

# Application Note AN2004

## Using the Excel Macro "ATE demo"

### Purpose

This application explains how to set up and use the ATE demo that can be downloaded as a zip archive from our homepage.

### Requirements

For the macro to work, the following components must be installed.

- *VISA shared components*: You need to install the APPH GUI and check the option to "install USB drivers". This will automatically install the required VISA drivers.
- *AP Comm COM lib*: The Anapico communication COM-library is necessary to access the drivers from within VBA. Unzip the archive that you have downloaded. In the folder "AP Comm COM Release" you will find the file "*register\_AP\_COMM\_COM.bat*" which you will have to run with administrative rights (right click -> Run as administrator). The batch file will register the library (that is located in the same folder) automatically and confirm successful registration.
- *Microsoft Excel*: You will need an installation of Microsoft Excel.

### Using the macro

Double click "VBA\_ATE\_Demo\_vx.xls". If you don't have macros enabled by default, there will be a message notifying you that the macro in this file has been disabled. Enable it. You can also configure Excel to always accept macros.

After startup, the basic user interface is shown. The blue background cells are user inputs. First, we need to set

the VISA identifier. If the APPH is connected over ethernet, the VISA identifier is the IP. For USB connections, the VISA identifier will be 'USB-<serial>' as shown in the first example on the right. To connect via GPIB, use the GPIB identifier string.

To start the measurement, click on the measurement button.

### Note

To optimize for speed, some of the measurement stages can be turned off. Keep in mind, that the frequency search has to be activated for the first measurement of a newly connected DUT.

ATE Measurement Demo	
Connected to	AnaPico AG, APPH200, 523-036315910-0241.0.0.0
Status	0: No error
Measurement	finished
Parameters	Start Measurement
VISA Identifier	GPIB0:1:INSTR
# of correlations	1
# of points per decade	50
fStart	1000
fStop	4.00E+07
Spot Noise	
10000	-126.6
1000000	-120.2
10000000	-140.5
0	-1000.0
Statistics	
from [Hz]	12000
to [Hz]	2.00E+07
RMS Jitter [s]	1.1987E-13
Integral PN [dBc]	-62.55
DUT Info	
DUT Frequency [Hz]	1399999648
DUT Power [dB]	7.6
Timing	
VBA Measurement [ms]	448
EW Measurement [ms]	408

Frequency Search  
 Statistical Comparison  
 Spot Noise  
 DUT Info

AP\_COMM identifier examples:  
 USB-243-023302700-0154, 192.168.1.39, GPIB0:1:INSTR