBER

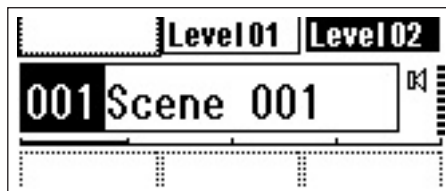


■ The User-defined parameters display is changed.

"No Assign" settings in DME Designer are displayed as dotted lines.

When [Parameter Value Edit] is selected the display will be a solid line.

When [Direct Parameter Value], [Scene Change], [GPI Out], or [Play Wav File] are selected, the display will be inverted.



■ The Remote parameter has been added to Utility display "Misc" page.

- The REMOTE connector can be used as a MIDI connector.
- A new communications protocol allows AMX, Crestron, and other external devices to control the DME.

For details about the communication protocol refer to the "DME-N Remote Control Protocol Specifications" document. The "DME-N Remote Control Protocol Specifications" document can be found at the Yamaha Pro Audio website:

<http://www.yamahaproaudio.com/>

HA Control (422)	External head amp control (RS-422 only)
COM (232C)	Control using the DME communication protocol via RS-232C/RS-422.
COM (422)	
MIDI (232C)	Control using MIDI commands via RS-232C/RS-422.
MIDI (422)	
Remote Ctrl (232C)	Remote controller via RS-232C/RS-422.
Remote Ctrl (422)	

Added parameters are shown in bold.

Changes in Version 1.1

For information on changes to DME Designer, see the “DME Designer Version 1.2 Owner’s Manual.”

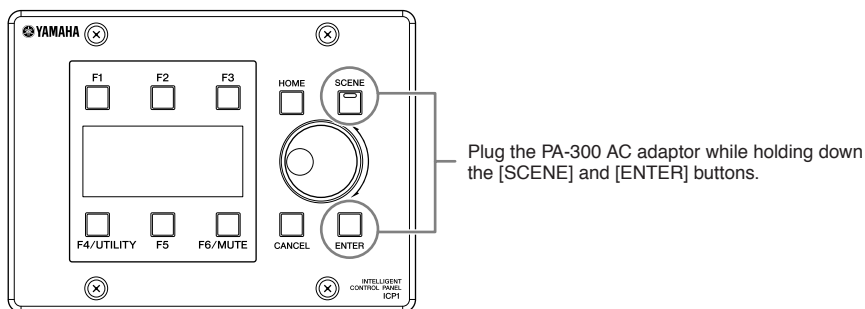
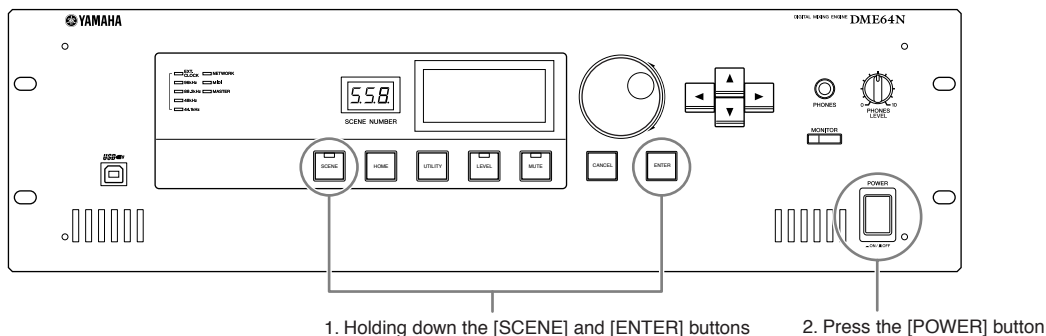
■ The default gateway IP address is changed.

In Version 1.0, the default IP gateway address was `***.***.***.1`, but in Version 1.1, the address is changed to `***.***.***.254`. Consequently, while the zone slave IP addresses in Version 1.0 were `***.***.***.3` through `***.***.***.254`, they have changed in Version 1.1 to `***.***.***.3` through `***.***.***.253`.

■ An initialization function has been added.

With this function you can initialize the DME64N/24N and the ICP1.

Turn the power OFF, then turn it back on again while holding down the [SCENE] and [ENTER] buttons.



01. Initialize DME: Returns to the factory setting. (Deletes all user settings except component data.)

02. Delete All Data: Deletes all data.

03. ==> Exit Diag Mode: Leaves this screen and restarts.

■ A THRU connection function has been added.

Even in an environment with no computer, you can check the connections without using DME Designer by directly connecting the DME64N/24N input/output.

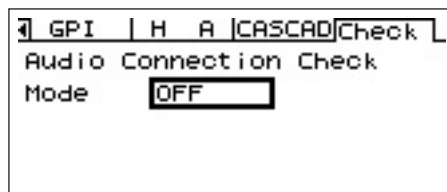
The meter does not operate during a connection check.

This is set on the CHECK page of the utility screen.

MODE: OFF

Makes connections in the configuration used in the current scene.

This is set to OFF when the unit is started.

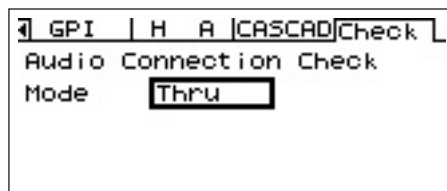


MODE: Thru

Directly connects the Input and Output of each slot one-to-one for each channel.

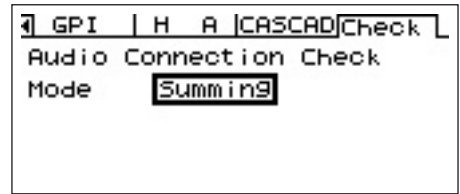
When input-only or output-only cards like AD or DA cards are inserted in the slots, you cannot perform checks in this mode.

In the DME24N, the internal AD and internal DA are directly connected on each channel.



MODE: Summing

Sums all input signals coming from Inputs (-12dB), without regard to device or card type, and outputs it through all Outputs.



■ The Event Scheduler function allows day/time settings for events

The settings are accessible via the Utility display “Misc” page. Refer to the “DME Designer Version 1.2 Owner’s Manual” for details.

Event Scheduler

Determines whether an event schedule setup in the DME Designer will be executed or not, and displays the current status.

ON: The event will be executed.

OFF: The event schedule will not be executed.



■ A DAW control function has been added.

With this function you can control the DME64N/24N from a DAW controller.

1. Parameter Control Function

Lets you control DME64N/24N parameters using a DAW Controller.

For example, if the PAN parameter is assigned to CH1 of the DAW controller, you can control the PAN parameter by operating a knob.

There are two modes in the parameter control function, as follows:

(1) General Parameter Operation Mode

[KNOB] and [CH FADER] controls are used to operate internal parameters assigning them in DME Designer. For detailed settings, see the “DME Designer Version 1.2 Owner’s Manual.”

(2) Final Output Stage Parameter Operation Mode

Final output stage parameters are operated using [MUTE] and [CH FADER] controls.

Unlike the General Parameter Control Mode, controls and the parameters that are compatible with them, are fixed in this mode.

[Method of Operation]

[▲]: Switches to General Internal Parameter Control Mode.

[▼]: Switches to Final Output Stage Parameter Control Mode.

[BANK <][BANK >]: The channels targeted for operation are shifted by the number of channels built into the DAW controller.

[CH <][CH >]: The channels targeted for operation are shifted one channel at a time.

[SELECT]: Switches the display method on the DAW controller.

When turned OFF, an overall display appears. When a channel is turned ON, the detail display appears for that channel. For information about the overall and detail displays, see the next item, “Setting and Parameter Name Display Function.”

[KNOB]: Changes assigned parameters in the General Internal Parameter Operation Mode.

This is not used in the Final Output Stage Parameter Operation Mode.

[MUTE]: This is not used in the General Internal Parameter Operation Mode.

This turns muting ON or OFF for the corresponding channel in the Final Output Stage Parameter Operation Mode.

[CH FADER]: Changes assigned parameters in the General Internal Parameter Operation Mode.

This adjusts volume for the corresponding channel in the Final Output Stage Parameter Operation Mode.

NOTE

Only one parameter can be assigned to the same channel.

2. Setting and parameter name display function

Displays the settings and parameter names on the DAW controller’s LCD screen.

There are two display methods: over-all display and detail display.

Overall Display: The overall display shows the assigned parameter names and settings, organized by DAW channels.

Detail Display: In the detail display, you select the parameter you want to display. Only information for that parameter appears on the DAW controller’s LCD screen.

NOTE

The number of characters that can be displayed is limited by the size of the DRAW’s LCD screen.

3. User Label Function

Lets you attach names to assigned parameters.

For details about settings, see the “DME Designer Version 1.2 Owner’s Manual.”

■ A GPI LOCK function has been added.

This functions allows you to disable input from a GPI device.

For details about settings, see the “DME Designer Version 1.2 Owner’s Manual.”

■ The number of MY16-C cards that can be used simultaneously in the DME64N is now four.

In Version 1.0, only two MY16-C cards could be used simultaneously in the DME64N (page 20 in the DME64N/24N Owners Manual). In Version 1.1, up to four cards can be used simultaneously.

However, if the serial number written on the upper surface of your DME64N is shown below, a hardware upgrade is needed. KK, KL, KM, KN, KO, KP, KX, KY are the third and fourth digits of the serial number.

A fee is charged for the hardware upgrade.

For details, contact Yamaha customer support using the contact information located at the end of the “DME64N/24N Owner’s Manual.”

■ The [PHONES] terminal can now be muted.

The [PHONES] terminal in Version 1.0 was not muted when the unit as a whole was muted by pressing the [MUTE] button (page 40 in the DME64N/24N Owner’s Manual, “Mute Switching.” In Version 1.1, all outputs are muted including [PHONES].

■ The CASCADE setting (page 53 in the DME64N/24N Owner’s Manual) is now available from DME Designer only.

In Version 1.0, CASCADE could be set in the DME64N, but in Version 2.0, this is a screen display function only.

Set CASCADE from DME Designer.

For details about settings, see the “DME Designer Version 1.2 Owner’s Manual.”

■ The monitoring function (page 42 in the DME64N/24N Owner’s Manual) has been changed.

- By editing the Monitoring Point List in DME Designer, you can select user-defined monitoring points in the DME64N/24N. Using this function, component input/output points can be selected for monitoring points in the DME64N/24N.
- The [MONITOR] indicator blinks when you are using the probe monitor function to select monitoring points from DME Designer.
- You can turn the monitoring function OFF.
- Lighting of the indicator lamp is linked to ON/OFF for the monitoring function and probe monitoring function.

The monitoring function is for monitoring the sound at a specific point within the DME.

The monitored sound is output from the [PHONES] terminal and from the Monitor OUT that is set in DME Designer.

1. Setting a monitoring point from the DME64N/24N

You can select a monitoring point in the DME64N/24N and check the sound.

(1) Slot or user defined selection

Select the slot or User Defined in the monitoring slot dialog.

The following five position types can be selected:

- ① Slot input/output terminal
- ② CASCADE input/output terminal (DME64N only)
- ③ IN terminal (DME24N only)
- ④ OUT terminal (DME24N only)
- ⑤ User Defined

By connecting ① through ④ in DME Designer, you will be able to select the input/output terminal.

You will be able to select ⑤ by editing the Monitoring Point List in DME Designer.

(2) Selecting a Monitoring Point

Monitoring points can be selected using the “Monitoring Point” dialog box.

The monitoring point will switch and the [MONITOR] indicator lights up.

Method of Operation

With the monitoring function set to OFF ([MONITOR] indicator not lit) press the [MONITOR] button to display the Monitoring Slot Dialog.

In the dialog, select the Monitoring Slot and Monitoring Point and use the [ENTER] button to confirm.

Pressing the [CANCEL] button returns to the previous dialog.

2. Setting the Monitoring Point from DME Designer (Probe Monitor Function)

For details, see the “DME Designer Version 1.2 Owner’s Manual.”

When you use the probe monitor function, the monitoring point switches and the [MONITOR] indicator lights up.

At the same time, the “Probe” mark appears on the DME64N/24N display, and the monitoring point selected in the DME64N/24N is disabled.

3. Monitoring OFF

You can turn OFF the monitoring function at the DME unit.

This turns OFF output of sound from the [PHONES] terminal and the Monitor OUT set in DME Designer.

Method of Operation

When the monitoring function is set to ON ([MONITOR] indicator lit steadily or blinking), you can turn it OFF by pressing the [MONITOR] button.

The [MONITOR] indicator light turns OFF.

When you want to turn ON the monitoring function, select a monitoring point.

The following notes supplement the information in the DME64N/DME24N Owner’s Manual:

■ Only a limited number of some components can be arranged in a configuration.

Component		Maximum number of components that can be arranged (for each DME unit)	
		DME64N	DME24N
Matrix Mixer	64 Input 32 Output 64 Input 64 Output	1 (*1)	0 (Cannot be arranged)

(*1)

- Input components (Slot In, Cascade In) and output components (Slot Out, Cascade Out) cannot be directly connected.
- Components other than input/output components cannot be arranged.

■ The following notes apply when “Preparation” on page 19 of the DME64N/24N Owner’s Manual is started up for the first time.

The meter does not operate during the first startup. The [SIGNAL][PEAK] indicators also do not work in the DME24N.

■ There is an error on page 29 of the DME64N/24N Owner’s Manual, where it states that there is current between the OUT and GND [GPI] terminals.

	Incorrect	Correct
Illustration note	Max. <u>6mA</u>	Max. <u>16mA</u>
Caution sentence	Make sure that the current between the OUT and GND [GPI] connectors is less than <u>6mA</u> .	Make sure that the current between the OUT and GND [GPI] connectors is less than <u>16mA</u> .

■ The following notes apply to “Net Page (Network Settings Page)” on page 47 of the DME64N/24N Owner’s Manual:

③ Link Mode

Error: The 100Base-Tx: [NETWORK] terminal operates as 100Base-TX.

Correct: The 100Base-Tx: [NETWORK] terminal operates as 100Base-TX if possible. If the network environment does not support 100Base-TX, it operates as 10Base-T.

■ The following notes apply to the RS-232C terminal in “Control I/O” on page 63 of the DME64N/24N Owner’s Manual:

Baud Rate = 38,400 bps

Data = 8bit

Stop bit = 1bit

Message List

Message	Content	Corrective Action
Cannot Select	There is no selectable item in the scene or monitoring point list.	Data is not registered. Register the data to be used in DME Designer.
CAS. In Sync Err	The word clock input from the [CASCADE IN] terminal is not synchronized with the DME64N word clock.	Recheck the settings for using the word clock that synchronizes the DME64N and external devices.
CAS. Out Sync Err	The word clock input from the [CASCADE OUT] terminal is not synchronized with the DME64N word clock.	Recheck the settings for using the word clock that synchronizes the DME64N and external devices.
Connecting	Searching for DMEs in the network and connecting them.	—
Download Success	The DME64N/24N program update or restoration was successful.	—
Downloading	Updating the DME64N/24N program. Do NOT turn off the power while this display is on the screen.	—
DSP Power Shortage	The audio signal is muted without being input or output, because the DSP resources are insufficient. This message may be displayed when a configuration created at 44.1 or 48 kHz is operated at 88.2 or 96 kHz.	To operate with all word clocks, set the word clock in DME Designer to 96 kHz when creating a configuration.
Duplicate IP Adr.	An IP address is duplicated.	Change the settings so that there are no duplicate IP address.
File Operating	Scene-related data (configuration, component, etc.) from the computer is in operation. Do NOT turn off the power while this display is on the screen.	—
Flash Rom Full	The flash memory used for saving data has become full.	Erase unused data such as configurations, presets, and audio data.
Illegal MAC Adr.	This is an invalid MAC address.	Since this is likely to be a device failure, contact a Yamaha electric sound service outlet listed at the end of this manual (page 79).
Invalid IP Adr.	An IP address is invalid.	Set a valid IP address.
Invalid Password	The password is incorrect.	Enter the correct password. If you have forgotten the password, contact a Yamaha electric sound service outlet listed at the end of this manual (page 79).
Low Battery	Battery capacity is running low.	Stop using the unit immediately and contact a Yamaha electric sound service outlet listed at the end of this manual (page 79).
MIDI Port In Use	The USB port being used for communication with DME Designer has been selected as a host.	Set Host on the utility screen's MIDI page to another port.
Network Busy	Traffic in the network is congested. Communication will take time.	Check the devices connected to the network. If there are a large number of connected devices, reduce their number. If LinkMode is set to 10BASE-T, traffic speed may improve if the setting is changed to 100BASE-TX.
Network Error	An error like the following has occurred on the network: <ul style="list-style-type: none"> • A cable has become disconnected. • The power to a connected hub or router is cut off. • A cable is in an unsuitable condition (such as something heavy resting on the cable). (Static electricity may be having an effect.)	Investigate the cause of the error and eliminate it.
Network Setup	Various settings for connecting to the network are being made.	—
No Battery	The battery is exhausted.	When the power is turned OFF, the current settings will be lost and the unit will return to its initial settings. Stop using the unit immediately and contact a Yamaha electric sound service outlet listed at the end of this manual (page 79).
No Current Scene	There is no current scene.	This is displayed when scene data has not been sent even once. Create data using DME Designer, and synchronize DME Designer and the DME64N/24N unit.
No MAC Adr.	No MAC address is set.	Since this is likely to be a device failure, contact a Yamaha electric sound service outlet listed at the end of this manual (page 79).
Panel Locked	Panel lock is set, and the panel cannot be operated.	Panel lock may have been set by the administrator to prevent unexpected data changes caused by erroneous user operations. To use the panel, hold the [CANCEL] button down for at least two seconds. This clears the panel lock.
Panel Unlocked	Panel lock has been cleared. Panel operations are possible.	—
Param Access Err	Cannot display current settings.	The component version may be old. Update to the latest component.
Param Set Err	Cannot change current settings.	The component version may be old. Update to the latest component.

Message	Content	Corrective Action
Recovering	The DME64N/24N program update has failed. Restoring the previous program. Do NOT turn off the power while this display is on the screen.	Retry the program update. If the update is still unsuccessful after several retries, a malfunction is likely. Contact a Yamaha electric sound service outlet listed at the end of this manual (page 79).
Saving Failed	Cannot save settings.	Since this is likely to be a device failure, contact a Yamaha electric sound service outlet listed at the end of this manual (page 79).
Saving HA Info	Saving head amp information. Do NOT turn off the power while this display is on the screen.	—
Saving Setup Info	Saving information (except head amp information) that is set in the utility screen. Do NOT turn off the power while this display is on the screen.	—
Scene Recalling	Recalling a scene.	—
Scene Storing	Storing a scene. Do NOT turn off the power while this display is on the screen.	—
SLOT1 Sync Err	The word clock input from Slot1 is not synchronized with the DME64N/24N word clock.	Recheck the settings for using the word clock that synchronizes the DME64N/24N and external devices.
SLOT2 Sync Err	The word clock input from Slot2 is not synchronized with the DME64N word clock.	Recheck the settings for using the word clock that synchronizes the DME64N and external devices.
SLOT3 Sync Err	The word clock input from Slot3 is not synchronized with the DME64N word clock.	
SLOT4 Sync Err	The word clock input from Slot4 is not synchronized with the DME64N word clock.	
Slots Overloaded	The electric current being consumed by cards currently installed in the slots exceeds the specified value.	This combination cannot be used. Check the combination of cards that are currently installed.
Store Disable	Scene storing is currently prohibited in the settings.	This prohibition may have been set by the administrator to prevent unexpected data changes caused by erroneous user operations. Change the setting by going to the Misc page of the utility screen and changing the setting for Scene Store to "Enable."
WCLK Unlocked	A valid word clock is not being input or cannot be detected.	Recheck connections and internal settings related to the word clock.
Zone Sync Err	Data from the wrong zone has been input or data has not been input.	Use DME Designer to resend the data.

NOTE

For information about updated CD-ROM versions to be released in the future, contact the store where you purchased the device, or contact Yamaha customer service using the contact information at the end of your "DME64N/24N Owner's Manual."

The following notes supplement the information in the DME64N/DME24N Owner's Manual

DME24N ANALOG INPUT CHARACTERISTICS

Terminals	Gain	Actual Load Impedance	For Use With Nominal	Input Level		Connector
				Nominal	Max. before clip	
CH INPUT 1-8	-60dB	3kΩ	50 – 600Ω Mics & 600Ω Lines	-60dBu (0.775mV)	-40dBu (7.75mV)	Euroblock
	10dB			10dBu (2.451V)	30dBu (24.511V)	

- 0dBu = 0.775 Vrms
- All AD converters (CH1-8) are 24-bit linear, 128 times oversampling.
- +48V DC (phantom power) is supplied to CH INPUT (1-8) connectors via each individual controlled switch.

DME64N ANALOG OUTPUT CHARACTERISTICS

Output Terminals	Actual Source Impedance	For Use With Nominal	Output Level		Connector
			Nominal	Max. before clip	
PHONES	15Ω	8Ω	75mW	150mW	Stereo Phone Jack
		40Ω	65mW	150mW	

- 0dBu = 0.775 Vrms
- Stereo Phone Jack = unbalanced (Tip = LEFT, Ring = RIGHT, Sleeve = GND)

DME24N ANALOG OUTPUT CHARACTERISTICS

Output Terminals	Actual Source Impedance	For Use With Nominal	Output Level		Connector
			Nominal	Max. before clip	
OUTPUT 1-8	150Ω	600Ω Lines	+4dBu (1.23V)	+24dBu (12.28)	Euroblock
PHONES	15Ω	8Ω	75mW	150mW	Stereo Phone Jack
		40Ω	65mW	150mW	

- 0dBu = 0.775 Vrms
- All AD converters (CH1-8) are 24-bit linear, 128 times oversampling.
- Stereo Phone Jack = unbalanced (Tip = LEFT, Ring = RIGHT, Sleeve = GND)

DME24N ANALOG CHARACTERISTICS (Output impedance of signal generator: 150Ω)

Frequency Response 20Hz – 20kHz, reference to the nominal output level @1kHz

Input	Output	RL	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	600Ω	GAIN = -60dB	-1.5	0.0	0.5	dB
Internal OSC	PHONES	8Ω		-3.0	0.0	0.5	dB

Frequency Response fs = 96kHz@20Hz – 40kHz, reference to the nominal output level @1kHz

Input	Output	RL	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	600Ω	GAIN = -60dB	-1.5	0.0	0.5	dB
Internal OSC	PHONES	8Ω		-3.0	0.0	0.5	dB

Gain Error @1kHz

Input	Output	RL	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	600Ω	GAIN = -60dB	2.0	4.0	6.0	dBu
			GAIN = +10dB	2.0	4.0	6.0	dBu
Internal OSC	PHONES	8Ω	-30dBFS @1kHz, phones level control: max.	-2.0	0.0	2.0	dBu

Total Harmonic Distortion fs = 48kHz

Input	Output	RL	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	600Ω	GAIN = -60dB @20Hz – 20kHz @+14dBu			0.1	%
			GAIN = +10dB @20Hz – 20kHz @+14dBu			0.05	%
Internal OSC	PHONES	8Ω	-30dBFS @1kHz, phones level control: max.			0.1	%

Total Harmonic Distortion fs=96kHz

Input	Output	RL	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	600Ω	GAIN = -60dB @20Hz – 20kHz @+14dBu			0.1	%
			GAIN = +10dB @20Hz – 20kHz @+14dBu			0.05	%
Internal OSC	PHONES	8Ω	-30dBFS @1kHz, phones level control: max.			0.1	%

Hum & Noise EIN = Equivalent Input Noise

Input	Output	RL	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	600Ω	GAIN = -60dB Master fader at nominal level and one Ch fader at nominal level. (Mixer mode)		-128		dBu
					-64		dBu
Internal OSC	PHONES	8Ω	GAIN = +10dB Master fader at nominal level and one Ch fader at nominal level. (Mixer mode)		-82		dBu
				Residual output noise, phones level control: min.			-86

- Hum & Noise are measured with a 6dB/octave filter @12.7kHz; equivalent to a 20kHz filter with infinite dB/octave attenuation.

Dynamic Range

Input	Output	RL	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	600Ω	GAIN = +10dB		106		dB

- Dynamic range are measured with a 6dB/octave filter @12.7kHz; equivalent to a 20kHz filter with infinite dB/octave attenuation.

Crosstalk @1kHz

From/To	To/From	Conditions	Min.	Typ.	Max.	Units
CH N	CH (N-1) or (N+1)	CH1 – 8, adjacent inputs			-80	dB

Maximum Voltage Gain @1kHz

Input	Output	RL	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	600Ω	GAIN = -60dB		64		dB

Phantom Voltage

Output	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	hot, cold: No load	46	48	50	V

PEAK/SIGNAL Indicator Level

Input	Output	Conditions	Min.	Typ.	Max.	Units
CH INPUT 1-8	CH OUTPUT 1-8	GAIN = +10dB PEAK red LED: ON	19	21	23	dBu
		GAIN = +10dB SIGNAL green LED: ON	-18	-16	-14	dBu