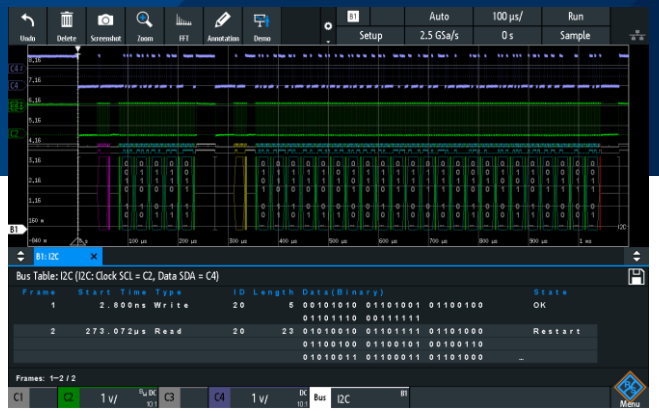
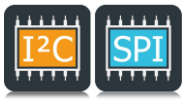
ROHDE&SCHWARZ
Make ideas real

R&S®RTx-K1, -K2, -K3, -K5, -K6, -K7 [1)]
SERIAL PROTOCOL TRIGGERING AND DECODING



Options		Description
	-K1	**I²C/SPI serial triggering and decoding** Triggering and decoding of I²C and two-wire, three-wire and four-wire SPI buses
	-K2	**UART/RS-232/RS-422/RS-485 serial triggering and decoding** Triggering and decoding of UART based protocols and RS-232, RS-422 and RS-485 buses
	-K3	**CAN/LIN serial triggering and decoding** Triggering and decoding of CAN and LIN interfaces
	-K5	**I²S/LJ/RJ/TDM triggering and decoding** Triggering and decoding of I²S buses
	-K6	**MIL-STD-1553 serial triggering and decoding** Triggering and decoding of MIL-STD-1553 buses
	-K7	**ARINC 429 serial triggering and decoding** Triggering and decoding of ARINC 429 buses

Customize your oscilloscope with the serial protocol triggering and decoding options

Protocols such as I²C, SPI and CAN/LIN frequently transfer control messages between integrated circuits. The R&S®RTB2000, RTM3000 and RTA4000 offer versatile options for protocol-specific triggering and decoding of serial interfaces.

Hardware based implementation

Smooth operation and a high update rate are ensured, even for long acquisitions. This is advantageous when capturing multiple packetized serial bus signals, for example.

Decoding of up to four serial buses

Trigger and decode on four different interfaces at the same time from analog or digital channel signals.

Trigger on start, stop, address, data and various error conditions

Enables the selective acquisition and analysis of relevant events and data.

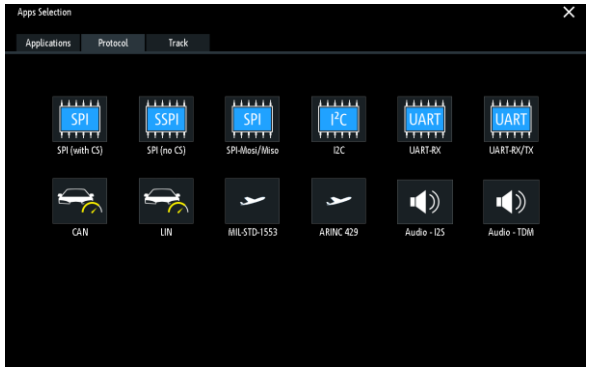
Telegram display as color-coded bus signals and decode table

For detailed analysis, results can be viewed as color-coded telegrams and in a table. You can also export the table.

[1)] For R&S®RTB2000, R&S®RTM3000 and R&S®RTA4000 oscilloscopes

▷ For more information, visit www.rohde-schwarz.com/oscilloscopes-software_231588

Fast bus setup



Any protocol can be configured in a few steps from the app cockpit. Once the bus to be decoded and the connected channels have been selected and the levels have been set, decoding begins automatically.

Powerful trigger capabilities

The protocol-specific trigger lets you reliably isolate protocol events and errors. The high acquisition rates of the R&S®RTB2000, R&S®RTM3000 and R&S®RTA4000 oscilloscopes make them ideal for finding errors quickly and decoding protocol-specific results.

Segmented memory for long time captures

Segmented memory is ideal for serial protocols. It allows you to capture only relevant packets/frames and ignore the long idle time between packets.

R&S®RTB2000: 160 Msample segmented memory
R&S®RTM3000: 400 Msample segmented memory
R&S®RTA4000: 1 Gsample segmented memory

Color-coded telegram display and bus table

You can analyze the decoded bus frames by overlaying the signal with color-coded data. Address and data content can be displayed in hex, bin or ASCII format. Turning on a bus table makes it easier to see the contents of multiple packets. This can be very useful when zoomed out on the oscilloscope. You can also export the table.

Model configuration information

Base model	Order No.
R&S®RTB2002 oscilloscope, 70 MHz, 2 channels	1333.1005.02
R&S®RTB2004 oscilloscope, 70 MHz, 4 channels	1333.1005.04
R&S®RTM3002 oscilloscope, 100 MHz, 2 channels	1335.8794.02
R&S®RTM3004 oscilloscope, 100 MHz, 4 channels	1335.8794.04
R&S®RTA4004 oscilloscope, 200 MHz, 4 channels	1335.7700.04
Application bundle	**Order No.**
R&S®RTB-PK1 consists of the following options: -K1, -K2, -K3, -K15, -K36, -B6	1333.1092.02
R&S®RTM-PK1 consists of the following options: -K1, -K2, -K3, -K5, -K6, -K7, -K15, -K18, -K31, -K36, -B6	1335.8942.02
R&S®RTM-PK1US consists of the following options: -K1, -K2, -K3, -K5, -K6, -K7, -K15, -K31, -K36, -B6	1335.9190.02
R&S®RTA-PK1 consists of the following options: -K1, -K2, -K3, -K5, -K6, -K7, -K18, -K31, -K36, -B6	1335.7775.02
R&S®RTA-PK1US consists of the following options: -K1, -K2, -K3, -K5, -K6, -K7, -K31, -K36, -B6	1335.7998.02

Software option	R&S®RTB	R&S®RTM	R&S®RTA
K1 I²C/SPI T&D	1333.1011.02	1335.8807.02	1335.7681.02
K2 UART/RS-232/RS-422/RS-485 T&D	1333.1028.02	1335.8813.02	1335.7698.02
K3 CAN/LIN T&D	1333.1034.02	1335.8820.02	1335.7717.02
K5 Audio T&D	-	1335.8842.02	1335.7723.02
K6 MIL-STD-1553 T&D	-	1335.8859.02	1335.7730.02
K7 ARINC 429 T&D	-	1335.8865.02	1335.7746.02

All options can be retrofitted

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