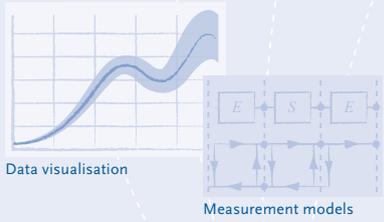
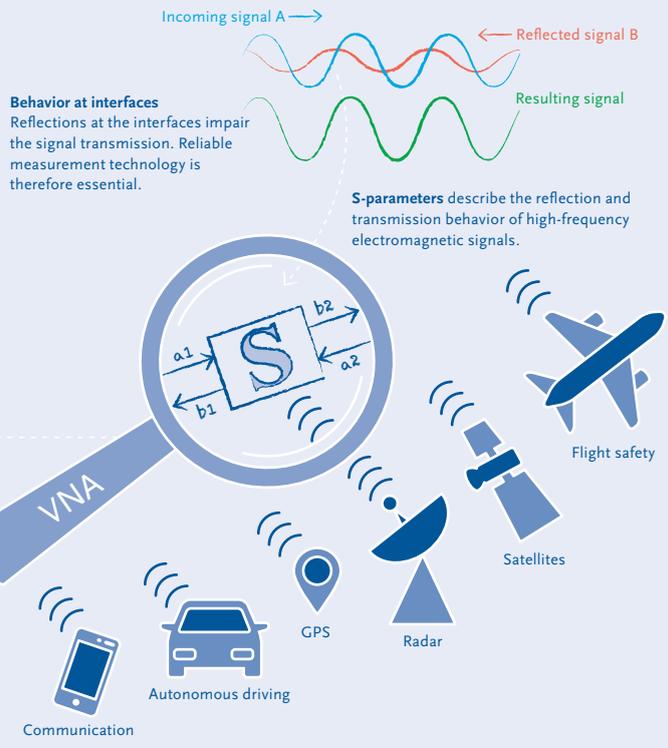


Metrology-Software VNA Tools

S-PARAMETER MEASUREMENT WITH VNA

Vector Network Analyzers (VNAs) are used in the classical areas of high frequency measurement (e.g. radar technology) as well as in the new digital technologies (5G, Internet of Things, ...). The devices are becoming more and more all-rounders and cover an increasing range of measurement applications in the high-frequency range.



Measurement uncertainty budget

```

    clr, AddressReference(System.Windows.Forms.Application.StartupPath)
    clr, AddressReference(Metas.Vna.Tools)
    From System.Threading.Tasks: Three
    From System.Windows.Forms: Report
    From Metas.Vna.Tools: Import: Script

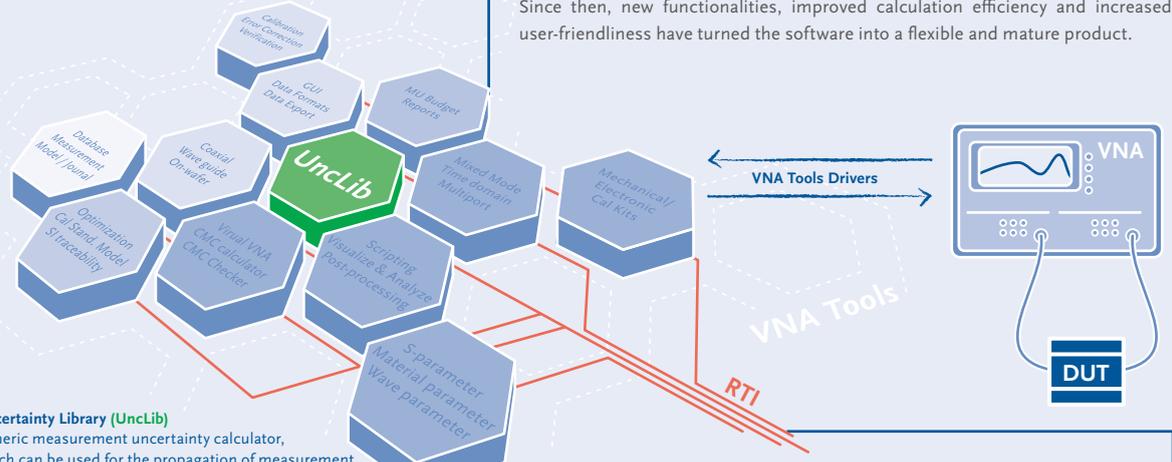
    s = Script (RootPath)
    s.compute("SOLT_01.calcfg")
    s.compute("SOLT_01.covcfg")
    
```

Automation

VNA TOOLS DETERMINES MEASUREMENT UNCERTAINTIES OF S-PARAMETERS

The knowledge of the measurement uncertainty is crucial in order to be able to make statements about the conformity of high-frequency components with regard to given specifications. Already ten years ago, METAS therefore developed the software VNA Tools.

Since then, new functionalities, improved calculation efficiency and increased user-friendliness have turned the software into a flexible and mature product.



Uncertainty Library (UnLib)
Generic measurement uncertainty calculator, which can be used for the propagation of measurement uncertainties. It supports multivariate methods under full consideration of correlations and is therefore suitable for demanding problems of measurement uncertainty evaluation.

RTI – REAL TIME INTERFACE

In addition to the free software version for a constantly growing number of users, METAS has recently extended VNA Tools with a new licensable tool: The Real Time Interface (RTI) is a defined, documented and stable software interface, which allows simplified access to the functionality of VNA Tools. This considerably simplifies the implementation of VNA Tools into a pre-existing software environment.