



## 4REA4 Controller V1.52 – May 2024

This document forms part of an update package which includes software installers, firmware and other reference documents.

### New Features

- **4REA4 can now be used with SD-Rack ESS type 32 BIT DAC and ADC cards.**  
**PLEASE NOTE that a maximum of 2 x 32 BIT ADC cards can be installed in a 4REA4 at the same time.**  
**DO NOT attempt to install more than 2 of this card type.**

- **Rack parameter control now available for DQ Racks in addition to A168D and A164D**

- **Compatibility with DMI-Dante64@96 with IP Zynq HC**

The DMI Base card (the DiGiCo side) requires firmware version V105 & FPGA 27/2/23 to work.

These versions of firmware are bundled in the 4REA4 V1.52 Updater.

Cards shipped from the factory will have a sticker on the PCB with their originally installed firmware version.

The Dante firmware for the new module is 4.2.4.5 (4.2.4 DiGiCo Build). All versions are currently compatible with each other. This is not guaranteed in the future. The DMI card and its Firmware will have a new identity suffixed with a “z” in Dante controller. (see bundled Tech Note TN580)

The screenshot displays the web interface for the 4REA4 controller. It is divided into several sections:

- Manufacturer Information:** Manufacturer: DiGiCo (UK) Ltd, Model Name: DiGiCo DMI DANTE 64@96z, Product Version: 4.2.4, Software Version: 4.2.4.5, Firmware Version: 4.2.4.3.
- Dante Information:** Dante Model: DanteIP-Zynq+HC, Dante Firmware Version: 4.2.4.5, Hardware Version: 4.2.4.6, ROM/Boot Version: 1.0.0.
- Clock Synchronization:** Mute Status: Unmuted, Sync Status: Locked, External Word Clock: No, Preferred: No, Frequency Offset: 30 ppm.
- Interfaces:** Shows a 1G Ethernet port with IP Address: 192.168.1.18, MAC Address: 00:04:C4:0D:45:B3, Tx Utilization: 31 Mbps, Errors: 0, and Rx Utilization: 108 Mbps, Errors: 0. There is a 'Clear Counters' button.

On the right side, there is a 'DMI Port 1' tab selected, showing 'DANTE 6496z' information:

Card Temperature	31 °C	Current	Available	
SPIID Version	UF V3.0	Firmware	105	105
		FPGA Code	27/02/2023	27/02/2023

Update buttons are present for the Firmware and FPGA Code. Below this, the 'Sample Rate Conversion' section shows:

- 4REA4 Sample Rate: 96000 Hz
- Dante Sample Rate: 96002 Hz
- SRC Inactive

The 'Rack Control Mode' is set to 'Full Control' (indicated by a green button), with an option for 'Full Control/Receive Only'.

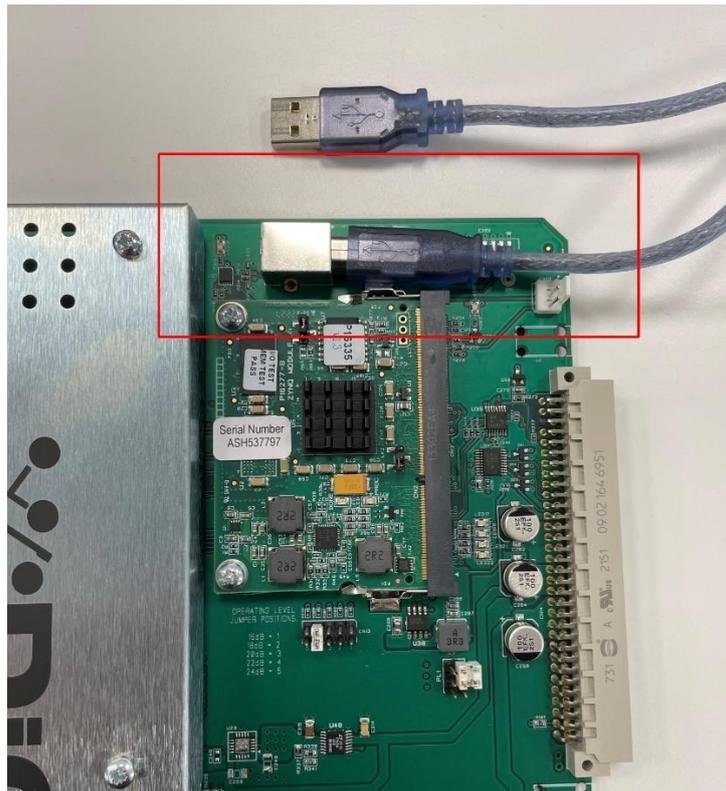
- **Compatibility with A168, A168D, A164 & A164D IO boxes equipped with Cirrus converters.**
- **There is a new APAD app V1.50.10 available from the App Store which is compatible with this version.**

## Procedure to update SD-Rack ESS type 32 Bit cards.

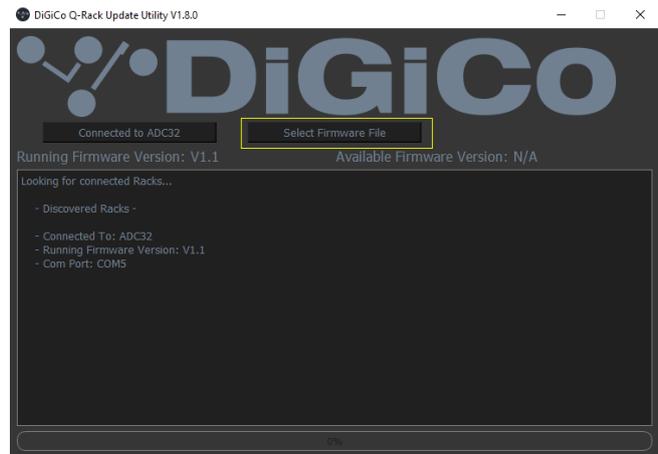
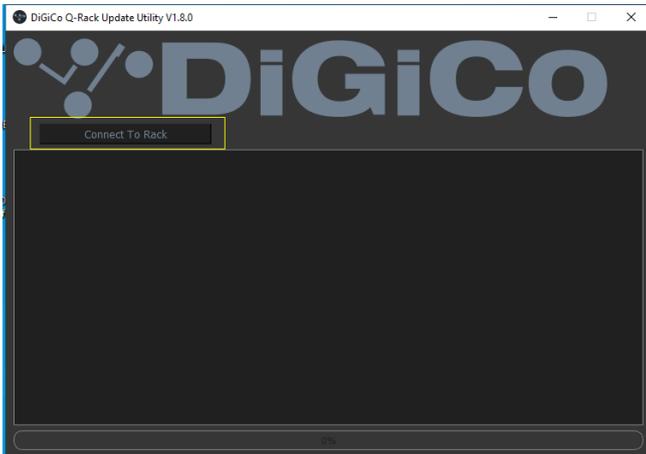
For ESS Type ADC cards:

This card type requires V1.5 of card firmware.

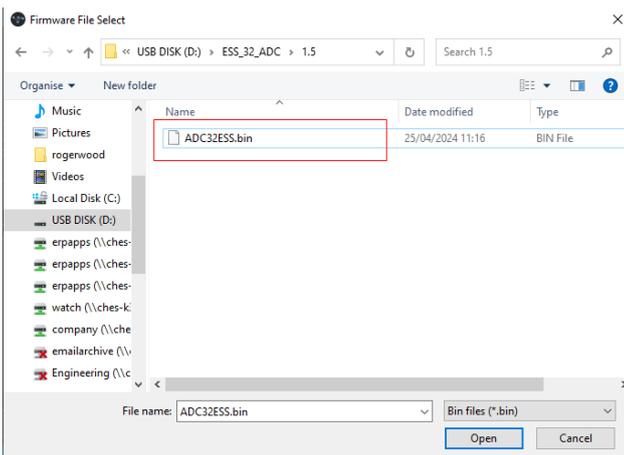
- First, switch off and disconnect the 4REA4 from its power source.
- Remove all of the Local IO cards from the 4REA4 by unscrewing the retaining bolts and carefully pulling the cards from the unit.
- Connect a USB A>B cable to the ESS ADC card's USB port.
- Replace the card in the 4REA4 and be careful that the USB cable does not get trapped.
- Switch on the 4REA4 unit.



- Unzip DiGiCo Q-Rack Update Utility\_V1.8.zip from the install package and run DiGiCo Q-Rack Update Utility\_V1.8\RackApp\DiGiCo Q-Rack Update Utility.exe
- Click “Connect To Rack” and a message should be displayed indicating the card type and its current firmware version.



- Click “Select Firmware File” and choose the file named ADC32ESS.bin – click the “Open” button.
- Check that the button on the left of the screen is labelled “Update to V1.5” and then click this button. The update process will start – it will take a few minutes and then notify you when complete.



- You can now switch off the 4REA4, remove the card and disconnect the USB cable.
- Repeat the process for any other cards of the same type.
- When all cards are updated, switch off the 4REA4, reinstall all required cards and repower.

**For ESS Type DAC cards:**

**This card type requires V35 of card firmware and an FPGA dated 22/3/24.**

Please refer to the document named “**Updating P16336 Firmware to v35.pdf**” bundled in this package.