3.3 Measurement Monitoring Software **ng-display** for Android Devices

For usage in combination with all intelligent sensors from n-gineric

- Automatic sensor identification
- Supports different physical units
- 2 control windows
- Direct Sensor connectivity via USB
- Requirements: Android 3.2 or higher, USB Master or OTG
- Direct sensor connectivity via USB

Article Number	01-01-00087-01

Please let us know which Android device you use for compatibility check.

3. Software

3.1 Measurement Visualization & Control Software **n-quirer TTV3 basic** for Tablet PC, Laptop, Netbook, PC.

For usage in combination with all intelligent Sensors from n-gineric, providing functions:

- Graph recordings of
  - Torque vs. time
  - Torque vs. angle
  - Power vs. time
  - Power vs. angle
- Automatic sensor identification
- Graph reading with up to 2,000 measurements per second
- Display resolution 5 digits plus decimal point
- Supports different physical units
- 2 control windows with internal or external triggering
- 2nd trigger value for angle control or displacement control
- Adjustable low pass filter (10 to 500 Hz)
- Selectable 50/60 Hz noise rejection filter
- Supports the loading of a reference graph for comparison
- Direct export of the graph reading into Excel
- Direct export of measurements results listing into Excel with SPC document template
- Supported operating systems: Windows 7, Windows 8.
- Direct sensor connectivity via USB or Ethernet

Article Number	01-01-00012-02

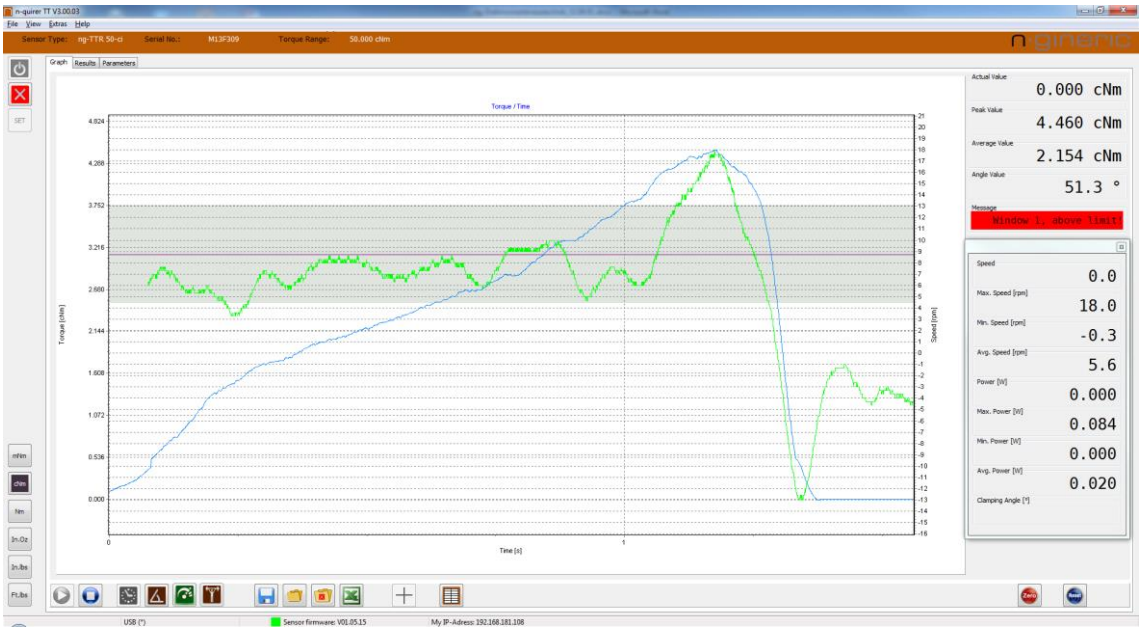
3.2 Measurement Visualization & Control Software **n-quirer TTV3 advanced** for Tablet PC, Laptop, Netbook, PC.

For usage in combination with all intelligent Sensors from n-gineric, providing functions:

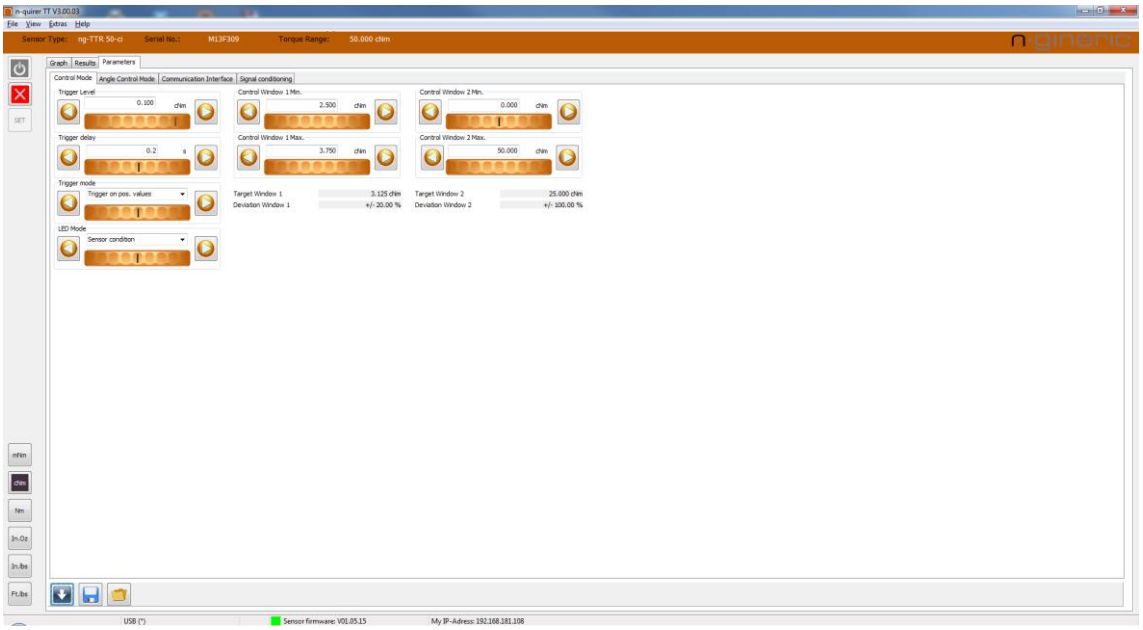
- Graph recordings of
  - Torque vs. time
  - Torque vs. angle
  - Force vs. time
  - Force vs. displacement
  - Speed vs. time
  - Speed vs. angle
  - Power vs. time
  - Power vs. Angle

- Automatic sensor identification
- Graph reading with up to 2,000 measurements per second
- Display resolution 5 digits plus decimal point
- Supports different physical units
- 2 control windows with internal or external triggering
- 2nd trigger value for angle control or displacement control
- Adjustable low pass filter (10 to 500 Hz)
- Selectable 50/60 Hz noise rejection filter
- Supports the loading of a reference graph for comparison
- Direct export of the graph reading into Excel
- Direct export of measurements results listing into Excel with SPC document template
- Supported operating systems: Windows 7, Windows 10.
- Direct sensor connectivity via USB or Ethernet
- Cursor function with single values
- 2nd measurement display window (free configurable)
- Bar code reader support for automatic loading of sensor configuration
- Supports a 2nd connected sensor ("n-clude-mode" e.g. for additional simultaneous measuring of clamping force in a screw joint

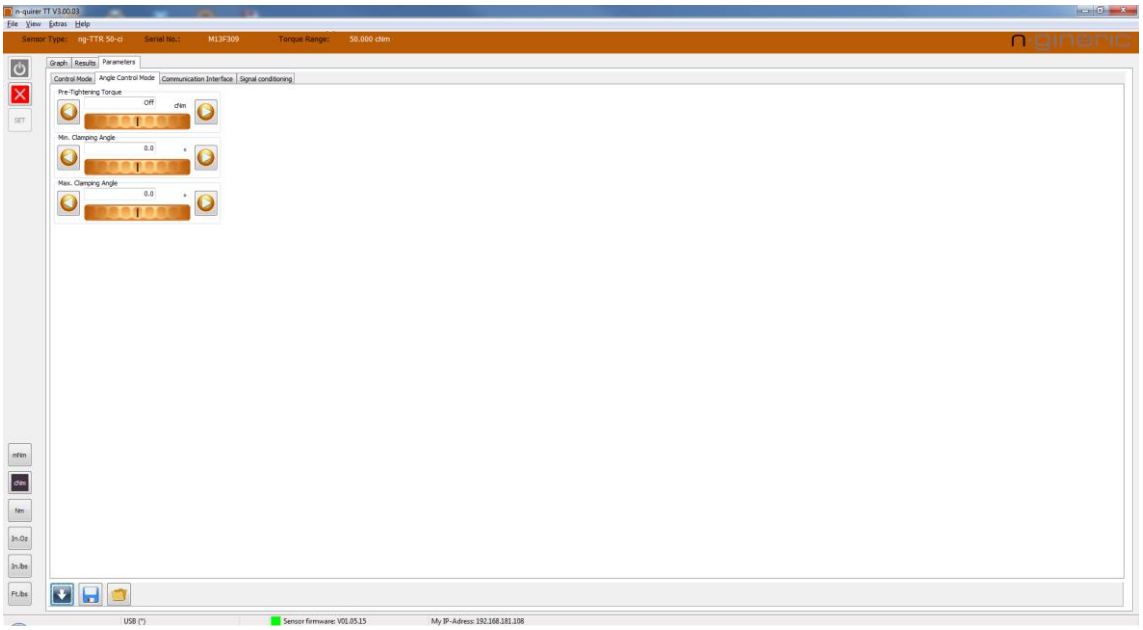
Article Number	01-01-00143-01



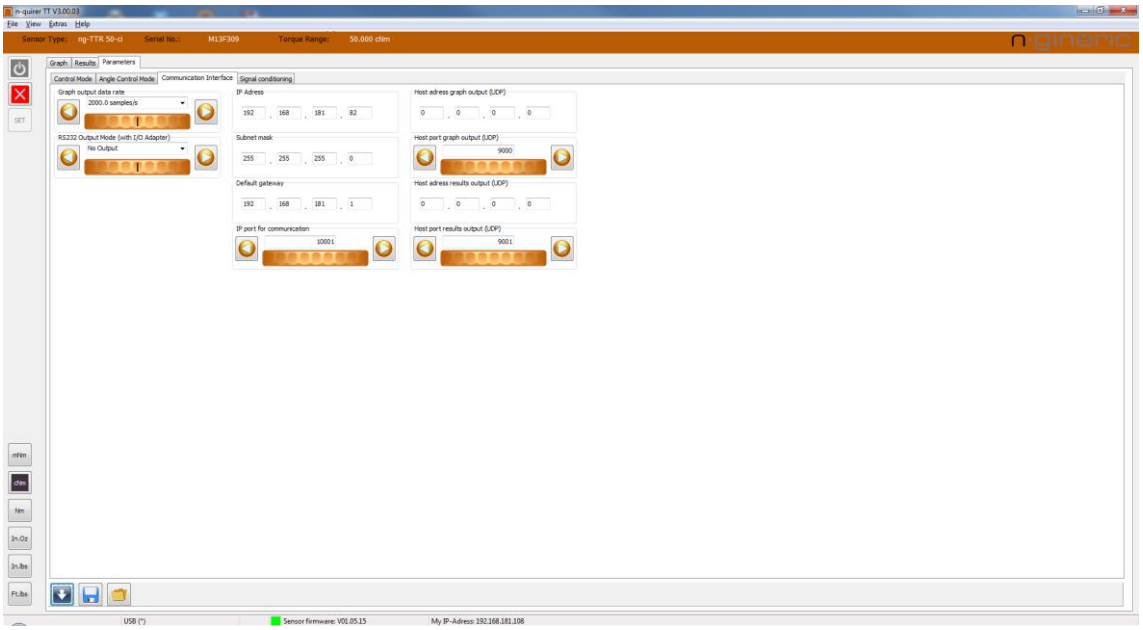
n-quirer TT V3 graph window



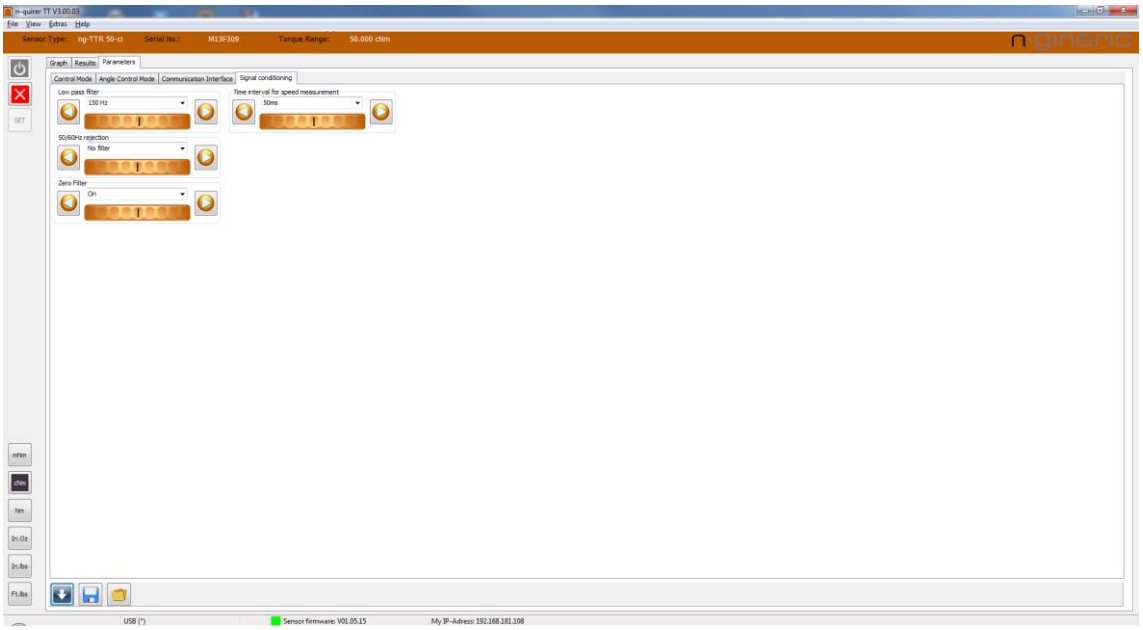
n-quirer TT control mode tab sheet



n-quirer TT angle control mode tab sheet



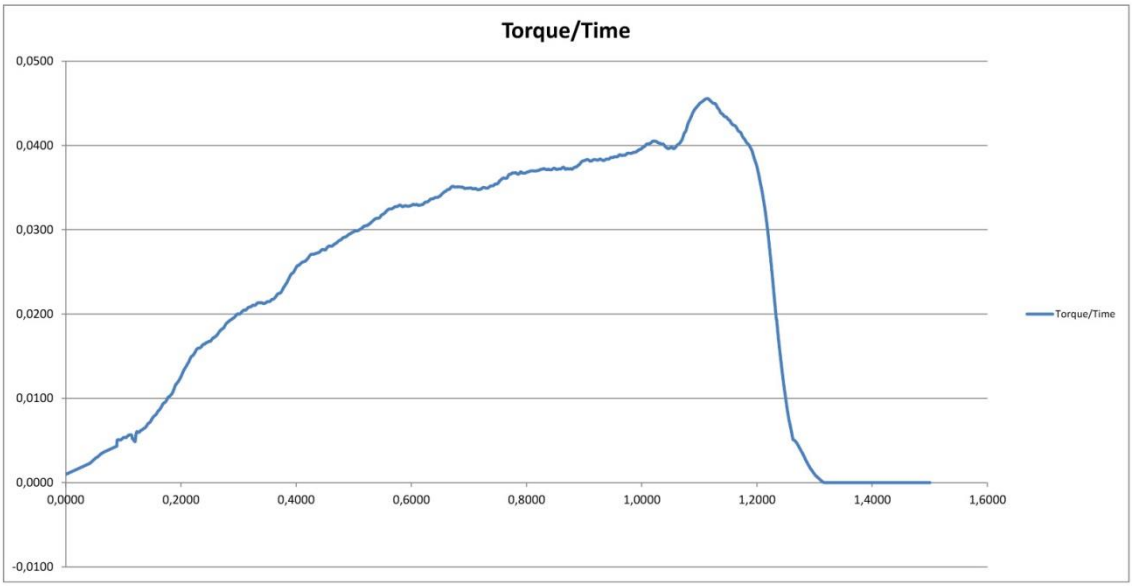
n-quirer TT communication interface tab sheet



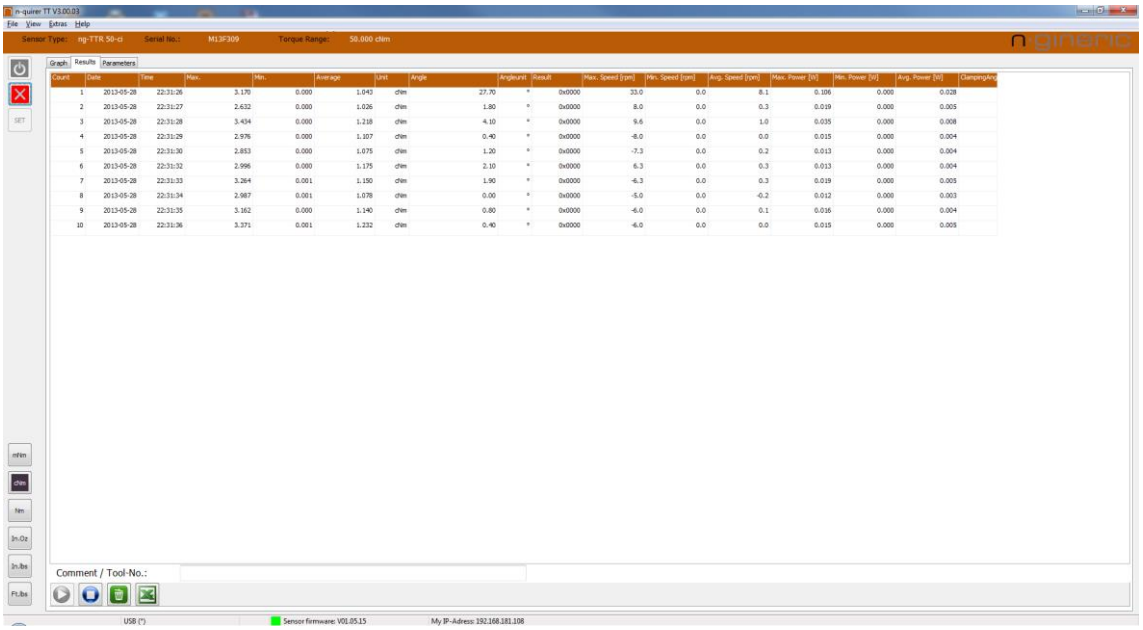
n-quirer TT signal conditioning tab sheet

Graph

Date/Time:	26.05.13 17:43:20
Tool Serial Number:	M13F309
Y-Axis Unit:	cNm
X-Axis Unit:	s



n-quirer TT graph exported to Excel



n-quirer TT measurement results tab sheet

n-gineric Statistical Report

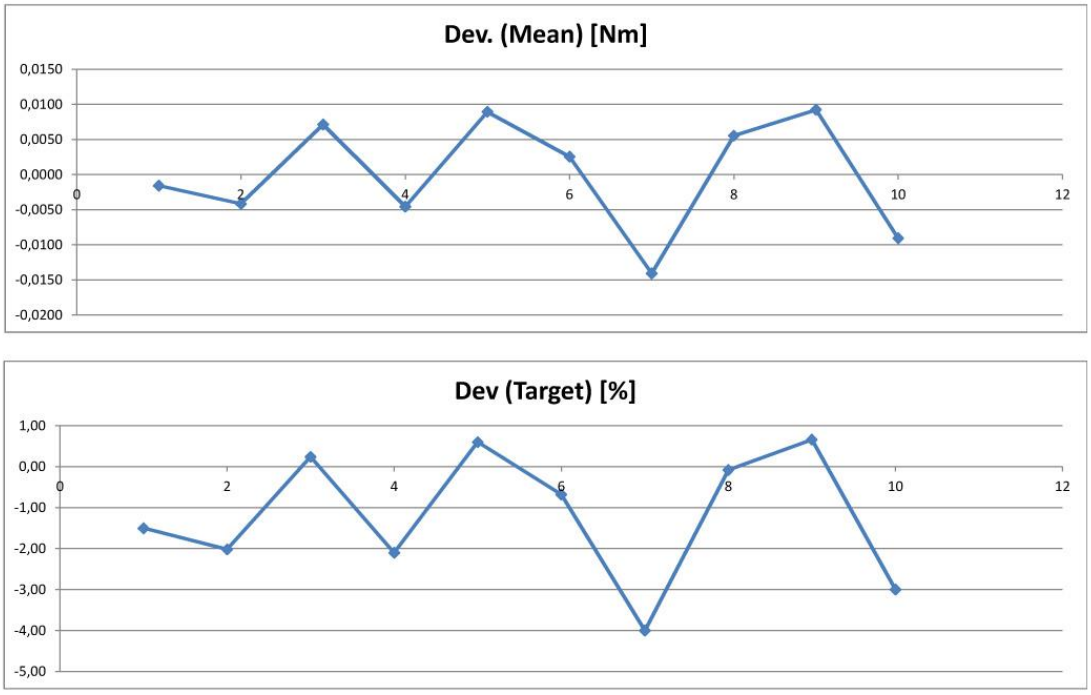
Date/Time:	28.08.12 18:01:49	Tool Serial Number:	M13F4E0
Target Value [Nm]:	0,5000	Tolerance (+/-) [%]:	12,00%

Count	Date	Time	Max.	Unit	Dev (Target) [%]	Dev. (Mean) [Nm]	Sqr. Deviation
1	2012-08-28	18:00:47	0,4925	Nm	-1,50	-0,0016	0,0000
2	2012-08-28	18:00:52	0,4899	Nm	-2,02	-0,0042	0,0000
3	2012-08-28	18:00:55	0,5012	Nm	0,24	0,0071	0,0001
4	2012-08-28	18:00:58	0,4895	Nm	-2,10	-0,0046	0,0000
5	2012-08-28	18:01:00	0,503	Nm	0,60	0,0089	0,0001
6	2012-08-28	18:01:03	0,4966	Nm	-0,68	0,0025	0,0000
7	2012-08-28	18:01:06	0,48	Nm	-4,00	-0,0141	0,0002
8	2012-08-28	18:01:11	0,4996	Nm	-0,08	0,0055	0,0000
9	2012-08-28	18:01:22	0,5033	Nm	0,66	0,0092	0,0001
10	2012-08-28	18:01:25	0,485	Nm	-3,00	-0,0091	0,0001

Lower Limit:	0,4400
Upper Limit:	0,5600
Process Mean:	0,4941
Standard Deviation:	0,0080
Cm	2,50
Cml	2,26
Cmu	2,75
Cmk	2,26

n-quirer TT SPC report in Excel

n-gineric Statistical Report



Example of an Excel report with SPC functionality. Modifications of the template are possible according to your demands.