General BIOS Configuration Guide for Dell MFF PC

The Combination of the FMT724M Powered Medical grade monitor and the MFF PC is a fantastic modular solution, providing the best of both worlds of balanced Medical grade user interface with practicality of upgrading the Processor and replacing the PC easily and at low cost compared with AIO Solutions.

Our 724M medical monitors can power many different micro and thin client PC options whilst still offering a DC power option for peripherals such as a Zebra QLN Label printer or Welsh Alyn Vital Signs monitor from the 12V or 15V DC out terminals on the monitor

To get the best performance from the DC out option a few small changes need to be made in the BIOS setup. These are quick and easy to change. Below will guide you through- this is specific to DELL Models

Recommended DELL Micro Form Factor Purchase configuration for optimum use with the Freeway Med-Tech 724M System

Recommended to only use a Dell MFF PC that has a 65W power Supply

Freeway Med-Tech would recommend using the Dell MFF PC's fitted with the latest Gen **Intel® Core™** lower power / same speed processor

As this has the lowest power consumption and will deliver uncompromised performance in a power efficient platform, these Intel® Core™ processor operate at only 35W, which enables more power for other systems with better performance and longer battery life. **– these are available at the same price as the 130W PSU models**
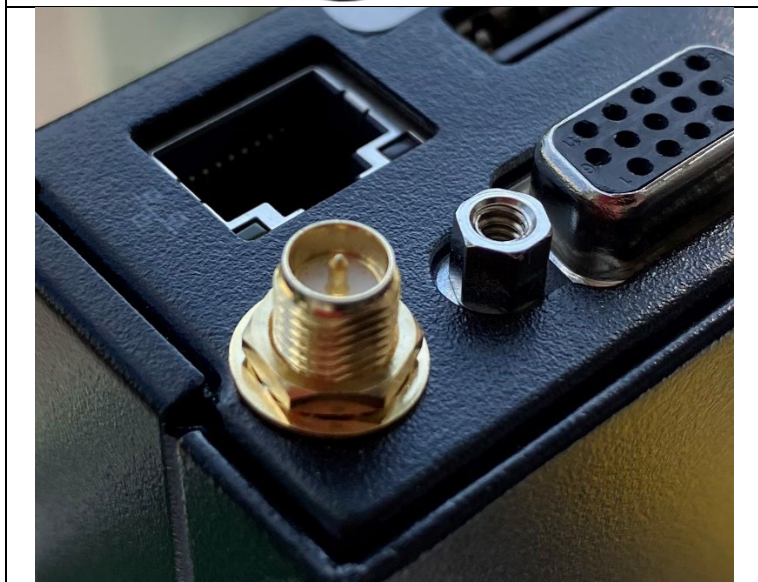
Speak with your Dell Customer services agent to ensure you are buying the right model

Dell MFF equipped with 65W Power Supply

Freeway Med-Tech would recommend specifying the Dell MFF PC is supplied with the 65W Power Supply, this ensures that the Power needs of the Dell are matched exactly by the 65W DC power output of the MT700-24T DC output.
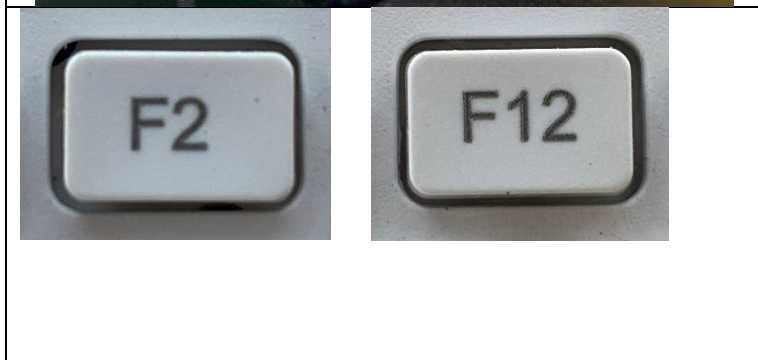
To ensure full CPU Speed, the Dell PSU will also need to be connected inline with the special MT700 DC cable provided with the monitor, for Dell PSID generation.

Dell MFF equipped with RP- SMA

Freeway Med-Tech would recommend specifying the Dell MFF PC is also purchased with a Rear panel RP-SMA socket.
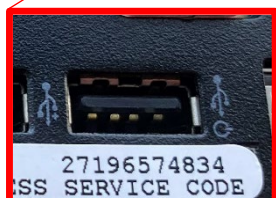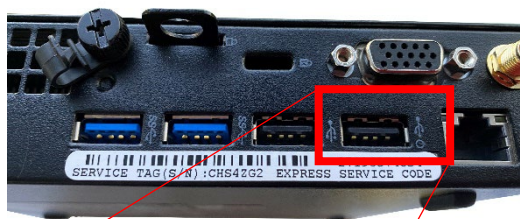
This connection works in conjunction with the Intel high gain dBi built in areal inside the monitor, and provide as standard are WiFi cables to connect the monitors areal inside the back of the screen to the MFF PC that is encapsulated inside an aluminium Box to reduce its EMI / RF emission, which would otherwise make it hard to receive WiFi signal without the RP-SMA connection.

To Enter BIOS setup

At power on press F2 or F12 to enter BIOS setup. We advise not to press and Hold, as the System may read this as a stuck key – so advise instead to "pulse" the button.
Please Note some Dells models such as Optiplex 3040/ 3050 / 3060 require F2 and later models such as 3070 require F12
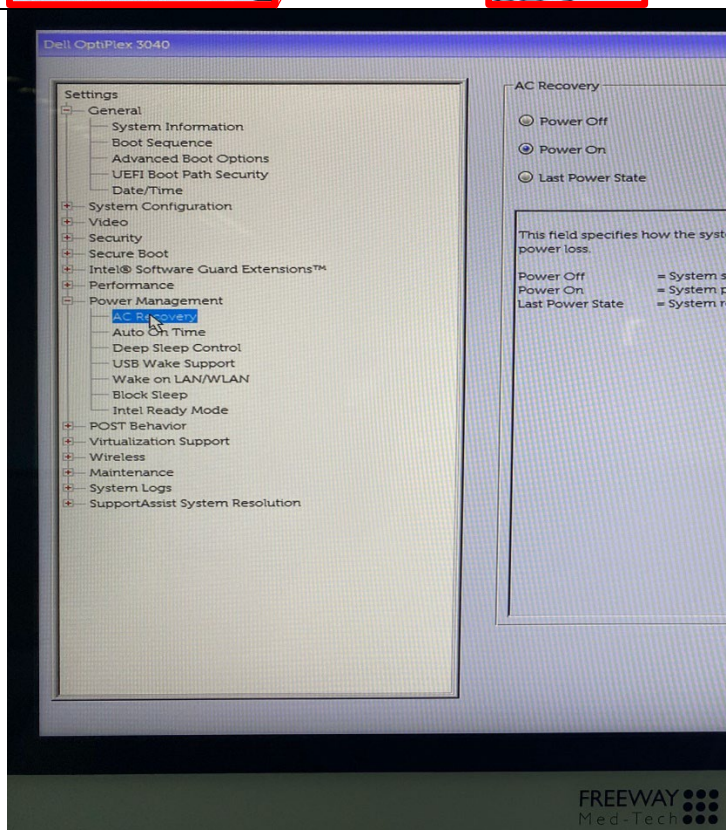
Smart Power on USB port

Dell PC's have a VERY small label for their "Smart power on" USB ports, depending upon model year it can either be a small power sign (see left) or a power flash arrow.

This is very small and can be hard to spot but one of the ports will have this symbol.

Please ensure your keyboard is plugged into this port if you intend to power on from keyboard.
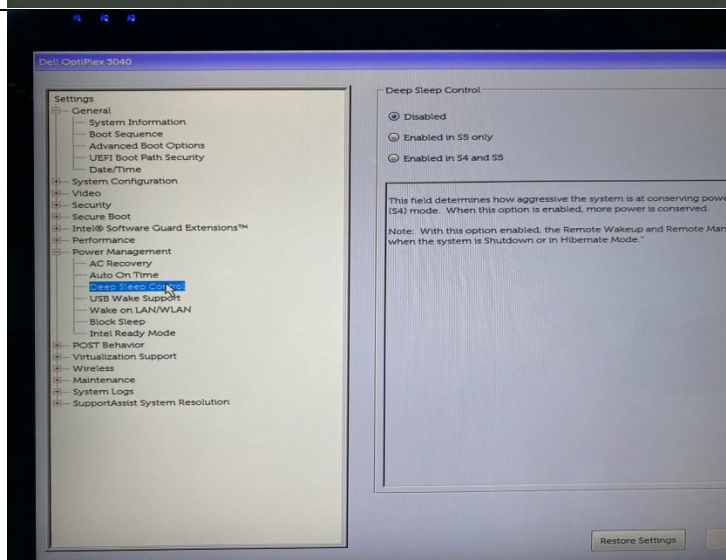

AC Recovery

Once in the BIOS Set up screen, using the mouse pointer or keyboard arrows navigate to the "**Power Management**" section.

Click the Expand button on this section to show all sub levels.

Within this Sub menu located "**AC RECOVERY**" and then set to "**Power on**".

This will mean the PC will power up as soon as power is applied via the DC out power cable from the monitor.
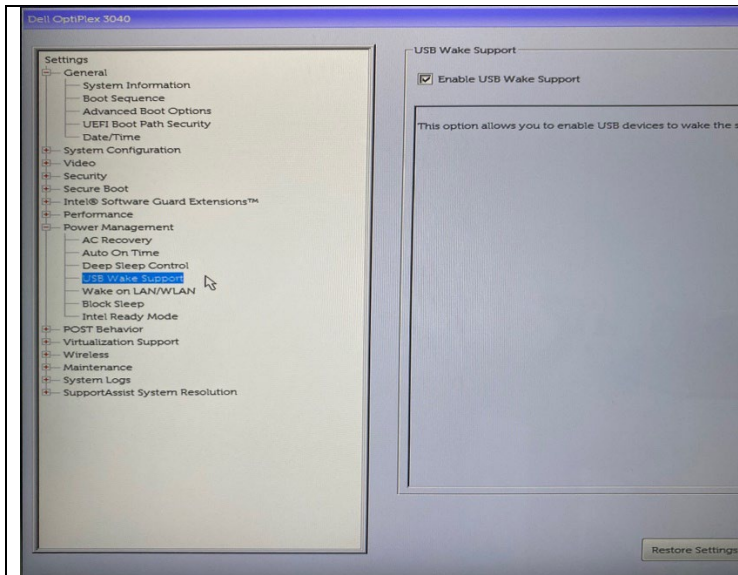
A Freeway Med-Tech 724M will supply DC power as soon as a battery is inserted. This will then power the Dell and auto turn on the screen.
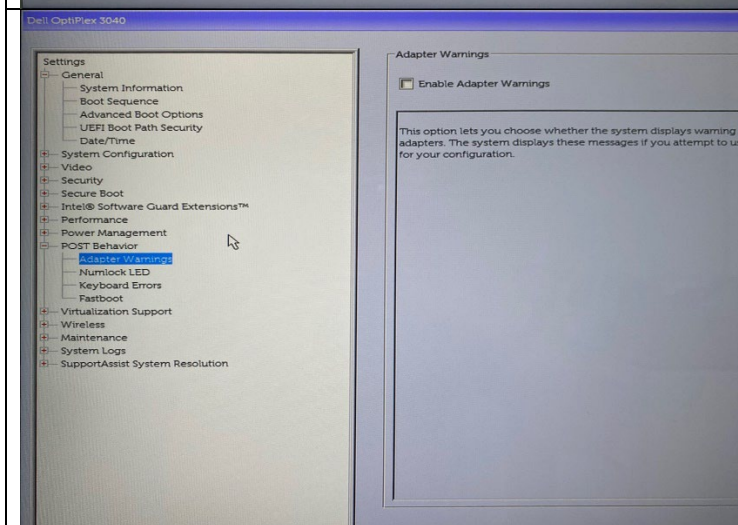

Deep Sleep Control

Optional setting but if you would like to use keyboard to wake the Dell from sleep we suggest to **disable deep sleep control**.

IMPORTANT NOTE: Whilst there are now hundreds of manufacturers of medical sealed keyboards, so it is hard to ensure the following applies to all model and makes, it has been found that in majority of use that waking the unit is erratic with S4/S5 modes enabled on Medical sealed keyboards

	USB Wake / Sleep Support If you intend to wake units from sleep with keyboard ensure this is **enabled**.
	Adapter Warnings If using a Freeway Med-Tech Custom Y Adapter Power lead, with Dell PSU Connected, this section is not relevant as this will provide the MFF PC with the Dell PSID. However if the design is being used with a straight DC power cable for even lower power consumption, This straight cable is not able to output the data string an original Dell PSU creates. The PC will show an adapter warning at POST. To disable this warning, please un tick the "**enable adapter warnings"** option. Note because the PC is unable to identify the PSU it will run in a slightly reduced power mode. This does not impact performance for a regular WoW and feedback from many hundreds of units deployed shows this does not hamper useability.

This document is designed to be a guide only and there may be different versions of Dell BIOS that differ slightly, however If you required additional support we are always happy to assist you. Please email support@freewaymedical.co.uk or call us on 01635 866 717