



# R&S®ZN-Z86X SWITCH MATRIX

Essential for testing complex multiport devices or multiple devices under test

The perfect choice for



R&S®ZN-Z86X with R&S®ZN-Z86X B44, 24-port version

Electronic, RF and microwave components testing	Aerospace and defense testing	<b>Key specifications</b>	
		Frequency range	100 MHz to 26.5 GHz
Automotive testing	Production	RF connector type	2.92 mm, female
		Number of test ports	12 or 24
		Switching configuration	Full crossbar measurement with Rohde & Schwarz VNAs
		Supported Rohde & Schwarz VNAs	R&S®ZNA, R&S®ZNB, R&S®ZNBT
		Remote control	LAN, USB, direct control, BNC trigger

## Versatile and adaptable

- ▶ 100 MHz to 26.5 GHz
- ▶ Two versions: base unit with 12 ports or 24 ports
- ▶ Usable on a 2-port or 4-port VNA; no hardware or software upgrade necessary
- ▶ Independent SP4T and DP6T solid-state relays usage
- ▶ Fully integrated with multiport solid-state relays
- ▶ Hardware trigger as standard
- ▶ Convenient R&S®ZN-Z8x Toolbox software as standard
- ▶ Wide range of optional cable sets and accessories for use with R&S®ZNx family of vector network analyzers

Your benefit	Features
Flexible and convenient adaptation to your measurement needs	<ul style="list-style-type: none"> <li>▶ Usable on a 2-port or 4-port VNA simply by repositioning the RF links on the front panel</li> <li>▶ Enables independent use of the SP4T and DP6T relays; reduces insertion loss and allows additional components to be added to the measurement setup, e.g. attenuators and amplifiers</li> </ul>
Simple to operate	<ul style="list-style-type: none"> <li>▶ Unified operation between vector network analyzer (VNA) and switch matrix</li> <li>▶ Automatic detection and test port assignment</li> <li>▶ User-friendly selection of speed or precision for measurement optimization with the VNA; VNA firmware automatically selects best possible route based on user's selection</li> <li>▶ Measurement results displayed immediately and can be read at a glance</li> <li>▶ Remote control via LAN, USB or dedicated device control interface</li> </ul>
Convenient and intuitive R&S®ZN-Z8x Toolbox software for getting started, device monitoring and troubleshooting	<ul style="list-style-type: none"> <li>▶ Convenient all-in-one switch matrix management</li> <li>▶ Easy path switching via mouse click or via trigger</li> <li>▶ Definition of trigger sequences</li> <li>▶ Command and control interface using SCPI; includes switch matrix feedback logs</li> <li>▶ Usable on any switch matrices within the same network: microcontroller and FPGA updates (USB only), remote control and monitoring of switch matrix status</li> <li>▶ Operated on a desktop computer, laptop or tablet running a Windows operating system via LAN</li> </ul>
Enables advanced automation	<ul style="list-style-type: none"> <li>▶ Minimizes delays, synchronizes devices in real time and increases measurement throughput by means of automation</li> <li>▶ Up to 2048 trigger sequences can be defined and supported</li> <li>▶ Trigger types include mouse control via the R&amp;S®ZN-Z8x Toolbox software, SCPI commands and an external trigger signal (TTL) via BNC connector</li> </ul>

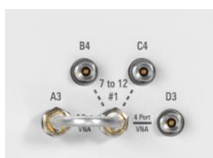


For more information, scan the QR code or [click here](#)

## R&S®ZN-Z8x switch matrix overview and supported Rohde & Schwarz vector network analyzers

	10 MHz	100 MHz	8.5 GHz	20 GHz	26.5 GHz	Port configuration options	Supported VNAs
R&S®ZN-Z84	[Grey bar]					6/12/18/24/48*	R&S®ZNA/ZNB/ZNBT/ZND
R&S®ZN-Z85	[Grey bar]					6/12	R&S®ZNA/ZNB/ZNBT
<b>R&amp;S®ZN-Z86</b>	[Blue bar]					<b>6/12/18/24/48*</b>	<b>R&amp;S®ZNA/ZNB/ZNBT</b>
R&S®ZN-Z86X	[Blue bar]					12/24	R&S®ZNA/ZNB/ZNBT

### Highly versatile, easy to adapt



Reposition the RF links/jumper cable on the switch matrix to use it on a 2-port or 4-port VNA; no hardware or software upgrade necessary

R&S®ZN-Z86X with R&S®ZN-Z86X B24, 12-port version



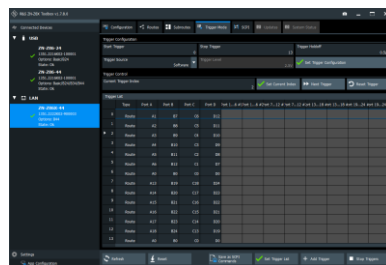
Enables independent use of the SP4T relays and DP6T relay modules; reduces insertion loss and allows additional components to be added to the measurement setup such as attenuators and amplifiers

### Hardware trigger as standard

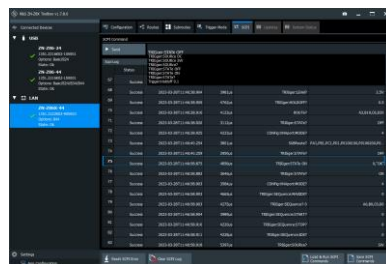


Precise and reproducible switching in line with trigger signal via BNC from external trigger source (TTL, positive slope)

### Handy and convenient R&S®ZN-Z8x Toolbox software



Trigger sequence of up to 2048 path entries can be predefined via LAN (SCPI commands) or R&S®ZN-Z8x Toolbox.



Display of SCPI logs; useful for troubleshooting and verification



R&S®ZNA vector network analyzer, R&S®ZN-Z86X base unit with R&S®ZNZ86X B44 with R&S®ZN-ZTXBE extension box and R&S®ZN-ZA26 cable set

Popular accessories		
Description	Item	Order No.
Base unit, 100 MHz to 26.5 GHz	R&S®ZN-Z86X	1351.2222.02
Extends 2 or 4 VNA ports to 12 test ports	R&S®ZNZ86X-B22	1351.2222.24
Extends 2 or 4 VNA ports to 24 test ports	R&S®ZNZ86X-B44	1351.2222.44

Popular accessories		
Description	Item	Order No.
19" rack adapter for R&S®ZN-Z86X	R&S®ZZA-KNP31	1177.8810.00
Base extension box, 3 HU for R&S®ZN-Z86X, benchtop operation	R&S®ZN-ZTXBE	1351.3906.03
Semi-rigid cable set: 2.92 mm (f) to 2.92 mm (m), for connecting the R&S®ZNA26/43 and R&S®ZN-Z86X, benchtop operation	R&S®ZN-ZA26	1328.8905.03
Semi-rigid cable set: 2.92 mm (f) to 2.92 mm (m), for connecting the R&S®ZNB26/43 and R&S®ZN-Z86X, benchtop operation	R&S®ZN-ZB26	1328.8911.03
Semi-rigid cable set: 2.92 mm (f) to 2.92 mm (m), for connecting the R&S®ZNBT26/40 and R&S®ZN-Z86X, benchtop operation	R&S®ZN-ZT26	1328.8928.03
Semi-rigid cable set 2.92 mm (f) to 2.92 mm (m), for connecting an 8-port R&S®ZNBT26/40 to a 4-port R&S®ZN-Z86X, benchtop operation	R&S®ZN-ZT26	1328.8928.04
Direct control cable	R&S®ZN-B121	1323.9290.00
Torque wrench	R&S®ZN-ZTW	1328.8534.35
8 mm wrench extension for close connectors	R&S®SMA-WRENCH	1528.1590.02



All-in-one convenient switch matrix management with the R&S®ZN-Z8x Toolbox software

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