



AUDIO INTERFACE CARD / CARTE INTERFACE AUDIO
TARJETA INTERFAZ DE AUDIO / CARTÃO DE INTERFACE DE ÁUDIO
КАРТА АУДИОИНТЕРФЕЙСА / 音频界面卡 / 音訊介面卡
오디오 인터페이스 카드 / オーディオインターフェースカード

PY64-D

- EN** Owner's Manual
- DE** Benutzerhandbuch
- FR** Mode d'emploi
- ES** Manual de instrucciones
- PT** Manual do Proprietário
- IT** Manuale di istruzioni
- RU** Руководство пользователя
- ZH-CN** 使用说明书
- ZH-TW** 使用說明書
- KO** 사용설명서
- JA** 取扱説明書

English

Deutsch

Français

Español

Português

Italiano

Русский

简体中文

繁體中文

한국어

日本語

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- 插入或卸除此介面卡時，請參閱主機隨附使用說明書當中的操作說明和安全資訊。
- 如要確認主機是否支援此介面卡，請參閱主機的使用說明書或造訪 Yamaha Pro Audio 網站，網址如下。
<https://www.yamahaproaudio.com/>



Yamaha 環保標章

Yamaha 環保標章旨在證明產品具備優異的環保特性。相較於舊型的 Mini-YGDAI 介面卡，本產品的尺寸縮小了 36%。

注意事項

在繼續操作之前，請詳閱以下內容

請妥善保管本說明書，以備日後參考。



請始終遵守下列基本注意事項，以免可能因觸電、短路、損壞、火災或其他危險，而造成嚴重傷害甚至死亡。相關注意事項包括但不限於：

- 將介面卡裝入任何裝置前，請務必確認兩者是否相容。此外，請勿將本介面卡安裝於任何未經 Yamaha 指定得與本卡搭配使用的產品內部，否則可能會導致觸電、火災或產品損壞。
- 請勿嘗試自行拆解或改裝介面卡。請勿對介面卡上的接口或其他零部件過度施力，否則可能會造成觸電或產品損壞，甚或引發火災。
- 每次安裝介面卡以及連接 / 斷開纜線之前，請務必先關閉主機，並斷開主機的電源線，否則可能會產生非預期的噪音、導致觸電或造成產品損壞。
- 安裝介面卡之前，請務必先關閉主機以及所有與主機相連的週邊裝置，並斷開所有相關纜線，否則可能會產生非預期的噪音、導致觸電或造成產品損壞。
- 請勿將本產品置於任何燃燒中的物體附近，或在本產品附近引燃明火或施放煙火，以免引起火災。



請務必始終遵循下列基本注意事項，以免造成自己或他人受傷，或造成本裝置或其他財物損壞。相關注意事項包括但不限於：

- 請務必將主機正確接地，否則可能會導致觸電、火災或產品損壞。
- 操作介面卡時，請勿觸摸電路板上的金屬引線（針腳），以免割傷手部。
- 請務必在安裝期間戴上厚手套，以免手部遭到銳利的邊緣刮傷或割傷。
- 請勿將本產品裝設於可能接觸到腐蝕性氣體或空氣中含有鹽分之處，否則可能會造成產品損壞。

對於因不當使用或私自修改本產品而造成的損壞，以及因資料遺失或毀損而造成的損失，Yamaha 將不承擔任何責任。

須知

請遵守以下注意事項，以免造成產品故障 / 損壞、資料毀損或其他財物損失。

使用及維護

- 請勿將本產品直接連線至公共 Wi-Fi 及 / 或網際網路。只有使用具有強大密碼保護的路由器時，才能將本產品連線至網際網路。如需安全性最佳實務的相關資訊，請洽詢路由器製造商。
- 請勿在電視、收音機或其他電氣產品附近使用本產品。否則，產品、電視或收音機可能會產生雜訊。
- 請勿讓本產品接觸到過多灰塵、震動或極低 / 極高的溫度，否則可能導致面板變形、運作不穩或內部零部件損壞。
- 請勿將本產品安裝在溫度變化劇烈的地點，以免產品內部或表面產生水分凝結，進而導致產品破裂。
- 如有充分理由相信產品內部可能已產生凝結，請靜置數小時且不要開啟電源，直到水分完全乾燥為止，以免產品受損。
- 請勿在本產品上方放置乙烯基、塑膠或橡膠物品，否則可能導致面板變形或褪色。
- 請使用乾燥的軟布清潔本產品。請勿使用浸有次氯酸鈉、酒精、苯、油漆稀釋劑、清潔液或化學品的抹布擦拭產品表面，否則可能會導致褪色或產品表面特性改變。
- 操作本產品前，請先排除身體和衣物上的所有靜電，以免損壞本產品。只要預先觸摸主機上的金屬外露部分或其他接地物品，即可去除靜電。
- 請勿觸摸外露的接頭和金屬零件，以免造成接觸不良。
- 請勿讓本產品掉落或承受撞擊，否則可能會導致產品斷裂和 / 或故障。
- 請勿讓螺絲或其他小零件掉入介面卡內部。如在產品內部嵌有鬆脫螺絲或類似金屬物體的情況下通電，可能會導致介面卡故障或損壞。如果您無法自行取出掉入產品內部的物體，請向合格的 Yamaha 服務人員尋求協助。
- 請勿卸除安裝於本產品上的螺絲，否則可能會導致產品損壞或零部件故障。

資訊

著作權保護

- 請勿將本產品用於任何可能侵犯任何第三方權利 (包括著作權) 之用途，具體範圍視各個國家 / 地區的法規而定。
- 對於因使用本產品而可能侵犯第三方權利的任何行為，Yamaha 概不負責。

關於本產品隨附的功能 / 資料

- 本產品採用 Dante IP Core。
如需該特定軟體的開放原始碼授權詳細資訊，請參閱 Audinate 網站。
<https://www.audinate.com/software-licensing>

關於本說明書

- 本說明書中的插圖僅供參考。
- 本說明書中的公司名稱及產品名稱是其各自公司的商標或註冊商標。
- 軟體可能會不時修改及更新，恕不另行通知。

關於棄置

- 本產品內含可回收的零部件。
如需棄置此產品，請聯絡當地相關機構。

前言

感謝您選購 Yamaha PY64-D !

為發揮本產品的最佳效能，請在開始使用前先閱讀本說明書。閱讀完畢後，請妥善保存本說明書。

適用對象

使用者需具備必要之技能，能夠操作即將裝入本產品之主機，方可使用本產品。

預定用途

您可以將此產品安裝於主機內部，以擴充其 I/O (輸入 / 輸出) 連接埠。

配件

使用說明書 (本手冊)

適用文件

- 使用說明書 (本手冊)

本手冊主要說明本產品的組件名稱及功能。

- 狀態 / 訊息清單

本清單說明 [SYSTEM] 及 [SYNC] 指示燈的含意，以及需採取的適當對應措施。

<https://manual.yamaha.com/pa/dante/status/>



韌體升級

建議您更新本產品的韌體，以改善本產品的操作性能、新增功能，並修正可能的故障情況。

您可以前往下方網站，查閱有關韌體更新的資訊。

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

有關韌體更新及主機設定的資訊，請參閱網站上的韌體更新指南。

關於 Dante

本產品採用 Dante 作為傳輸音訊訊號的通訊協定，Dante 是一種由 Audinate 開發的網路通訊協定。設計旨在以不同的取樣率及位元速率傳遞多聲道音訊訊號，以及透過 Gigabit 乙太網路 (GbE) 的網路傳送控制訊號。

如需 Dante 的詳細資訊，請參閱 Audinate 網站。

<https://www.audinate.com/>

另可在 Yamaha Pro Audio 網站查詢關於 Dante 的各種資訊。

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

註

使用 Dante 網路時，請勿使用網路交換器的 EEE 功能 *。

EEE 功能可能會造成時脈同步效能下降，以及導致音訊中斷。

因此，請注意下列事項：

- 使用受管交換器時，請針對用於 Dante 的所有連接埠關閉 EEE 功能。請勿使用無法關閉 EEE 功能的交換器。
- 使用非受管交換器時，請勿使用支援 EEE 功能的交換器。這類交換器無法關閉 EEE 功能。

* EEE (節能乙太網) 是一種能在低網路流量期間減少耗電量的技術，又稱為綠色乙太網及 IEEE802.3az。

原始碼散布

成品出廠後三年期間，您得針對本產品中任何依據 GNU 通用公共許可證 / GNU 次通用公共許可證 / RealNetworks 公共來源授權取得授權的部分，以書面文件向 Yamaha 索取的原始碼並寄至下列地址：

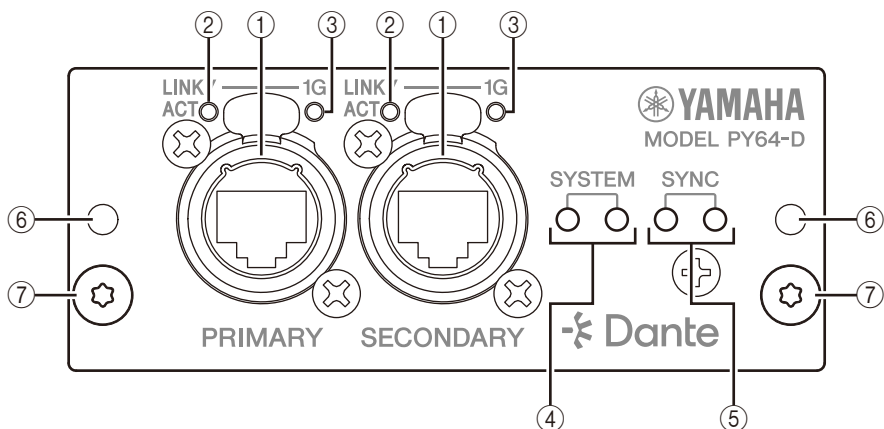
10-1 Nakazawa-cho, Chuo-ku, Hamamatsu, 430-8650, JAPAN
Global Marketing & Sales Department, Professional Solutions Division,
Musical Instruments & Audio Products Business Unit, Yamaha Corporation

原始碼將免費提供，但是我們得要求您補償 Yamaha 將原始碼交付給您所產生的費用。原始碼可透過下列 URL 下載：

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

- 請注意，對於因 Yamaha (或經 Yamaha 授權者) 以外的第三方針對本產品所做的軟體變更 (新增 / 刪除) 而造成的任何損壞，我們不負任何責任。
- 請注意，我們不保證能重複使用 Yamaha 向公共領域散布的原始碼。Yamaha 對原始碼不負任何責任。

組件名稱及功能



① Dante [PRIMARY]/[SECONDARY]

這類 etherCON CAT5e (RJ-45) 接頭可用來將本介面卡連接至 Dante 音訊網路，並具備取樣率轉換器 (SRC)。另外也支援星形及菊鏈設定。

須知

請使用 CAT5e 以上認證的 STP (遮蔽雙絞線) 纜線，以免發生電磁干擾。使用 STP 纜線時，請務必使用導電膠帶或其他方式，以讓接頭的金屬部分與纜線的遮蔽部分彼此接觸。

註

- 建議使用與 Neutrik etherCON CAT5e 接頭相容的 RJ-45 插頭，亦可使用具有標準 RJ-45 插頭的纜線。
- 纜線的最大長度會因纜線類型而有所不同。使用 CAT5e 纜線時，最長可連接 100 m 的纜線，以在裝置間傳送資料。
- 若預定使用目標裝置不支援的取樣頻率，且需將介面卡安裝至該裝置，請開啟 SRC。在目標裝置開啟或關閉 SRC。
- SRC 會以 24 位元進行處理。

② [LINK/ACT]

代表 [PRIMARY] 和 [SECONDARY] 接頭的通訊狀態。

對應的接頭傳送或接收資料時，指示燈會閃綠燈。

③ [1G]

代表對應 [PRIMARY] 和 [SECONDARY] 接頭的連線狀態。

若指示燈亮橘燈，代表對應接頭已連接至 Gigabit 乙太網路。若指示燈熄滅，代表連線發生問題。此時，請檢查所有的網路纜線及交換器。若無法解決問題，請聯絡 Yamaha 經銷商。

④ [SYSTEM]

代表本介面卡的運作狀態。

一般運作期間，綠色指示燈會亮起，紅色指示燈熄滅。開啟裝置時，若綠色指示燈熄滅且紅色指示燈亮起或閃爍，代表發生錯誤。

如需指示燈含意的詳細資訊，請參閱「狀態 / 訊息清單」*。

⑤ [SYNC]

代表 Dante 時脈同步的狀態。

綠色指示燈亮起時，代表安裝本介面卡的裝置為次要時脈裝置，且時脈同步中。綠色指示燈閃爍時，代表安裝本介面卡的裝置為主動時脈裝置。開啟介面卡時，綠色指示燈應亮起或閃爍；若指示燈沒有亮起或閃爍，代表發生錯誤。

如需 [SYNC] 指示燈恆亮或閃爍橘燈的詳細資訊，或是各指示燈的含意，請參閱「狀態 / 訊息清單」*。

⑥ 螺絲孔

這些螺絲孔可用來將本介面卡固定於主機上。請使用主機隨附的螺絲來固定本介面卡。如未正確固定本介面卡，可能會導致零部件故障或無法運作。

⑦ 把手

如要從主機中取出本介面卡，請握住這些把手，同時將介面卡朝您的方向拉出。

* 狀態 / 訊息清單

本清單說明 [SYSTEM] 及 [SYNC] 指示燈的含意，以及需採取的適當對應措施。

<https://manual.yamaha.com/pa/dante/status/>



規格

通用規格

取樣頻率範圍

	音質
Dante 時脈	44.1 kHz、48 kHz、88.2 kHz、96 kHz (- 4% / - 0.1%/+0.1%/+4.167%)
取樣率轉換器	44.1 kHz - 4% 至 96 kHz +4.167%

溫度範圍

音質	最低	類型	最高	單位
操作溫度範圍	0	-	40	°C
儲存溫度範圍	- 20	-	60	°C

數位輸入 / 輸出特性

端子	格式	資料長度	實體層標準	音訊	接口
PRIMARY、 SECONDARY	Dante	24 位元 / 32 位元 ^{*1}	1000BASE-T	64 聲道輸入 64 聲道輸出	etherCON CAT5e ^{*2 *3}

*1 具備取樣率轉換器。

支援資料長度：僅限 24 位元

支援頻率：44.1 kHz - 4% 至 96 kHz +4.167%

*2 接線需使用 CAT5e 以上纜線。

*3 接線時，建議使用 STP 纜線。

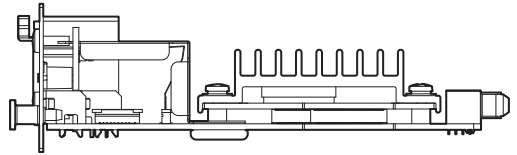
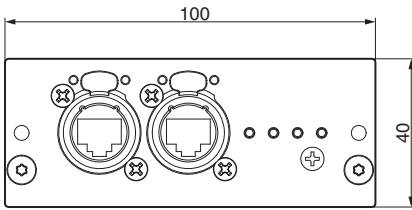
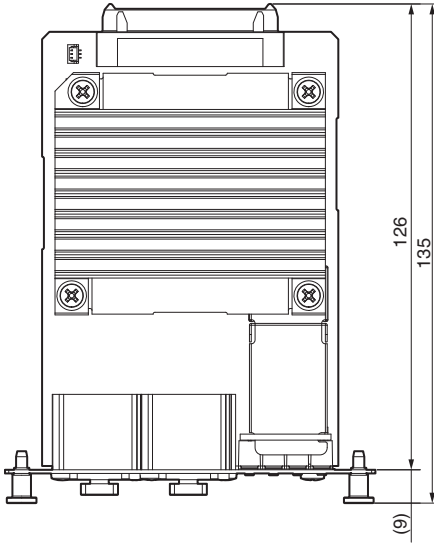
耗電量：

5.5 W

尺寸 (寬 x 高 x 深) 及淨重：

100 mm × 40 mm × 135 mm，0.3 kg

尺寸



單位：mm
外觀顏色的 Munsell 近似值：N2.25

本使用說明書的內容為出版時最新的技術規格。請至 Yamaha 網站下載最新版本的使用說明書。

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Version 2.0, January 2004
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