MicroSD card

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A micro SD card is included in the following devices: • 52/XC Cores (52-740xC or later),

- 52/XC2 Cores,
- 52/XD Cores,
- 52/XS Cores (52-180xC or later)
- 52/XS2 Cores

This card acts as a dongle and the licenses stored on the microSD card are bound to the internal serial number of this microSD card.

All available software licenses and feature upgrade licenses are stored on the microSD card. This includes the following licenses:

52-8511 - PC TFT View Software 52-8550 - Routing/Scheduling Software 52-8551 - Routing Software 52-8552 - Routing Software, single matrix 52-8553 - Additional license for 52-8550 52-8554 - Additional license for 52-8551 52-8555 - Monitoring Software 52-8562 - Snapshot Manager Software 52-8563 - Remote Control Software 52-8564 - Remote Control Software, float. 52-8565 - DSP Control Software

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52-8566 - DSP Control Software, float. 52-8571 - Pro-Bel Protocol SW-P-02 52-8572 - ESAM-II control protocol 52-8575 - MIDI Protocol Converter Software 52-8581 - Enhanced DSP Processing 52-8582 - XC/XS Core Audio Network 52-8583 - XC/XS Core Control Networking 52-8584 - XC2 Core Gold upgrade 52-8585 - XC2 Core Silver upgrade 52-8591 - SNMP Support for DHDOS

The microSD card also includes the firmware, the configuration and snapshots of this core device.

Note

In case of a replacement of the core device, it is only required to put the microSD card from the installed device to the replacement device (which has to be the same device type as the device that will be replaced). When the replaced core device will be switched on, it will boot with the last configuration state as the first device.





MicroSD card from DHD with hologram label and serial number

It is possible to copy the content of the microSD card, but the licenses will not work on this copy because they depend on the internal unique serial number of the microSD card.



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# **Position at Core devices**

In the following pictures you can see the position of the microSD card slot at each core.

Device	Location of the microSD Card and microSD card orientation	Picture
<b>52/XC2 Core</b> 52-7420, 52-7410	<ul> <li>At the left side of the core.</li> <li>Insert the micro SD card with pins on the top side</li> </ul>	
<b>52/XC Core</b> 52-740xC or later	<ul> <li>At the front panel of the core, behind the 19"-Adapterpanel.</li> <li>Insert the micro SD card with pins on the bottom side</li> </ul>	
<b>52/XS2 IO Core</b> 52-1830	<ul><li>At the left side of the core, behind the rack mount bracket.</li><li>Insert the micro SD card with pins on the top side</li></ul>	

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Device	Location of the microSD Card and microSD card orientation	Picture
<b>52/XS2 Core</b> 52-1810	<ul><li>At the left side of the core.</li><li>Insert the micro SD card with pins on the top side</li></ul>	
52/XS Core 52-180xC or later	<ul> <li>At the front panel of the core, behind the 19"-Adapterpanel.</li> <li>Insert the micro SD card with pins on the bottom side</li> </ul>	
52/XD Core with 52-7456 XD2 Controller	At the rear panel of the core. • Insert the micro SD card with pins on the top side	
52/XD Core with 52-7450 XD Controller	At the rear panel of the core. • Insert the micro SD card with pins on the top side	

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MicroSD card, side with license code.

MicroSD card, side with pins.

# **Firmware License**

The firmware license is the license which is required for operation of each DHD core or DSP frame.

After loading the firmware license into the device (see <u>Load licenses into the device</u>) it is permanently stored in a separate flash memory. The firmware license will not be stored on the microSD card.

Usually, the cores will be delivered without a firmware license. This firmware license will be sent via e-mail (see <u>Receive</u> the Firmware License)



### Receive the firmware license code

The firmware license will be generated automatically after the accountants' department received and booked the full payment for the order.

The generated firmware license will be sent automatically to the e-mail address which received the order confirmation. If required one or more additional e-mail destinations can be assigned for receiving the license codes.

The sender for this e-mail is support@dhd-audio.de



### Software Licenses and Feature Upgrade Licenses

All DHD PC software products and all feature upgrades require a license code for the activation in the device.

Usually, the licenses will be already activated in the device if the software licenses or feature upgrade licenses are ordered together with hardware.

To activate a new license on a device, see Load licenses into the device.

The licenses are always hardware related. To order new licenses, DHD always requires the serial number either of the device or the microSD card. All available software licenses and feature upgrade licenses are stored either on a microSD card or on an internal memory.

The following table shows the storage place for each device type and the serial number type which is required to order a new license:

device	licenses are stored on microSD card	licenses are stored on internal memory	serial number type for new licenses
<b>52/XD (all revisions)</b> 52-7450, 52-7456	х		Serial Number Software (MicroSDCard)
<b>52/XC (revisions A or B)</b> 52-7400A, 52-7400B, 52- 7402A, 52-7402B, 52-7403A, 52-7403B		Х	Serial Number Device
<b>52/XC (revisions C or later), 52/XC2 (all revisions)</b> 52-7400C, 52-7402C, 52- 7403C, 52-7420, 52-7410	x		Serial Number Software (MicroSDCard)
<b>52/XS (revisions A or B)</b> 52-1801A, 52-1801B, 52- 1804A, 52-1804B		Х	Serial Number Device
<b>52/XS (revisions C or later), 52/XS2 (all revisions)</b> 52-1801C, 52-1804C, 52- 1830, 52-1810	Х		Serial Number Software (MicroSDCard)
<b>52/XR</b> 52-6063, 52-6066		Х	Serial Number Device
<b>52/MB</b> 52-5063		х	Serial Number Device
<b>52/RM4200D</b> RM420-852, RM420-853		Х	Serial Number Device

You can find the different types of serial numbers in the Maintenance Window.

Serial Number Software (MicroSDCard): it will be shown on the License State page of the Maintenance Window, see <u>Available licenses in the device</u> (follow until step 5)

Serial Number Device: it will be shown on the Firmware State page of the Maintenance Window, see <u>Available</u> licenses in the device (follow until step 4)

For more information about the microSD card, see microSD card.

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### **Receive the license codes**

All software licenses and feature upgrade licenses will be delivered as license codes on the delivery note. (for firmware license, see <u>Receive the firmware license code</u>).

You can review all your delivery notes on the update website. To review the license codes, follow these steps:

1. When you are logged in, in the project area click on Current Orders or Project History to see an overview of your orders.

» Edit Account         WHD Downloads
me to our download website
ome to our download website
website you will find recommended and current versions of our configuration software Toolbox4 00D), Toolbox45 (RM420-027, RM420-078, RM420-079) and Toolbox5 (52/MX, 52/XR,
4200D). Furthermore, you can download additional software and current firmware updates. use the links below to proceed to the different sections.
ase note:
our System runs stable and if you do NOT need any new feature coming with a new software ion, updating your system is NOT necessary.
box5 and Series 52 firmware will be constantly enhanced and bugfixed. Toolbox4 and the opriate firmware are only updated to solve major bugs. Both, Toolbox and firmware, are ely associated to each other. In each download section, DHD GmbH only offers related
ions of firmware and Toolbox. Please make sure to download both, Toolbox and firmware, re starting any update process! s <b>strongly recommended to use only related versions of firmware and Toolbox.</b>
DHD software is always checked in extensive tests. Though it could happen, that principally in
ends software is aways directed in extensive tests. Introduct napper, that principally in emly special configurations some new features distributed with a new software might be gy. If you encounter some of these bugs, we would truly appreciate your bug-report to help us in work. Please give us a call.
se visit our official website (www.dhd-audio.com) to find all manuals and documents of the products.

History area

2. In the Current Orders area or Project History area you can see a list with orders. In the Task column, click on a task number to see the corresponding documents.

				Aktraduen
	»» Proje	ct History		
4200D				
10	Task	Order-No:	Details	Date
(D	210446		Table Road and	2012-07-04
	210390			2012-06-12
	209710	deu	CONTRACTOR (1996)	2011-11-03
	209560		And reasons have been	2011-09-23
	208321		States and the states and	2010-07-30
are	20739		We there are a set of	2009-10-06
e	207136	deu	ALL DOTTING CONTRACTOR	2009-07-17
	206987			2009-05-27
	206555		factories, and being suggestion	2008-12-29
on Examples	206394		ALL ALT MANY AND ALL	2008-10-30
	205323	deu	control controls	2007-12-10
aining	205147			2007-11-02
	204905		Mr. Hendelson	2007-09-04
	204548		and a start of the second second	2007-05-04
Center	200880		and the second second second	2003-08-29

The Project History area shows an overview of the orders

3. In the Details column of the delivery note row, click 🖾 to open the delivery note as PDF-file.

		(**************	Abb	eden. 33
			Later a	
Project Hi	istory			
Order:	208321			
Datum:	2010-07-3	30		
Ordernumber:				
Comment:	B. 110			
Date	Number	Туре	Format	Details
2011-07-07	311877	delivery note	PRINT	率
2011-07-07	311877_prot	protocol	PDF	21st
	Order: Datum: Ordernumber: Comment: Date 2011-07-07	Datum:         2010-07-3           Ordernumber:         Comment:           Date         Number           2011-07-07         311877	>>> Project History         Order:       208321         Datum:       2010-07-30         Ordernumber:       Comment:         Date       Number       Type         2011-07-07       311877       delivery note	>>>       Project History         Order:       208321         Datum:       2010-07-30         Ordernumber:       Comment:         Date       Number       Type         Date       Number       Format         2011-07-07       311877       delivery note       PRINT

delivery note.

4. In the delivery note document you can find the license code below the serial number and the bar code of each software product.



# Available licenses in the device

The Maintenance Window of the Toolbox5 software provides an overview of active licenses in the device.

To show this overview, follow these steps:

- 1. Connect the your configuration PC to the Core.
- 2. Open the Toolbox5 software. In the View menu, select Maintenance Window or press F7 on your keyboard. The Maintenance Window opens.
- 3. In the left part of the Maintenance Window click on the device for which you would like to enter a license.

LTD System Maintenance	
<u>File Device Protocol Update</u>	
05_07_C4	
	A
	k l
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Index Operat	ing System Firmware
0	A MERICAN PROVIDENCE AND A MERICAN AND A
RM5200 Main	tenance
Systemtime	Fri Jan 11 14:18:48 2013
Running Time	
Serial Number	
	stem (Version DHD Series52 imx27 Version 1.0.10 - Di 15. Mai 15:46:44 CEST 2012 )
Firmware (Ve	rsion :Version : 7.2.14.1 )
	III. F
2013-01-11 14:18:24.628 MSG UDP 7400_DEMO	Level: 0, Code: 0x82000190, Information: Module 52-7400 ID 1 Code 🔺
2013-01-11 14:18:25.336 MSG UDP XCho	Level: 0, Code: 0x82000190, Information: Module 52-7400 ID 1 Code Level: 0, Code: 0x82000190, Information: Module 52-7400 ID 1 Code
2013-01-11 14:18:25.446 MSG UDP 05_05_E2	Level: 0, Code: 0x82000190, Information: Module 52-7400 ID I Code
11.01.2013 14:18:54 05_07_C4 10.5.7.196	Connected

Maintenance Window

4. In the right part of the Maintenance Window, click Firmware, the Firmware State page will be shown.

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Index Linear Infe	mation serial number Port State	
Index License Info	mation serial number Port State	
Firmware State		
Version	7.2.28.1	
Serial Number Device	216309018	
Serial Number 52- 7027	216107147	
MAC-Address	00:0A:63:05:0b:B7	
Hour Meter	141	
Firmware uptime	1 days 00:41:31	
CyclTime	30 ms	
Running as	MASTER	
Restart Reason	0, Data 0x00000000	
Sync Module	1	
Systemfrequency	48000Hz	
Sync Source	2	
Core Temp	41°C	

Maintenance Window - Firmware State page

5. Click License Information. Now, the license states will be shown for the selected device.

		она	
Index Firmware Port State			
License State			
Serial Number Hardware	W115333002		
Firmware License	Remaining Operation Hours 753		
Hour Meter	47		
Serial Number Software (MicroSDCard)	S401088245		
52-8581 Enhanced DSP Processing	unlimited valid		
52-8582 XC/XS Core Audio Network	unlimited valid		
52-8583 XC/XS Core Control Networking	unlimited valid		
52-8550 Routing/Scheduling Software	2 Users		
52-8562 Snapshot Manager Software	1 Users		
52-8563 Remote Control Software	1 Users		
52-8564 Remote Control Software, float.	1 Users		
temporary License 52-8564	2 Users until Sat Jul 7 02:00:00 2012		
52-8565 DSP Control Software	1 Users		
52-8566 DSP Control Software, float.	1 Users		
52-8591 SNMP Support for DHDOS	1 Users		
52-8576 DHD OS Python Script Extension	10 Users		
	m		+

Maintenance Window - License State page

Usually, the core will be delivered without a firmware license. This firmware license will be sent via e-mail (see <u>Receiving</u> the <u>Firmware License</u>). Until a valid license is entered, the <u>Remaining</u> Operation Hours will be shown here. After 800 hours operation time without a valid license, invalid will be shown.

If a valid firmware license is entered to the core, unlimited valid will be displayed.



When a license for a PC software or a feature upgrade is available in the device, the product number, the product name and the number of available licenses will be shown in that window.

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# Load licenses into the device

The following steps can be used for firmware licenses, PC software licenses or feature upgrade licenses.

- 1. Connect the PC with the Toolbox5 software to the Core.
- 2. Open the Toolbox5 Software. In the View menu, select Maintenance Window or press F7 on the Keyboard. The Maintenance Window opens.
- 3. In the left part of the Maintenance Window, select the device for which you would like to enter a license.

The system Maintenance						
<u>File Device Protocol Update</u>	C C C C C C					
		ng System Firmwan	e			рно
	RM5200 Maint					
	Systemtime Running Time Serial Number	Fri Jan 11 14:18:48 0 day 0:44 05-07-c4	3 2013			
		tem (Version DHD Se sion :Version : 7.2.14	eries52 imx27 Version I.1 )	1.0.10 - Di 15. N	lai 15:46:44 CEST (	2012)
	•		m			
2013-01-11 14:18:24.628 MSG 2013-01-11 14:18:25.336 MSG 2013-01-11 14:18:25.446 MSG	UDP XCho	Level: 0,	Code: 0x82000190, Code: 0x82000190, Code: 0x82000190,	Information:	Module 52-7400	
						ID 1 Code

Maintenance Window

4. In the Maintenance Windows, in the Device menu, click on Enter License. The Store License window opens.

itore licens	se	X
License c	ode	

Store License window

5. Enter the license code into the text box and click OK. If the license code is correct, in the lower part of the Maintenance Window (the part that shows the log messages), license stored is shown for the corresponding device.

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To check the validity of the license, see the  $\underline{\mbox{Available licenses in the device}}$  section.

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