TA3100 Wideband Power Measurement Standard

1. Summary

TA3100 is a high-precision wideband AC parametric measurement standard, which can simultaneously measure multiple amounts of electricity in the AC loop such as: voltage, current, frequency, phase, harmonics, Active power/electrical energy, reactive power/energy, apparent power, power factor, etc. It can be used with TA2100 Wideband Power Calibrator to calibrate medium and high precision power analyzers

2. Features

- Power/Energy Measurement Uncertainty: **0.015%.**
- Wideband Measurement Capability: DC, AC 10 Hz~100 kHz.
- Wideband Voltage Measurement Range: 0.3 V~1020 V.
- Wideband small Voltage Measurement Range: 2.5 mV~6 V.
- Wideband Current Measurement Range: 1 mA~20.5 A
- Voltage and Current support fully automatic range shifting.
- USB, RS232 and LAN interfaces.
- LCD touch screen.

3. Specifications

3. 1 Voltage /Current Measurement

Wideband Voltage Measurement	Measuring range	0.3 V~1020 V
	Frequency range	DC，AC 10 Hz～100 kHz
	Measurement uncertainty (k=2)	0.0025%*RD① + 0.003%*RG②
	Displays the number of digits	7-digit decimal
Wideband Current Measurement	Measuring range	1 mA~20.5 A
	Frequency range	DC，AC 10 Hz～100 kHz
	Measurement uncertainty (k=2)	0.005%*RD① + 0.005%*RG②
	Displays the number of digits	7-digit decimal
Wideband, Small Voltage Measurement	Measuring range	2.5 mH~6 H
	Frequency range	DC，AC 10 Hz～100 kHz
	Measurement uncertainty (k=2)	0.005%*RD① + 0.005%*RG②
	Displays the number of digits	7-digit decimal
	Wiring method	BNC socket
Note	Note: (1) RD is the reading value, (2) RG is the range value, the same below	

3.2 Frequency/Phase Measurement

Frequency	Measuring range	10.0000 0 Hz~100.000 0 kHz
	Displays the number of digits	7-digit decimal
	Measurement uncertainty (k=2)	0.001%
Phase	Measuring range	0.000 0°～ 359.999 9°
	Minimum resolution	0.000 1°
	Measurement uncertainty (k=2)	0.01°

3.3 Wideband Power Measurement

Power	Measuring range	A combination of voltage and current (or small voltage measurement).
	Optimal measurement uncertainty (k=2).	0.005%*RD① + 0.01%*RG②