

feature	52/XD2 Cores				52/XC2 Cores						52/XS2 Cores			
	52-7440A / 52-7441A / 52-7442A with 52-7456 XD2 controller				52-7420		52-7423				52-1810		52-1830	
	4x DSP Module 52-7460	3x DSP Module 52-7460	2x DSP Module 52-7460	1x DSP Module 52-7460	1 additional DSP Module 52-7460	no additional DSP module	1 additional DSP Module 52-7460 requires 52-8584 and 52-8585 license	Gold upgrade requires 52-8584 and 52-8585 license	Silver upgrade requires 52-8585 license	basic system	52-1810 with extended feature upgrade license 52-1950	Standard SXConfig	52-1830 with extended feature upgrade license 52-1950	Standard SXConfig/DXConfig
fader processing <sup>(1)</sup>	64	64	48	24	44	24	44	24	20	16	16		8	
fader layers <sup>(1)</sup>	yes				yes		yes	yes	no	no	no	no	no	no
fader channels	250				250	150	250	150		150	predefined	150	predefined	
output functions	120				120		120	120	80	40	40	predefined	40	predefined
super output functions	18				18		18			SW option <sup>(2)</sup> : 18	SW option <sup>(2)</sup> : 18	0	SW option <sup>(2)</sup> : 18	0
logic functions	200				200		200	200	80	40	40	predefined	40	predefined
summing busses (stereo) (PGM+Aux+CF <sup>(3)</sup> +PFL)	48				40	32	40	32	24	16	16	11 (predefined: 2x PGM, 2x Aux, 6x CF, 1x PFL)	16	11 (predefined: 2x PGM, 2x Aux, 6x CF, 1x PFL)
mix minus busses (stereo) (within the limit of max. number of summing busses)	30				24	16	24	16	12	6	6			
PFL busses (stereo) (within the limit of max. number of summing busses)	4x 2 (2 for each virtual mixer)				4x 2 (2 for each virtual mixer)		4x 2 (2 for each virtual mixer)		2x 2 (2 for each virtual mixer)	1	1			
summing bus format 5.1	SW option <sup>(2)</sup>				SW option <sup>(2)</sup>		SW option <sup>(2)</sup>				SW option <sup>(2)</sup>	not available	SW option <sup>(2)</sup>	not available
summing bus signal types: Voice and Music	SW option <sup>(2)</sup>				SW option <sup>(2)</sup>		SW option <sup>(2)</sup>				SW option <sup>(2)</sup>	not available	SW option <sup>(2)</sup>	not available
delay <sup>(4)</sup>	SW option <sup>(2)</sup> : delay functions of 1 sec or 10 sec available for fader and fix processing				SW option <sup>(2)</sup> : delay functions of 1 sec or 10 sec available for fader and fix processing		SW option <sup>(2)</sup> : delay functions of 1 sec or 10 sec available for fader and fix processing				SW option <sup>(2)</sup> : 48 delay functions of 1 sec or 10 sec available for fader and fix processing, a total of max. 170 seconds, a total of max. 48 stereo channels	SW option <sup>(2)</sup> : 1 sec. / fader	SW option <sup>(2)</sup> : 48 delay functions of 1 sec or 10 sec available for fader and fix processing, a total of max. 170 seconds, a total of max. 48 stereo channels	SW option <sup>(2)</sup> : 1 sec. / fader
	max. 680 seconds, max. 192 stereo channels	max. 510 seconds, max. 144 stereo channels	max. 340 seconds, max. 96 stereo channels	max. 170 seconds, max. 48 stereo channels	max. 340 seconds, max. 96 stereo channels	max. 170 seconds, max. 48 stereo channels	max. 340 seconds, max. 96 stereo channels	max. 170 seconds, max. 48 stereo channels						
virtual keys	100				100		100		40	5	0			
clock logics	yes				yes		yes		0	0	0			
selector logics	yes				yes		yes		10	0	0			
level detects	48				48	20	48	20	10	5	5	5 predefined	5	5 predefined
Loudness Meter (EBU R128) (within the limit of max. number of level detects)	SW option <sup>(2)</sup> : 20	SW option <sup>(2)</sup> : 15	SW option <sup>(2)</sup> : 10	SW option <sup>(2)</sup> : 5	SW option <sup>(2)</sup> : 10	SW option <sup>(2)</sup> : 5	SW option <sup>(2)</sup> : 10	SW option <sup>(2)</sup> : 5		SW option <sup>(2)</sup> : 5	no	SW option <sup>(2)</sup> : 5	no	
logic delay	20				20		20		10	5	5	0	5	0
scripts	100				100		100		10	0	0			
Potentiometer Controls (virtual) mixer DSP core	20				20		20		2	1	1			
Automix	yes				yes		yes		yes	yes	yes	no	yes	no
processing the talkback matrix	yes				SW option <sup>(5)</sup>		SW option <sup>(5)</sup>	SW option <sup>(5)</sup>	SW option <sup>(5)</sup>	no	no			
member of talkback matrix	yes				SW option <sup>(5)</sup>		SW option <sup>(5)</sup>				SW option <sup>(5)</sup>			
global resources	yes				SW option <sup>(5)</sup>		SW option <sup>(5)</sup>				SW option <sup>(5)</sup>			
global logics (global logic exchange with DHD devices)	yes				SW option <sup>(5)</sup>		SW option <sup>(5)</sup>				SW option <sup>(5)</sup>			
networking (direct logic exchange with DHD devices)	yes				SW option <sup>(5)</sup>		SW option <sup>(5)</sup>				SW option <sup>(5)</sup>			
serial ports	2 (each: RS232 or RS422)				1 (RS232)		1 (RS232)				1 (RS232)			
Gigabit Audio / MADI SFP cages	SFP cages only for Gigabit Audio: 52-7440: 12 52-7441: 8 52-7442: 4 SFP cages only for MADI (HW option <sup>(6)</sup> ): 52-7456: 2				HW option <sup>(9)</sup> : 4		HW option <sup>(9)</sup> : 4				HW option <sup>(9)</sup> : 2	HW option <sup>(10)</sup> : 1	HW option <sup>(9)</sup> : 2	HW option <sup>(10)</sup> : 1

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	4x DSP Module 52-7460	3x DSP Module 52-7460	2x DSP Module 52-7460	1x DSP Module 52-7460	1 additional DSP Module 52-7460	no additional DSP module	1 additional DSP Module 52-7460 requires 52-8584 and 52-8585 license	Gold upgrade requires 52-8584 and 52-8585 license	Silver upgrade requires 52-8585 license	basic system	52-1810 with extended feature upgrade license 52-1950	Standard SXConfig	52-1830 with extended feature upgrade license 52-1950	Standard SXConfig/DXConfig
Connection of Concentrator (52-7310, 52-7320, 52-7301, 52-7300) to GA SFP cages	yes				yes						yes	no	yes	no
GA Device interlink (multi-channel audio connection with XC/XD/XS cores via GA port), 512/512 ch, bidirectional	HW option <sup>(8)</sup>				HW option <sup>(8)</sup>						HW option <sup>(8)</sup>			
APC ports	8				12						8	8 (max. 3 can be used for I/O modules)	4	4 (max. 3 can be used for I/O modules)
APC Device interlink (multi-channel audio connection with XC/XD/XS cores via APC port), 48/48 ch, bidirectional	SW option <sup>(7)</sup>				SW option <sup>(7)</sup>						SW option <sup>(7)</sup>			
redundant Dante ports for 64/64ch. AoIP connections	no				HW option <sup>(11)</sup>						HW option <sup>(11)</sup>			
Dante 4/4ch AoIP connection via ETH1 port	no				yes						yes			
usage of 52/MX or 52/RX control modules	yes				yes						yes	no	yes	no
usage of 52/SX control modules	yes				yes						yes	yes	yes	yes
usage of 52/DX control module	yes				yes						yes	no	yes	yes
usage of 52/TX control module	yes				yes						yes	no	yes	no
pushbutton functions	configurable				configurable						configurable	predefined	configurable	predefined
Maximum configurable number of different central TFT displays	16				16						16	1 predefined	16	1 predefined
customisable TFT views	yes				yes						yes	predefined	yes	predefined
Toolbox configuration capability	yes				yes						yes	no	yes	no
sync input	BNC: Wordclock, AES11, PAL, NTSC, HD Tri-Level HW option <sup>(6)(8)</sup> : MADI, GA SW option <sup>(7)</sup> : APC				BNC: Wordclock, AES11, PAL, NTSC, HD Tri-Level Ethernet: Dante HW option <sup>(6)(8)</sup> : MADI, GA SW option <sup>(7)</sup> : APC						BNC: Wordclock, AES11 Ethernet: Dante HW option <sup>(6)(8)</sup> : MADI, GA SW option <sup>(7)</sup> : APC			
Config size extension <sup>(12)</sup>	yes				yes						yes			

All values are maximum values, availability depends on number and type of used features. Please ask DHD support for more information.

(1) The assignment of fader processings to layers works in the following way:

Up to 24 "DSP" faders, 4 layers, with 52-7410 (feature level 3), 52-7420 XC2 core  
24 "physical" Faders (no layers)  
12 "physical" Faders each with 2 Layers  
8 "physical" Faders each with 3 Layers  
6 "physical" Faders each with 4 Layers

Motorfaders are required when working with Layers.

(2) additional license required: 52-8581 - Enhanced DSP Processing

(3) CF: Clean Feed, mix minus bus, n-1 bus

(4) Internal DSP processing is always stereo. Therefore the maximum number of mono delays is equal to the maximum number of stereo channels. The right channel is unused in case of mono processing.

(5) additional license required: 52-8583 - XC/XS Core Control Networking

(6) MADI SFP module (52-7321 or 52-7325) required for each SFP cage

Up to 44 "DSP" faders, 4 layers, with 52-7420 XC2 core and additional DSP card (52-7460)  
44 "physical" Faders (no layers)  
22 "physical" Faders each with 2 Layers  
14 "physical" Faders each with 3 Layers  
11 "physical" Faders each with 4 Layers

(7) additional license required: 52-8582 - XC/XS Core Audio Network

(8) XC Gigabit Audio port (SFP modules 52-7391 or 52-7395) required

(9) GA/MADI SFP cages on XC2 Cores and XS2 Cores (with 52-1950 license) can be used with:

- 52-7321/52-7325 MADI SFP modules (include DHD license code) or
- 52-7391/52-7395 XC Gigabit Audio port (include DHD license code) for Core-to-Core connections or
- to connect Concentrators / MADI Concentrators with their included SFP modules (no DHD license code)

(10) GA/MADI SFP cage on XS2 Cores can be used with:

- 1x 52-7321/52-7325 MADI SFP modules (include DHD license code) and/or
- 1x 52-7391/52-7395 XC Gigabit Audio port (include DHD license code) for Core-to-Core connections for using 2x MADI or 2x GA Core-to-Core-Connection or Concentrators, a 52-1950 license is required.

(11) XC2 Dante IP Audio Interface (52-7080) required for the expansion slot

(12) The Config size is the part of the Toolbox project, loaded to the device and stored on the microSD.

Up to 64 "DSP" faders, 4 layers, with 52-744x XD core, and at least 3 DSP cards (52-7460)  
64 "physical" Faders (no layers)  
32 "physical" Faders each with 2 Layers  
21 "physical" Faders each with 3 Layers  
16 "physical" Faders each with 4 Layers