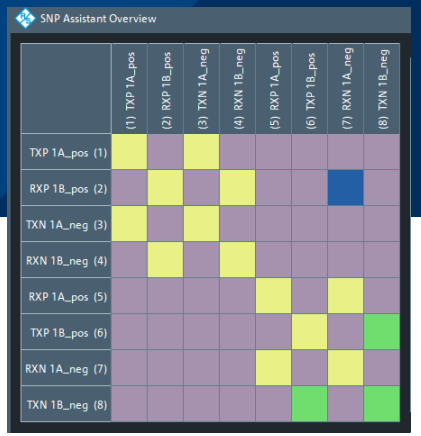
ROHDE&SCHWARZ
Make ideas real

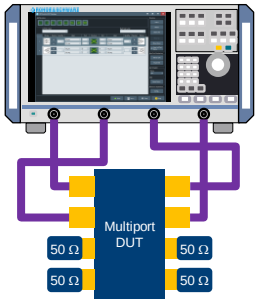
R&S®ZNx-K100: SNP ASSISTANT

For R&S®ZNA/ZNB/ZNBT/ZND vector network analyzers



SNP assistant software for vector network analyzer

The SNP assistant measurement wizard intelligently guides users through all required measurements with minimal and optimized re-connection steps. Measuring an M-port multiport DUT with an N-port VNA (where M is larger than N) is useful. A measurement result with a higher order touchstone file can be conveniently generated afterwards.



Ideal for

- High-speed interconnect
- RF component measurement
- Multiport antenna measurement

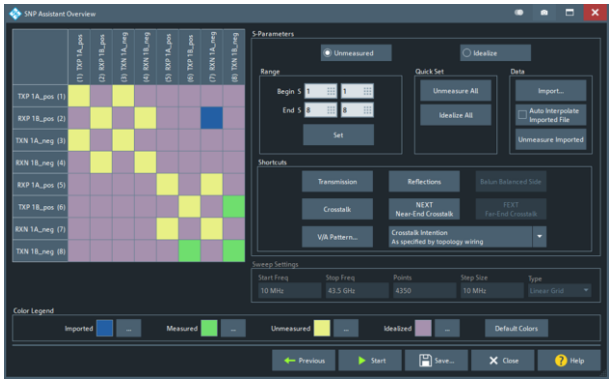
Key specifications	Descriptions
Supported hardware	► VNA: R&S®ZNA, R&S®ZNB, R&S®ZNBT, R&S®ZND ► Switch matrix: R&S®ZN-Z84, R&S®ZN-Z85, R&S®ZN-Z86(X)
DUT topology	► Pre-defined template such as QSFP/SFP/USB… ► VNA port selection ► Reference impedance definition
DUT structure	► Single-ended input/output ► Balanced input/output

Your benefit	Features
Flexible DUT topology	► **User-defined topology** Self-defined DUT topology with intuitive structure icon ► **Pre-defined topology template** Select the DUT standard by technology and form factor
Easy defining test items with less effort	► **Color coding** Use color coding for each S-parameter cell to mark the data status as idealized, measured, unmeasured and imported. ► **Test item shortcut** Decide which test items are to be measured via the shortcut buttons for reflection, transmission and crosstalk ► **Victim and aggressor pattern** Identify near-end or far-end crosstalk from the perspective of victims and aggressors ► **Import existing data** Define test items by importing existing touchstone files ► **Least measurement steps** Save test time with the step-by-step wizard guide for the least re-connections
Understandable measurement result	► **File header includes DUT definition** DUT topology written in the touchstone header that benefits the user to immediately understand the relationship between the port function and port number ► **High order touchstone file** Export n^{th} order touchstone file with n > base unit port count

Flexible topology definition

User-defined topology by adding structure icons or pre-defined topologies with technology template dropdown box

Test items shortcuts and S-parameter visualization



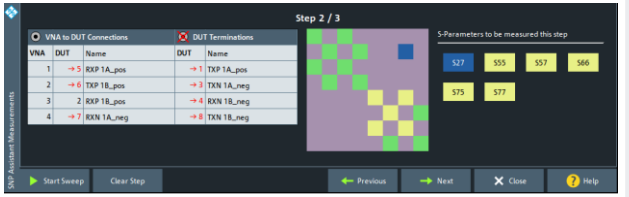
Test items can be edited via the shortcut buttons to setup reflection, transmission, near-end or far-end crosstalk or crosstalk by victim/aggressor patterns

Ordering information

Description	Order No.
R&S®ZNA-K100 SNP assistant	1338.9327.02
R&S®ZNB-K100 SNP assistant	1338.9333.02
R&S®ZNBT-K100 SNP assistant	1338.9340.02
R&S®ZND-K100 SNP assistant [1]*	1338.9356.02

[1] R&S®ZND-K5 or R&S®ZND-K6 full test set bi-directional option required

Step-by-step wizard guide



The wizard guide leads users through a measurement with minimized connection steps and optimized connections

Touchstone file header information

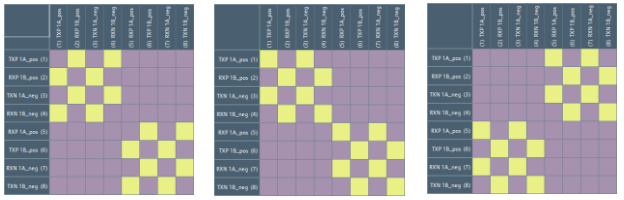
```
! ::MULTI-CHANNEL-INFORMATION::
!
! [SIDE1=] [SIDE2=]
! [#] [TXP] [1 (L) +] [1] ->>- [2] [1 (R) +] [RXP] [*]
! [*] [TXN] [1 (L) -] [3] ->>- [4] [1 (R) -] [RXN] [*]
! [*] [TXP] [2 (L) +] [5] ->>- [6] [2 (R) +] [RXP] [*]
! [*] [TXN] [2 (L) -] [7] ->>- [8] [2 (R) -] [RXN] [*]
! [*] [RXP] [1 (L) +] [9] ->>- [10] [1 (R) +] [TXP] [*]
! [*] [RXN] [1 (L) -] [11] ->>- [12] [1 (R) -] [TXN] [*]
! [*] [RXP] [2 (L) +] [13] ->>- [14] [2 (R) +] [TXP] [*]
! [*] [RXN] [2 (L) -] [15] ->>- [16] [2 (R) -] [TXN] [*]
! [*] [] [D (L) +] [17] ->>- [18] [D (R) +] [] [*]
! [*] [] [D (L) -] [19] ->>- [20] [D (R) -] [] [*]
```

DUT topology information is clearly shown on the touchstone file header

Easy defining test items with V/A patterns

SFP+ topology definition

Test items can be determined by V/A buttons



Example of SFP+ cable testing: efficiently determine complex test items according to topology wiring and victim/aggressor pattern definition

Feature highlights

- ► Support user-defined or pre-defined DUT topologies
- ► Display S-parameter visualization
- ► Allow test item shortcuts
- ► Minimize measurement steps
- ► Feasible for high order touchstone file exports

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