

Version 20.1.5

- Added SCPI:TRIGger.SEQuence.WAIT(STATus) COM command
- Added support to ACM2506
- Added COM/SCPI commands for all port extension features

Version 19.4.4

- Added SYST:TERM SCPI command to terminate the analyzer software
- Limit line in Polar format now includes magnitude

Version 19.4.3

- Fixed a bug related to 'trace hold' function

Version 19.4.2

- Fixed a bug with saving power calibration in a state file
- Autosave state is now disabled by default
- Fixed a bug related to access violation error when exiting through COM automation

Version 19.4.1

- Fixed the synthesis error at some frequencies
- Fixed a bug saving system impedance data in a state file
- Fixed a bug with SCPI command DISP:WIND:TRAC:Y:PDIV
- Fixed a bug related to time domain gating when selecting one way reflection type

Version 19.3.0

- TIME:REFlection:TYPE added in manual
- Marker values now round properly
- Error correction information (for example F1) in the trace status field is hidden when the correction is turned off

- Fixed a bug related to absolute power measurements

Version 19.1.1

- Fixed TR5048 / 7530 startup error

Version 19.1.0

- Added automation commands for confidence check and ACM orientation function
- Removed confirmation message when closing the application

Version 18.4.0

- Optimized data averaging algorithm

Version 18.3.3

- Fixed an issue related to cycle time when having multiple channels
- Updated the COM and SCPI programming manuals

Version 18.3.0

- Fixed an error with LabVIEW AutoCal function

Version 18.2.6

- Disabled the “new analyzer model detected” dialogue boxes when the program is run in invisible mode

Version 18.2.3

- Fixed a bug related to automation

Version 18.2.1

- Fixed a bug where the error dialogues pop up whenever the application was turned on/off constantly.

Version 18.2.0

- Added the SCPI command to load the touchstone file MMEM:LOAD:SNP

Version 18.1.5

- Fixed a bug with COM automation

Version 18.1.2

- Additional calibration kits are added to the cal kit table: S2611, N1801, S911T and N1.2

Version 18.1.1

- Fixed a bug related to the TCP socket interface

Version 18.1.0

- Improved the auto-detect functionality
- Added the possibility of connecting a device with the specified serial number
- Added the following SCPI commands:
 - DISPlay: UPDate [: IMMEDIATE]
 - DISPlay: ENABLE
 - TRIGger [: SEQuence]: WAIT {HOLD | MEASURE | WAIT}
- Added the ability to turn on/off cycle time
- Added the ability to turn on/off the display update

Version 17.4.4

- Fixed a bug related to the de-embedding function

Version 17.4.3

- Fixed a bug which caused an error when saving polar graph into a *.csv file

Version 17.4.2

- Added support for ACM2509 (version 2)

Version 17.4.1

- COM / SCPI automation commands have been added to control the vector voltmeter mode
- Integrated the data from the S1P / S2P files to the calibration kit file

Version 17.4.0

- Improved the functionality of vector voltmeter mode

Version 17.3.4

- Added vector voltmeter mode function
- Fixed a bug related to ACM calibration error when using segmented sweeps

Version 17.3.3

- Improved data resolution of memory trace

Version 17.3.2

- Isolation calibration step has been added to one path 2-port calibration

Version 17.3.0

- Fixed a conflict between the old and the new driver versions

Version 17.2.5

- Driver and installer are digitally signed using an enhanced certificate. Enables driver installation on all Windows versions including fresh (non-upgraded) installations of Windows 10, version 1607 with Secure Boot ON

- Unlocked IFBW range up to 1 Hz

Version 17.2.2

- Fixed a bug related to "SCPI.CALCulate(Ch).SElected.MARKer(Mk).X = Value" behavior. Now COM and SCPI operations read and set a delta value if the reference marker is enabled. Also modified reading of Y values
- Fixed a bug related to ACM Calibration and Confidence Check feature.

Version 17.2.0

- Added COM commands to read and write data of calibration standards for performance testing
- Fixed a bug related to malfunctioning of the embedded print function

Version 17.1.5

- Added vertical functionality to the limit line feature

Version 17.1.4

- Added COM and SCPI commands for deleting the memory trace in a channel
- Fixed a bug related to turning off the signal generator on TR5048 and TR7530
- Added COM and SCPI commands for recording calibration coefficients

Version 17.1.3

- Fixed a bug related to the auto port extension algorithm

Version 17.1.2

- Fixed a bug associated with launching a new window scan when using the channel placement function
- Optimized drawing of graphs when using a large number of points
- Added SCPI and COM commands for data functions
- Fixed a bug in the operation of the TCP server when using multiple clients

Version 17.1.1

- Fixed a bug related to traces loaded from a state file being overwritten by inadvertent sweeping immediately after loading

Version 17.1.0

- Added calibration kit S911
- Increased size of calibration kit list to 50
- Added calibration kit descriptions

Version 16.4.2

- Fixed a bug related to the capitalization of Touchstone files
- Fixed a bug causing a crash when certain settings were input to port extension
- Fixed a bug that caused Demo mode to hang when using segmented sweep

Version 16.3.5

Fixed a bug causing a crash when using automatic port extension

Fixed a bug related to SCPI commands including SENS:CORR:EXT:PORT:xxx

Improved the Phase Offset feature so it is no longer limited to a range of +/- 360 degrees

Improved auto-detection algorithms for connected devices

Added automatic port extension to the TR family of devices

Fixed a bug related to limit line behavior in the log sweep mode

Version 16.3.1

Fixed a bug related to programmatically defining a segment table when the first segment has a single point

Version 16.3.0

Added default to last path for each save and load file according to type, including across sessions

Changed output power adjustment to use increments of 0.1 dB

Added an option to fix the grid. When enabled, the plot is always divided into 10 vertical grid lines

Added files regserver.bat and unregserver.bat to installer package, for easier registration of the COM server

Improved calibration status and progress indications when used with an ACM module

Fixed the commands SCPI.CALCulate.SElected.MARKer.Y and CALCulate # [SElected] MARKer # Y; data is now returned correctly

Fixed a bug related to recall of State files of type All with time domain enabled

Markers now persist across switches between frequency and time domain

During calibration, measurement results are now displayed in the measurement window

Added support for COM DCOM and SCPI commands for charting a memory trace and data trace

Version 16.2.1

Added a control for displaying data and/or memory traces

Added markers capability to the memory trace

Fixed a bug related to simultaneous use of Gating and Z-transform

Version 16.2.0

Added automatic main window and font size adjustments according to screen resolution

Disabled access to plug-ins menu when COM server is unregistered

Added the software version number to the header of the main window

Version 16.1.7

Improved buffering of SCPI commands for TCP Socket

Fixed a bug in the SCPI command for calibration of THRU

Added independent control of marker color

Version 16.1.4

Fixed a bug related to use of socket interface in binary data format (REAL, REAL32)

Added power calibration support for the Keysight U8481A power meter

Added support for recall of *.ckd files created with S2VNA and S4VNA

Added a COM command for control of standby mode SCPI.SYStem.STANdby

Version 16.1.3

Fixed a bug related to recalling Channels A, B, C, and D

Version 16.1.2

Fixed a minor bug related to font size on certain buttons in the GUI

Version 16.1.0

- **IMPORTANT:** All instruments in the TR Family (non-reversing 2-Port VNAs) now share a common installer and software; device type can be dynamically detected or manually set on the System->Misc Setup menu. Version 16.1.2 supports the Planar TR1300/1, TR5048, and TR7530 devices
- **IMPORTANT:** This software release includes significant changes to of demo/simulator mode: During installation, select whether the software should run in a demo/simulator mode or not. This setting can be changed later on the System->Misc Setup menu
- **IMPORTANT:** The version number now reflects the year of release, major, and minor revisions; it is unified across software families
- Updated the LabView driver to match the new COM interface name
- Updated Programming Examples and Guides to reflect the new COM interface name
- Added independent marker color control to display properties
- Changed the application icon

Version 15.4.0

- Unified the software installer across all non-reversing 2-port VNAs (TR family of instruments)
- Changed the COM interface to the more universal name: ITRVNAPtr

- Added a new more universal name for the COM server: TRVNA.Application

Version 0.8.15

Added SCPI interface for remote control via IP/TCP socket

Added SCPI programming guide and sample program in Visual C ++

Added error messages related to failed loading of an S2P file

Added a graphical indication of gating time range when time domain mode is enabled

Added the ability to run custom extensions (plugins)

Added plugin for simulation of matching networks defined by circuit elements

Added ability to erase user characterizations from the ACM

Added calibration kit definitions for N911 / 912

Fixed a bug related to ACM information requests via the COM interface

Optimized memory usage when working with a large number of points

Fixed a bug causing frequency offset at low frequencies, including at 300 kHz

Version 0.8.14

Added support for plugin programs

Fixed a bug in the COM server interface related to obtaining raw complex data

Added version information to the splash screen

Added support for keyboard input of metric prefix (p, n, u, m, k, M, G)

Enhanced management of external trigger (TR5048 and TR7530)

Added control of overload protection (TR5048 and TR7530)

Fixed display of Smith Chart scale

Reworked programming examples and guides

Version 0.8.13

Fixed the frequency offset mode algorithm. Now two measurements are used: vector S11 and scalar S21). User calibration is disabled and factory receiver calibration is used



Software Release Notes

TR Family

Non-reversing 2-port VNAs of Planar and TR Series

Planar TR1300/

TR5048/TR7530

Added support for trace math when frequency offset mode is enabled

Markers reflect the true receiver port measurement frequency when frequency offset mode is enabled

Added a trace pointer to Smith Chart and Polar display formats

Added support for SCPI commands via VXI-11 remote management protocol (software is available on request)

Version 0.8.11

Fixed a bug in the COM server associated with marker numbering when marker statistics are calculated over a specified frequency range

Version 0.8.10

In absolute measurements, phase is now normalized to the reference channel

The software has a single COM-server (type library) for all instruments of the TR series

LabView driver released (CMT TR Series VNA)

Version 0.8.9

Fixed a bug causing trace statistics function to not work in the absence of markers

Fixed a typo the command group SCPI.SENSE.SWEp.REVerse

Eliminated fading demo mode when changing the parameters of the sweep

Fixed a bug related to stimulus information displayed inside softkeys

Version 0.8.8

Fixed a bug related to power unit labeling

Version 0.8.7

Added user power calibration

Fixed a bug related to loading of some state files

Fixed a bug in math traces related to Z transform



Software Release Notes

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Non-reversing 2-port VNAs of Planar and TR Series

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TR5048/TR7530

Version 0.8.6

Added control trigger (trigger on the stroke of the trigger to the point)

Version 0.8.5

Changed reverse frequency sweep to be a channel-wise setting

Added warning message when the ACM is used outside its characterized frequency range

Fixed COM/DCOM bugs related to calibration of channel 2+, Thru, and selection of port for extension

Improved display of time and frequency scales along the X-axis

Added new commands for automation as documented in the programming manual

Version 0.8.4

Added reverse frequency sweep feature

Added feature to turn off the frequency axis and marker times/frequencies

Added Cable Selection, Velocity Factor, and Cable Loss as new time domain features

Added Reflection Type setting for time domain measurements (one way or round trip)

Fixed spurs introduced with maximum number of points increase in version Version 0.8.2

Version 0.8.3

Fixed a bug related to the sign of marker bandwidth search function results when accessed through COM/DCOM

Fixed COM/DCOM command for IF bandwidth to disallow prohibited values

Version 0.8.2

Improved handling of USB connection status following PC hibernate/sleep and wake cycle

Increased maximum number of measurement points to 200,001 for TR5048 and TR7530



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TR5048/TR7530

Version 0.8.1

Improved control of trace allocation and maximization

Changed marker placement to be proportional to graph size

Version 0.8.0

Fixed bug in color property commands for saving "screenshots" through COM/DCOM

Added saving and loading of calibration kits

Fixed bug related to timing of single measurements made through COM/DCOM; in some cases, control was returned prior to completion of the measurement

Added Trace Allocation and maximization of traces via softkey

Version 0.7.17

Removed limitations on trace format according to measurement mode

Version 0.7.16

Fixed a bug related to COM interface and server release during program termination

Version 0.7.15

Fixed a bug related to saving state after removing the reference marker

Version 0.7.14

Added display of center while selecting "Center/Span" for stimulus

Fixed minor issues in VSWR calculation

Changed marker edit behavior when reference marker is enabled; now can edit in the offset or absolute frequency

Bandwidth search supports notch filter, for searching from null up to a specified level

Added selection of units for Touchstone files: Hz, kHz, MHz, GHz

Fixed N612 calibration kit coefficients

Added Exit submenu to avoid inadvertent exit



Software Release Notes

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Planar TR1300/

TR5048/TR7530

Changed behavior of color selection when inversion is enabled

Added a button for auto-scaling all traces simultaneously

Duplicated IF bandwidth selection on Stimulus menu

Version 0.7.11-Version 0.7.13

Enabled polar and Smith Chart formats for transmission coefficients.

Minimized registry access

Optimized algorithm for adjustment of the mirror channel at startup

Changed the averaging algorithm behavior

Version 0.7.10

Added print to MS Word with templates

Added calibration kit parameters for N611, N612

Fixed bug related to saving trace data in the state file

Version 0.7.9

Added loading Touchstone (S1P, S2P) files into memory the active trace, the memory trace, or measured S-parameters (stops scanning)

Extended menu for saving (trace, trace + calibration + state, all available options)

COM/DCOM command set supplemented to store the calibration file

Increased the maximum number of channels to nine

Implemented independent calibration indication for each channel

Added option for port extension

Added Max Hold function

Added option to save/restore the state of the channel

Fixed bug related to marker behavior near the reference line; marker now flips when off screen

Added automatic driver installation and registration of COM-server to installer



Software Release Notes

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Non-reversing 2-port VNAs of Planar and TR Series

Planar TR1300/

TR5048/TR7530

Version 0.7.8

Added support for Automatic Calibration Modules ACM6000T, ACM8000T

Added loading to the memory trace from Touchstone files (S1P, S2P)

Added display of calibration status in the channel window

Fixed a bug related to averaging with impedance conversion

Version 0.7.7

Fixed a bug in the COM/DCOM "Remote" Operation Mode

Version 0.7.6

Added ability to maximize the channel window

Added mouse control for the input fields

Fixed incorrect unit of measurement for the markers on the Smith charts

Added to the COM/DCOM blocking/unblocking manual program control management program

Added to the COM/DCOM control of visibility of the main program window

Updated Programming and Operating Manuals

Version 0.7.5

Added example of COM programming with LabVIEW

Fixed issue with retaining user's calibration after recalling stats

Fixed issue with incorrect number of frequency points being returned to COM client when segment frequency scan is used

Fixed issue with rounding segment boundaries to integer

Version 0.7.2 – Version 0.7.4

Fixed issue with exporting data into .S1P format (touchstone); S21 option was removed and the ability to export .S2P format was added.

Fixed issue with saving trace data using csv format in the time domain for distance units of measure (meters, feet, etc.)



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Planar TR1300/

TR5048/TR7530

Added additional program switches to be used by authorized service centers

Version 0.7.1

Fixed incorrect handling of complex data in averaging over n-dimensions

Version 0.6.9 – Version 0.7.0

Added COM/DCOM server to the program. The installer included the first version of programming manual

Version 0.6.8

Added distance units of measure (meters or feet) for use in the time domain; introduced the parameter Velocity Factor