



SD3624

RGB-backlit

Positive Mode DFSTN LCD

Keyswitch

with Multi-Segment Color MSC™

and Legacy Mode™ Support

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GENERAL DESCRIPTION

The SD3624 is a special version within the Sxxxx Series of **RGB**-backlit LCD switches with all new **MSC** electronics. The SD3624 feature **Multi Segment Color™** allowing for different **RGB** background colors in the upper and lower segments of the display and supports Legacy Mode™.



The SD3624 with command driven serial interfaces integrate a graphical negative DFSTN 64 by 32 pixel liquid crystal display with **RGB** background lighting operating in Positive Mode™ in a push-button switch design.

The SD3624 keys are controlled via a serial interface to the integrated **MSC** electronics, which control the interface, display and two segment backlighting. SD3624 keys self-initialize without external setup commands. Data only needs to be transmitted when a change is made to the display or background colors.

The SD3624 switches support Legacy Mode™ to provide backwards compatibility for legacy systems originally designed for Screenkeys LC24.2 Trend switches.

Only six contact terminals are used to provide power, clock and data lines as well as the switch contacts. The contact pins of the switch mechanism are isolated from the internal electronics.

IMPROVEMENTS AND INNOVATIONS

- **Multi Segment Color™**
- NEW - extended input voltage range of 4.5 – 5.5 Volt
- IMPROVED - contrast ratio
- IMPROVED - viewing angle
- Positive Mode™ display
- **Legacy Mode™ support**

COMPATIBILITY

The SD3624 switches have the same form factor as the SA3624 switches and are pin and command compatible. They support Legacy Mode™ communication. Please refer to the details on page 20 for special timing conditions.

Note: **Mixed installation of SA/SB/SI/SM and SC/SD/SE switches in the same key matrix is NOT recommended since the different AT and MSC electronics may cause unintended timing and communications issues.**

Mixed installation of SC/SD/SE switches is possible since they share the same MSC electronics.

PRODUCT FEATURES

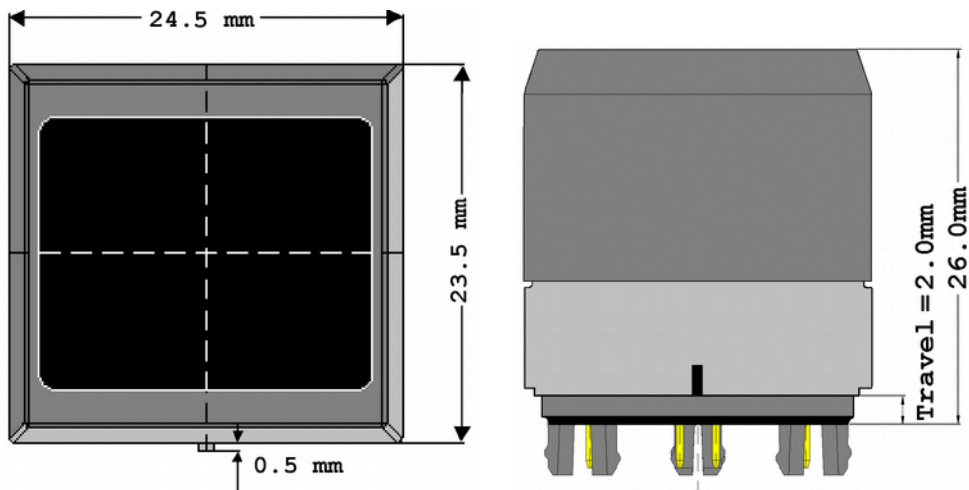
Feature	Description
Resolution	36 x 24 pixels
Multi Segment Color MSC™ RGB Colors	more than 1 million RGB background colors each in the upper and lower segment
Color Calibration	Improved color calibration results in maximum uniformity across RGB color spectrum based on MSC electronics.
Self-Initialisation	All keys self-initialise. No external setup commands required.
Low Power Consumption	Less than 60mA maximum current is needed when bright white backlighting is selected. Typical value is less than 25mA with one of the RGB colors.
Interfaces	Synchronous serial 16-bit interfaces <i>(custom protocols available upon request)</i>
Legacy Mode™	SD3624 switches support Legacy Mode™ for backwards compatibility to ScreenKeys LC24.2 Trend switches. Please refer to the Legacy Mode™ chapter (page 17) for details.
External clock	128 kHz up to 4MHz
Maximum speed	up to 4 Mbaud
Operating supply	4.5V - 5.5V
Keyswitch type	tactile, 2.0 mm travel with over-travel protection
Keyswitch life time	> 3.0 million cycles
Contact resistance	< 200 Ohm
Operating temperature	0°C to 55°C
Storage temperature	-20°C to 65°C

MECHANICAL CHARACTERISTICS

Dimensions

Dimensions (X x Y x Z) 24.5 x 23.5 x 26.0 mm +/- 0,2 mm

Screen size (X x Y) 20.0 x 16.5 mm +/- 0.1 mm



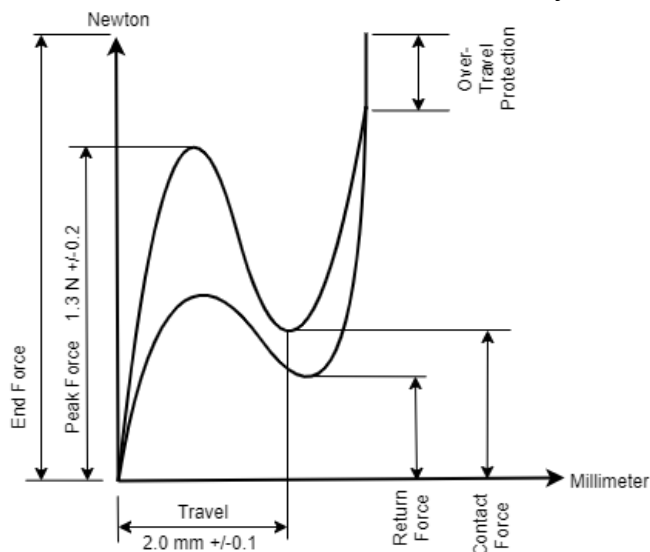
Keyswitch

Keyswitch Key stroke 2.0 mm +/- 0.1 mm; tactile

Operation force: 1.3 N +/- 0.2 N

Over travel protection: yes

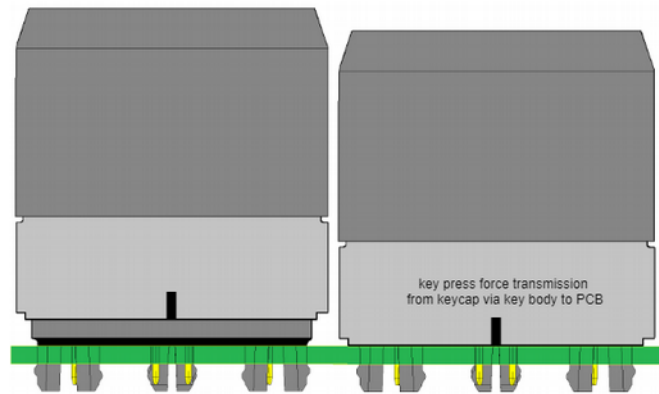
Lifetime: > 3 million cycles



Over-Travel Protection

In order to protect the carbon pill contact element and extend the lifetime of the keyswitch element, SD3624 switches are over-travel protected by the design of the keyswitch housing.

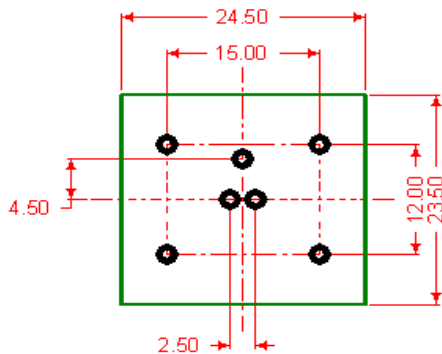
When the keyswitch is pressed and before the carbon pill element is fully compressed, the force is transmitted from the keycap through the keyswitch housing onto the circuit board. Any additional force that is applied to the switch is not transmitted to the contact element, but to the PCB, protecting the contact element from excessive wear and damage.



SR6432 normal and pressed with over-travel protection

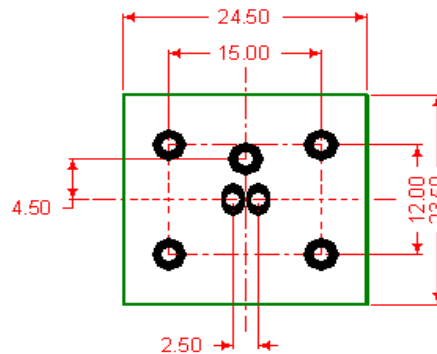
PCB Footprint

Direct PCB Mount (top view) Socket Mount (top view)



ALL DIMENSIONS IN mm
 ALL DIMENSIONS ± 0.10 mm
 ALL HOLE SIZES $+0.10/-0.00$ mm

⊙ $\varnothing 1.00$ PTH HOLE x $\varnothing 2.00$ PADS

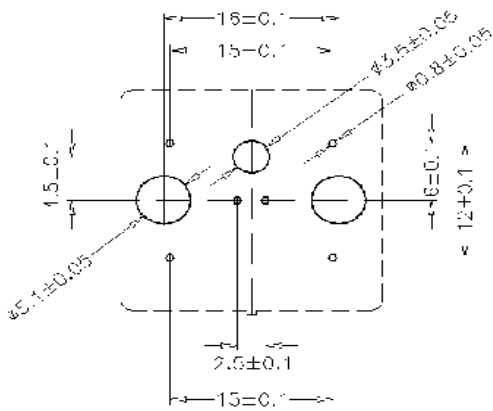


⊙ $\varnothing 1.50$ PTH HOLE x $\varnothing 2.00 \times 3.20$ PADS

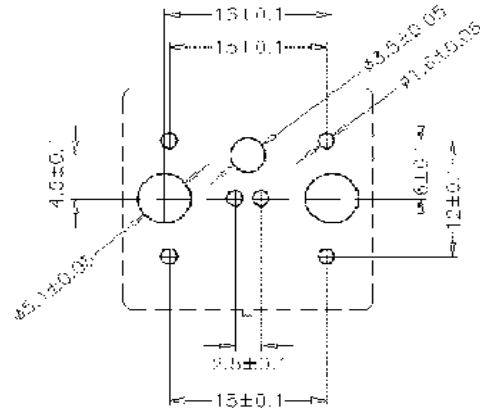
⊙ $\varnothing 1.50$ PTH HOLE x $\varnothing 3.20$ PADS

Drill Masks

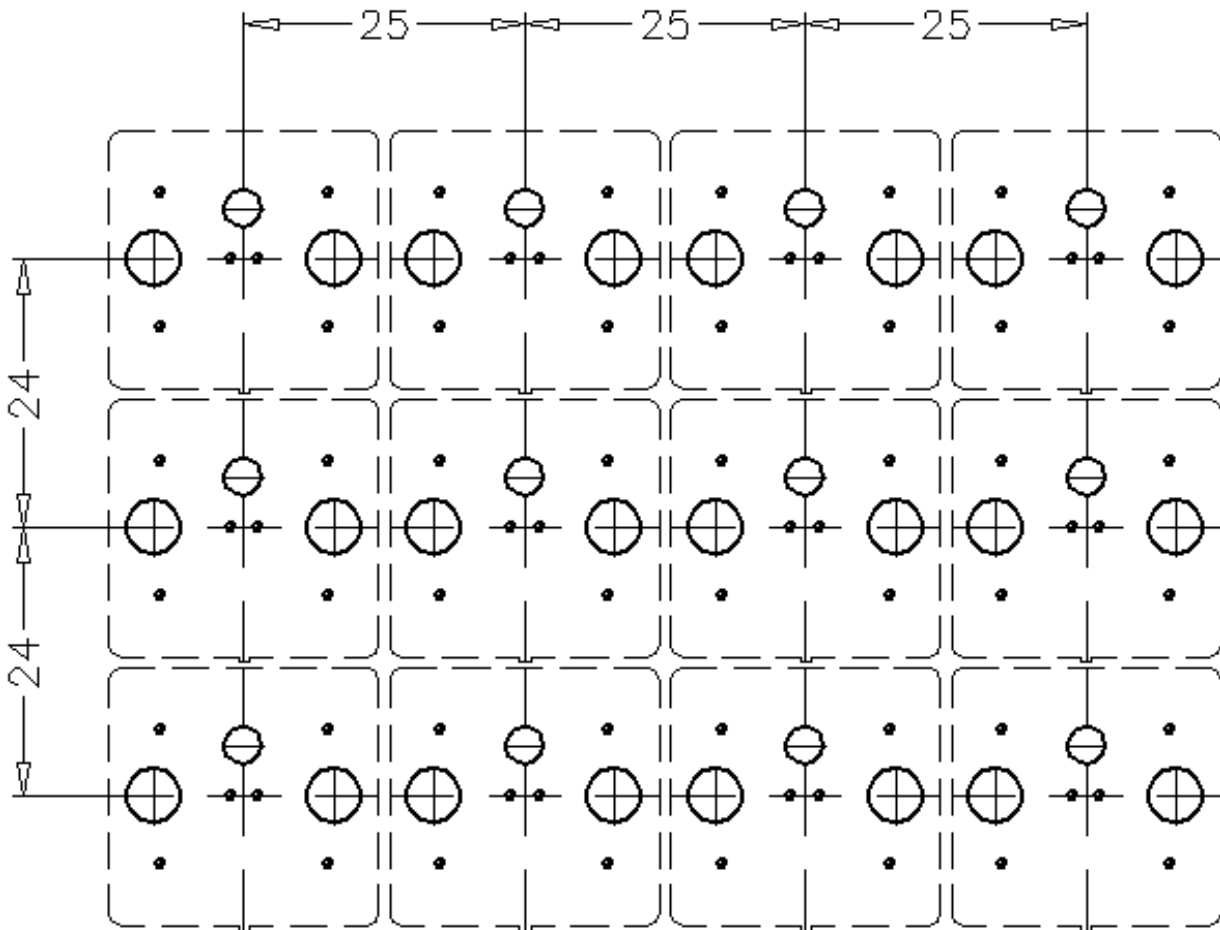
for direct soldering
(top view)



for use with socket pins
(top view)



NOTE: Recommended distance for array assembly is 1mm between each key.



Mounting Methods

Socket mountable (see corresponding Drill Mask). Socket pins (**SP0000**) are used for field-exchangeable mounting.

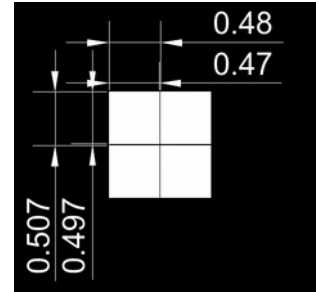
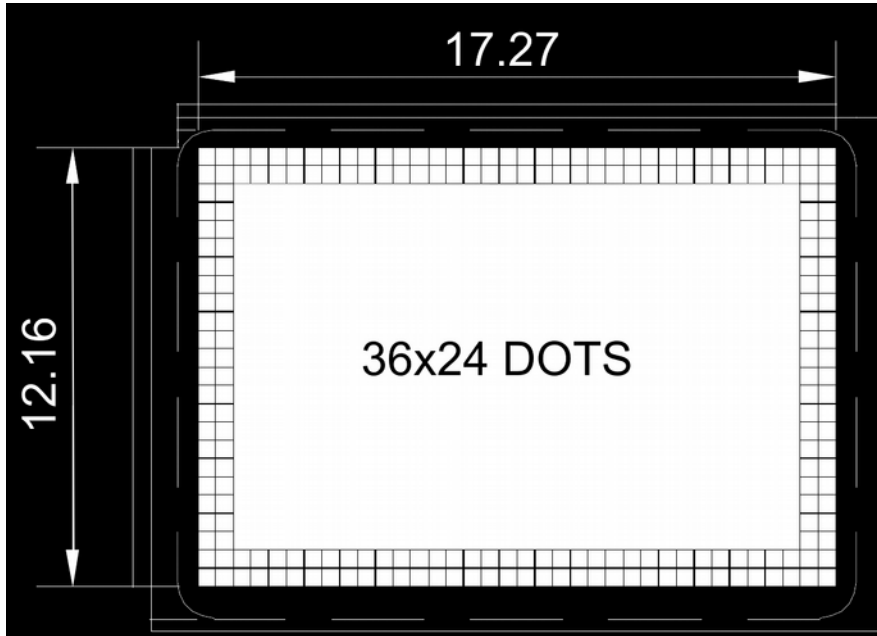
Through-hole mountable on PCBs with 1.6mm and 2.0mm thickness.

Manual soldering: max. 350° C for max. 3.5 seconds per pin

Wave soldering: 260° C for 10 seconds

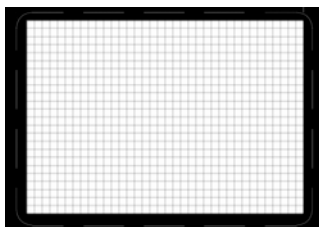
LIQUID CRYSTAL DISPLAY

LCD Type	DFSTN transmissive negative
Active area (X x Y)	17.27 mm x 12.16 mm
Pixel Size (X x Y)	0.47 mm x 0.497 mm
Pixel Pitch	0.01 mm
Viewing Direction	6 o'clock

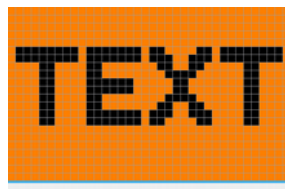


Positive Mode™ Display

The SD3624 use a transmissive negative DFSTN LCD. In the SD3624 switches the active area (see below) is set to display in Positive Mode™ as default to allow for use in legacy systems designed for positive LCDs. As a result, although the SD3624 LCD is inverse, text and bitmaps will be displays with black pixels on color background. The Mode command 0x47 (see pages 19-21) may be used to switch between Positive and Standard Mode.



active area transmissive



pixels on = black-on-color



SD3624 with TEXT and orange background color

RGB BACKLIGHTING

The Sxnnnn switches feature **RGB** backlighting in over 1 million colors. In order to achieve uniform colors for switches installed in large consoles or operator panels, the Sxnnnn switches are programmed during production in a proprietary calibration process to produce the same color values even though there are differences in color for each LED.

The SD3624 switches use quad **RGB** LEDs that are calibrated for color uniformity using an updated calibration system.

The backlighting is under software control and modulating the operating voltage will not affect the brightness of the LEDs.

MULTI-SEGMENT COLOR™

The SD3624 switches introduce Multi-Segment Color™ by allowing different backlight colors in the upper and lower segment of the LCD. For the MSC command and a MSC example see pages 19 and 21 respectively.



Multi-Segment Color™ allows you to use color, for example, for grouping switches with similar functions (same color in upper segment) and, at the same time, provide different operating status information via a different color in the lower segment of the LCD (ON/OFF/HOLD).

NOTE: Since the colors of the upper and lower segment mix at the transition between the segments, care should be given to the bitmap and color selection.

ENVIRONMENTAL SPECIFICATIONS

Operating temperature 0°C to +55°C
 Humidity up to 75% relative humidity at 65°C

ELECTRICAL SPECIFICATIONS

Operating voltage 4.5V to 5.5 V
 Current consumption max. 60 mA; typ. < 25 mA; min. 12 mA (backlite off)
 Contact resistance < 200 Ohm
 Insulating resistance > 100 MOhm

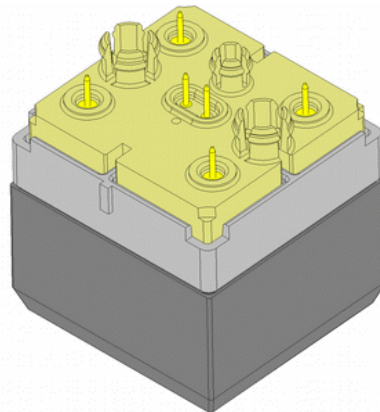
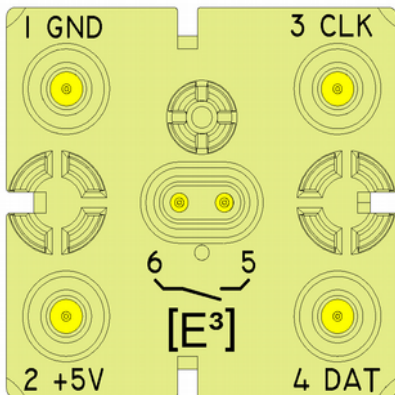
Symbol	Parameter	Min.	Typ.	Max.	Unit
V _{DD} *	Operating voltage	4.5		5.5	V
I _{DD}	Supply current	8	<25	65	mA
V _{IN}	Input voltage on any pin			V _{SS} -0.3 - V _{DD} +0.3	V
I _{DIO}	Output data current sunk/source			+/- 5	mA
I _{CIO}	Output clock current sunk/source			+/- 5	mA
V _{IL}	Input low level voltage	V _{SS} -0.3		0.3 x V _{DD}	V
V _{IH}	Input high level voltage	0.7 x V _{DD}		V _{DD} + 0.3	V
C _{CIO}	I/O clock pin capacitance		15		pF
C _{DIO} ^{*3)}	I/O data pin capacitance		15		pF

* Display contrast is hardware controlled and does not depend on the operating voltage

INTERFACING

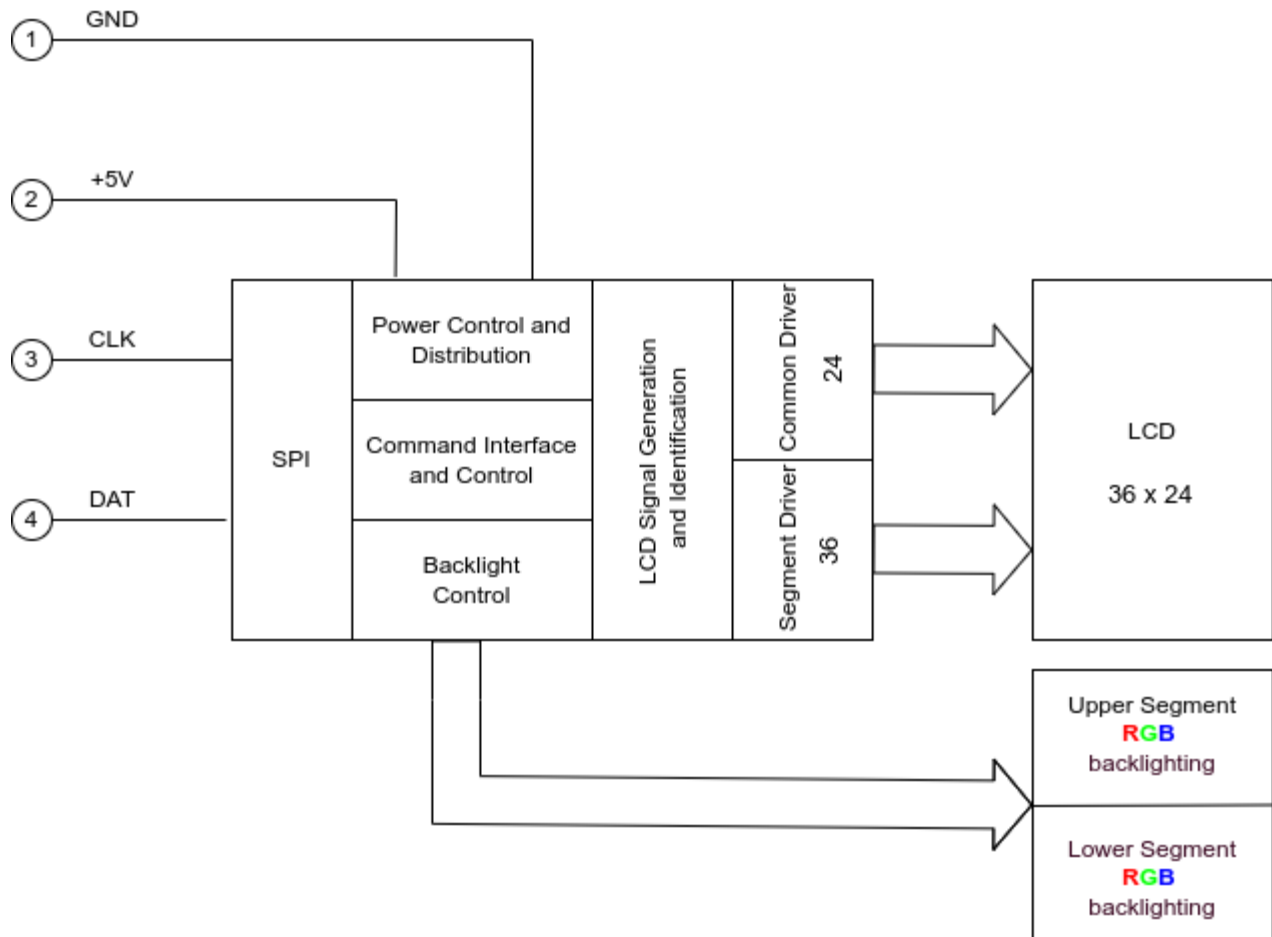
Contact Terminals

Pin	Symbol	Description	Comment
1	GND	negative (ground) power terminal	0.0 V
2	+ 5V	positive power terminal	+4.5 V – +5.5 V
3	CLOCK	clock line to synchronize data write and for internal use	128 kHz – 4 Mhz HIGH when inactive
4	DATA	command and data line to internal MSC electronics	HIGH when inactive; see data format for details
5	SW1	switch contact	contact resistance < 200 Ohm
6	SW2	switch contact	contact resistance < 200 Ohm



Pin View (terminal name and number are marked on the keyswitch)

Block Diagram

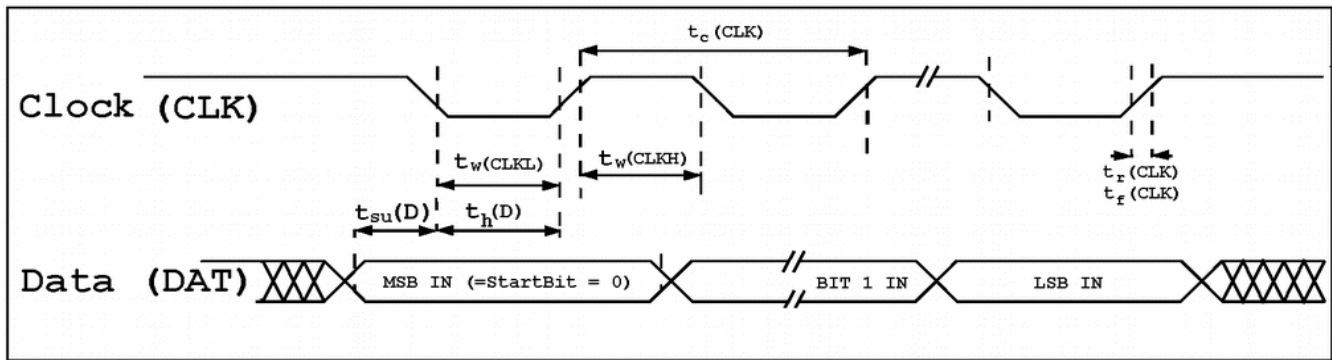


Serial Protocols

The SD3624 keyswitches are connected to the controlling central processing unit (host system) by a 2-wire SPI connection using a conventional synchronous protocol. A permanently applied clock is not necessary.

Special timing considerations are required for Legacy Mode™ support. See description on page 17.

Timing Diagram



Symbol	Parameter	Min	Max	Unit
$t_c(\text{CLK})$	SPI Clock frequency	0.128	4	MHz
$t_w(\text{CLKH})$	Clock high time	45		ns
$t_w(\text{CLKL})$	Clock low time	45		ns
$t_{su}(\text{D})$	Data input setup time	10		ns
$t_h(\text{D})$	Data input hold time	10		ns
$t_r(\text{CLK})$	Clock rise time	5		ns
$t_f(\text{CLK})$	Clock fall time	5		ns

COMMAND SET

Synchronous Protocol

The command structure is quite simple as you can see in the following table. Due to the possibility of a permanently applied clock each transmitted data must have a leading “0”. To distinguish between command and data the sixth bit is reserved. There are three sets of commands:

- **Write Data to the LCD Display**
- **Set Backlight Color**
- **Extended Command Set**

The first two command sets imply the required data and do not expect a return value from the key. Some commands in the Extended Command set, however, request information to be returned by the key. In this case, the **MSC™** electronics will generate their own clock signal for the data transmission.

For details on this scenario, see the **FAQ Section** on our website www.e3-keys.com/faqs.html.

Legacy Mode™

Legacy Mode™ applies only to the use of SD3624 keyswitches in legacy systems originally designed for Screenkeys LC24.2 Trend switches.

This mode is supported in order to ease the transition to the new possibilities of the SD3624 switches in existing hardware environments. The intelligent electronics of the SD3624 switches detect the existing protocol and automatically convert the data into the data stream that is required for SD switches. In order to make a system compatible with the **Legacy Mode™** it may be necessary to adjust the clock frequency and/or to increase the transfer bit count per data word.

If you have questions regarding the implementation of **Legacy Mode™**, please review the corresponding [Legacy Mode™ document](#) on our website at www.e3-keys.com [here](#) and the FAQ section [here](#).

Standard Mode vs. Positive Mode

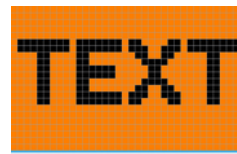
The SD3624 uses a transmissive inverse DFSTN LCD.

As a factory default, SD3624 switches display in Positive Mode with black pixels on color background for backwards compatibility with SA3624 switches, which utilized a positive LCD display.

In Standard Mode, the inverse LCD shows color pixels on black background as shown in the illustrations below.



Standard Mode display



Positive Mode (default) display



You may switch between Standard and Positive Mode with the Mode command 0x47 (see pages 19-21).

Commands


Command Data	Command Name / Description	Comments
0x40	Set Display Address & Write Display Data	Writes to the display must be initiated by this command. Address pointer is auto-incremented by data transmission. The command expects min. 4 data words to follow: 0000000A ₈ 0000A ₇ A ₆ A ₅ A ₄ 0000A ₃ A ₂ A ₁ A ₀ 0000D ₃ D ₂ D ₁ D ₀ Multiple data bytes may follow without additional addressing in one sequence since the controller will perform auto-increment. Command can be terminated with 0x43 command Details are found in the Bit/Pixel Mapping Table on page 21.
0x41	Set Color	There is one data word to follow: 00R ₁ R ₀ G ₁ G ₀ B ₁ B ₀ The 2 bits for each color intensity have the following values: 00 = off 01 = low 10 = medium 11 = high
0x42	Set RGB Color	There are 3 data bytes to follow: 0D ₆ D ₅ D ₄ D ₃ D ₂ D ₁ D ₀ 0D ₆ D ₅ D ₄ D ₃ D ₂ D ₁ D ₀ 0D ₆ D ₅ D ₄ D ₃ D ₂ D ₁ D ₀ Note: The lower 10 values on each color brightness value should only be used for single color applications due to restrictions in the color calibration.
0x43	End Transmission	Ends data transmission to keys and awaits next command sequence. Transmitted commands are processed and displayed. This command should be placed at the end of a sequence. Note: The key will not respond to any command issued within 50µs after this command.
0x44	Read Keyswitch ID THIS COMMAND FORCES THE KEYSWITCH TO ANSWER ON THE CLOCK AND DATA LINE.	The answer is consisting of ASCII characters representing the Keyswitch ID and is terminated with CR (0x0D): SD3624 Note: Care should be taken when implementing this command since the clock signal is generated by the SD3624 switch!

Command Data	Command Name / Description	Comments
0x45	Read Serial Number THIS COMMAND FORCES THE KEYSWITCH TO ANSWER ON THE CLOCK AND DATA LINE.	The answer is consisting of 4 Bytes which give the serial Number in the following format and is terminated with CR (0x0D): SNYYWW##### Year (04-99) - Week (01-52) - Number (00000 .. 99999) Note: Care should be taken when implementing this command since the clock signal is generated by the SD3624 switch!
0x47 0x00	Extended command, NOOP	No Operation
0x47 0x01 0xXX 01000111 00000001 D ₇ D ₆ D ₅ D ₄ D ₃ D ₂ D ₁ D ₀	SetMode*	The display and/or backlight is enabled/disabled and or the display is inverted into Positive or Standard Mode while the bitmap data is maintained. D ₇ = 1 set Group / = 0 select Group D ₆ = 1 Display ON* / = 0 Display OFF D ₅ = 1 Backlite ON* / = 0 Backlite OFF D ₄ = 1 set Display to Positive Mode* / = 0 set Display to Standard Mode D _{3.0} = Group Number Note¹: D₇ = 1 not only specifies group, but executes command as well Note²: Please allow for 2µsec pause as this command has to be performed immediately * Group settings will be lost after Power OFF
0x47 0x7F 0xFF 288 x D ₇ D ₆ D ₅ D ₄ D ₃ D ₂ D ₁ D ₀ 01000111 01111111 11111111 288 x Pixel Bytes	Write Display Data	The display is completely rewritten. 288 bytes of pixel data must follow. First byte is written to Pixel Position 0. D₇D₆D₅D₄D₃D₂D₁D₀ Note¹: The amount of data bytes must exactly match 288. Note²: status of display on/off is unaffected.
0x48 0xXX 0xXX 0xXX 0xXX 0xXX 0xXX 0x00 0x00 0x00	Multi Segment Color™	Sets the RGB colors for Multi Segment Color in up to 3 segments (= 9 RGB color values) with color values of 0x00 to 0x7F for each color channel. 0xXX 0xXX 0xXX (RGB colors for segment 1) 0xXX 0xXX 0xXX (RGB colors for segment 2) 0x00 0x00 0x00 (RGB colors for segment 3*) * Multi Segment Color™ in SD3624 switches available only for segments 1 and 2. Segment 3 RGB color values will be ignored and should be set to 0x00 0x00 0x00.


Command Examples

Command Data	Comments
0x40 0x00 0x00 0x00	Set display address with 288 bytes of data (including 2 dummy bytes per row) following
0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x00 0x03 0x06 0x00 0x00 0x00 0x00 0x08 0x0F 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x09 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x0A 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x0C 0x00 0x06 0x03 0x06 0x00 0x00 0x00 0x00 0x02 0x06 0x03 0x06 0x00 0x00 0x00 0x03 0x02 0x06 0x01 0x04 0x00 0x00 0x08 0x04 0x02 0x06 0x0F 0x07 0x00 0x00 0x08 0x08 0x03 0x06 0x0E 0x03 0x00 0x00 0x00 0x01 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x00 0x01 0x06 0x03 0x03 0x00 0x00 0x00 0x09 0x02 0x06 0x03 0x07 0x00 0x00 0x08 0x04 0x02 0x06 0x09 0x05 0x00 0x00 0x08 0x04 0x01 0x06 0x0D 0x04 0x00 0x00 0x00 0x0F 0x00 0x06 0x07 0x06 0x00 0x00 0x00 0x00 0x01 0x06 0x06 0x06 0x00 0x00 0x00 0x0B 0x02 0x06 0x00 0x00 0x00 0x00 0x08 0x04 0x02 0x06 0x0F 0x07 0x00 0x00 0x08 0x04 0x01 0x06 0x0F 0x07 0x00 0x00 0x00 0x01 0x00 0x06 0x06 0x00 0x00 0x00 0x00 0x00 0x01 0x06 0x08 0x07 0x00 0x00 0x00 0x0F 0x02 0x06 0x08 0x07 0x00 0x00 0x08 0x00 0x02 0x06 0x06 0x00 0x00 0x00 0x08 0x00 0x03 0x06 0x0F 0x07 0x00 0x00 0x08 0x0F 0x00 0x06 0x0F 0x07 0x00 0x00 0x00 0x00 0x01 0x06 0x00 0x00 0x00 0x00 0x00 0x0D 0x02 0x06 0x00 0x00 0x00 0x00 0x08 0x04 0x02 0x06 0x00 0x00 0x00 0x00 0x08 0x04 0x01 0x06 0x00 0x00 0x00 0x00 0x00 0x03 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x06 0x00 0x00 0x00 0x00 0x00 0x00	Write data to display for SD3624_MSC bitmap  

Command Data	Comments
0x41	Set color with 1 byte color command
0x38	Red : high intensity, Green medium intensity, Blue off 00 11 1000 = 0x38



Command Data	Comments
0x42	Set color with 3 byte color command
0x70 0x30 0x00	Set color with values 70 Red , 30 Green , 00 Blue .



Command Data	Comments
0x47 0x01	Sets key modes for display, backlite and group and terminate command (0x43)
0x47 0x01 0xE1 0x43	Set Group, Display ON, Backlite ON, Standard Mode, Group 1 = 11100001
0x47 0x01 0xC2 0x43	Set Group, Display OFF, Backlite ON, Standard Mode, Group 2 = 11000010
0x47 0x01 0x01 0x43	Select Group, Display OFF, Backlite OFF, Standard Mode, Group 1 = 00000001

0x47 0x01 0xE2 0x43	Set Group, Display ON, Backlite ON, Standard Mode, Group 2 =	11100010
0x47 0x01 0x72 0x43	Select Group, Display ON, Backlite ON, Positive Mode, Group 2 =	01110010
0x47 0x01 0x62 0x43	Select Group, Display ON, Backlite ON, Standard Mode, Group 2 =	01100010

Command Data	Comments
0x48 0x20 0x00 0x20 0x40 0x40 0x00 0x00 0x00 0x00	Set Multi Segment Color™ colors for upper and lower segments Segment 1: sets color to dark purple Segment 2: sets color to pale yellow Segment 3: not supported in SD3624 switches; should be set to 0x00 0x00 0x00



BIT / PIXEL MAPPING

Display Memory – Internal RAM Structure

The static display RAM holds the data for the LCD display. This data is displayed automatically and is continuously refreshed without further interference from the host controller.













































Bit/Pixel Mapping Table

	Column 35	Column 34	Column 33	...	Column 3	Column 2	Column 1	Column 0
Address	11EH	116H	10EH	...	1EH	16H	0EH	06H
Row 16	D ₀	D ₀	D ₀	...	D ₀	D ₀	D ₀	D ₀
Row 17	D ₁	D ₁	D ₁	...	D ₁	D ₁	D ₁	D ₁
Row 18	D ₂	D ₂	D ₂	...	D ₂	D ₂	D ₂	D ₂
Row 19	D ₃	D ₃	D ₃	...	D ₃	D ₃	D ₃	D ₃
Address	11FH	117H	10FH	...	1FH	17H	0FH	07H
Row 20	D ₀	D ₀	D ₀	...	D ₀	D ₀	D ₀	D ₀
Row 21	D ₁	D ₁	D ₁	...	D ₁	D ₁	D ₁	D ₁
Row 22	D ₂	D ₂	D ₂	...	D ₂	D ₂	D ₂	D ₂
Row 23	D ₃	D ₃	D ₃	...	D ₃	D ₃	D ₃	D ₃
Address	118H	110H	108H	...	18H	10H	08H	00H
Row 0	D ₀	D ₀	D ₀	...	D ₀	D ₀	D ₀	D ₀
Row 1	D ₁	D ₁	D ₁	...	D ₁	D ₁	D ₁	D ₁
Row 2	D ₂	D ₂	D ₂	...	D ₂	D ₂	D ₂	D ₂
Row 3	D ₃	D ₃	D ₃	...	D ₃	D ₃	D ₃	D ₃
Address	119H	111H	109H	...	19H	11H	09H	01H
Row 4	D ₀	D ₀	D ₀	...	D ₀	D ₀	D ₀	D ₀
Row 5	D ₁	D ₁	D ₁	...	D ₁	D ₁	D ₁	D ₁
Row 6	D ₂	D ₂	D ₂	...	D ₂	D ₂	D ₂	D ₂
Row 7	D ₃	D ₃	D ₃	...	D ₃	D ₃	D ₃	D ₃
Address	11AH	112H	10AH	...	1AH	12H	0AH	02H
Row 8	D ₀	D ₀	D ₀	...	D ₀	D ₀	D ₀	D ₀
Row 9	D ₁	D ₁	D ₁	...	D ₁	D ₁	D ₁	D ₁
Row 10	D ₂	D ₂	D ₂	...	D ₂	D ₂	D ₂	D ₂
Row 11	D ₃	D ₃	D ₃	...	D ₃	D ₃	D ₃	D ₃
Address	11BH	113H	10BH	...	1BH	13H	0BH	03H
Row 12	D ₀	D ₀	D ₀	...	D ₀	D ₀	D ₀	D ₀
Row 13	D ₁	D ₁	D ₁	...	D ₁	D ₁	D ₁	D ₁
Row 14	D ₂	D ₂	D ₂	...	D ₂	D ₂	D ₂	D ₂
Row 15	D ₃	D ₃	D ₃	...	D ₃	D ₃	D ₃	D ₃

COLOR TABLE

The color command 01000001 (0x41) initiates the color settings of the SA keyswitches with two bits for the color intensity setting of each color.

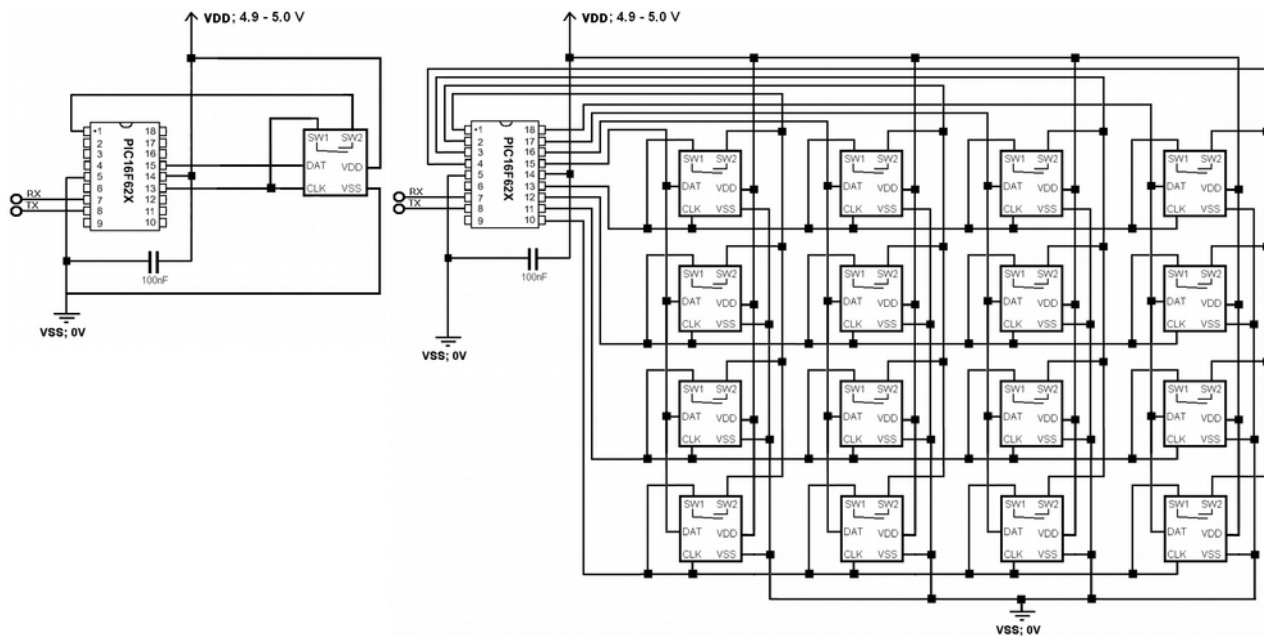
The color approximations for SD3624 keys are shown in following color table. This table is intended for illustration purposes only. The actual display colors on the LCD display with LED backlighting may be different.

	000000		010000		100000		110000
	000001		010001		100001		110001
	000010		010010		100010		110010
	000011		010011		100011		110011
	000100		010100		100100		110100
	000101		010101		100101		110101
	000110		010110		100110		110110
	000111		010111		100111		110111
	001000		011000		101000		111000
	001001		011001		101001		111001
	001010		011010		101010		111010
	001011		011011		101011		111011
	001100		011100		101100		111100
	001101		011101		101101		111101
	001110		011110		101110		111110
	001111		011111		101111		111111

CONTROLLING SD3624 SWITCH ARRAYS

Below are sample schematics for controlling one or sixteen SXnnnn keyswitches in an array using a PIC16F62X controller to illustrate the simplicity of the control circuitry.

For additional technical support with your own design implementation, please contact your local [E³] distributor or [E³] at techsupport@e3-keys.com.



In the above examples the clock and data signals are generated on the corresponding I/O pins of the PIC controller.

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The SD3624 are rated UL94-HB

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ORDER INFORMATION

Part Number	Description
SD3624-B	SD pushbutton keyswitch with 36 x 24 pixel display inverse DFSTN LCD in Positive Mode Black housing (RAL 9005)

CHANGE HISTORY

Version	Date	Comments
0.1	12/15/23	SD3624 initial pre-production sample release document
0.2	02/28/24	Mode command 0x47 updated for Standard and Positive Mode
0.3	10/09/24	New corporate address
1.0	10/29/24	Release Document

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