

Customer-Specific Board Versions at F&S

Customers have the possibility to buy standard boards from F&S.
(see: www.fsembedded.com->Products->Product Family->Product->Variants)

F&S also offers customer-specific board versions.

Hardware: Board variants with changed interfaces, memory extension, additional plug connectors

Software: Defined bootloader, kernel, settings and pre-installed application software

The minimum order quantity and the pricing are advised by F&S sales.

There are **one-off costs of minimum Euro 300,--** for the creation of documents, placement program, testing program etc.

Customer Hardware Release Guide

Data for the release of customer-specific hardware

The following document describes which information the customer has to pass to F&S, in order to order customer-specific hardware from F&S.

In case the data is not provided as requested below, F&S cannot guarantee that the hardware is created as the customer requests it.

Please send us all information listed below in **one** e-mail.

The following data is required for production release:

1. Up-to-now used standard board
2. CPU version
3. Memory (i.e. RAM, SLC NAND Flash, eMMC)
4. Interfaces
5. Plug Connectors (if possible use a picture to clarify)
6. Other

Please do not forget to tell us which quantities of the customer-specific board you need.
We will check your requests and inform you of our possibilities and pricing.

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Customer Software Release Guide

The following document describes which information the customer has to pass to F&S, in order to order customer-specific software from F&S. In case the data is not provided as requested below, F&S cannot guarantee that the software is created and installed as the customer requests. Please send us all information listed below in **one** e-mail.

The following data is required for production release:

1. Nboot3
2. Eboot (Windows Embedded).....3
3. Kernel (Windows Embedded)3
4. Bootloader Settings (optional PSD) (Windows Embedded).....3
5. Registry Settings as a Text File (Windows Embedded)4
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1. Nboot

F&S requires either the complete file name (e.g.: „nbootimx6ul_secure_32.bin“) or you send us your Nboot file.

2. Eboot (Windows Embedded)

F&S requires either the complete file name (e.g.: „ebootIMX6UL_11.nb0“) or you send us your Eboot file.

3. Kernel (Windows Embedded)

If you want a standard kernel, F&S either requires the complete file name (e.g.: „XIPIMX6_C7E_V220_161207.bin“) or you send us the kernel as a file.

If you want a customer-specific kernel, please send us the kernel as a file.

4. Bootloader Settings (optional PSD) (Windows Embedded)

In case you need additional/ non-standard settings in the bootloader (Partition, Debug-Messages Off, ...), please send us either a complete PSD-File or a log of the Eboot information. In order to get this information, start the board in Eboot (Press „S“ when turning on the board) and press „i“. Now the output of data will be provided.

```

„:> i
NetDCUA9 boot options valid   : YES
Start Download after reboot   : no
Download kernel to           : FLASH
Kernel load/store compression : OFF
Size of area for OS image     : 60 MB
Size of FFSDISK              : 30 MB
Format of FFSDISK            : FAT
Size of 2nd partition        : 166 MB
Format of 2nd partition      : EXTENDED
F3S serial number            :
Launch image after reboot     : yes
Kernel checksum calculation   : disabled
Output debug messages at serial port : yes
Bootloader Network setting valid : YES
-MAC Address                  : 0:5:51:B:B5:DF
-Use DHCP to get IP address: YES
WindowsCE MAC address valid   : yes
-WindowsCE MAC Address        : 0:5:51:B:B5:DF“
    
```

5. Registry Settings as a Text File (Windows Embedded)

In case the customer software requires settings in the registry, F&S needs a text file, containing all registry settings. These may look as follows:

```
„reg open \"System\CurrentControlSet\Control\Power\State\Resuming"
reg set value default dword 2
reg set value Flags dword 0
REM -----
reg open \init
reg set value Launch120 string \ffsdisk\iq3_gui\iq3_gui.exe
reg set value Depend120 hex 64,00
reg save“
```

The text file should be named according to the following scheme:

Registry_*BoardName*_*CustomerName*_*CreationDate*.txt
(„Registry_NetDCUA5_CustomerXY_240417.txt“)

6. Customer-Specific Data from FFSDISK (Windows Embedded)

In case F&S should copy customer files (Programs, dll's, ...) on FFS-Disk during production, please send us a packed folder, containing the structured content of the FFS-Disk. Please do not send us all files individually and attach a list of the structure. The folder may look as follows:

```
„File1.exe;
StartUP\File2.exe
Test\File3.dll
Test\Folder2\File4.xml“
```

In this example, File1 is directly saved onto FFSDisk, File2 is saved in the folder StartUp on FFSDisk etc.

The packed folder should be named according to the following scheme:

FFSDISK_*BoardName*_*CustomerName*_*CreationDate*.txt
(„FFSDISK_NetDCUA5_CustomerXY_240417.zip“)

7. Boot Screen (Windows Embedded)

In case you need a boot screen, please send us the boot screen as „.bmp“-file as well as your display settings.

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