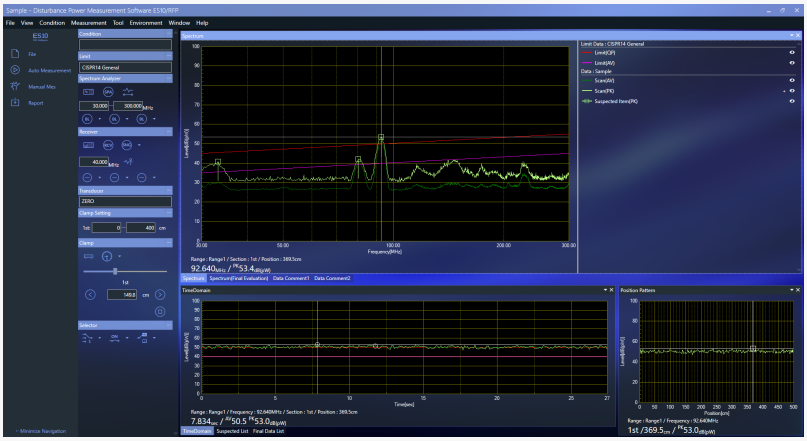
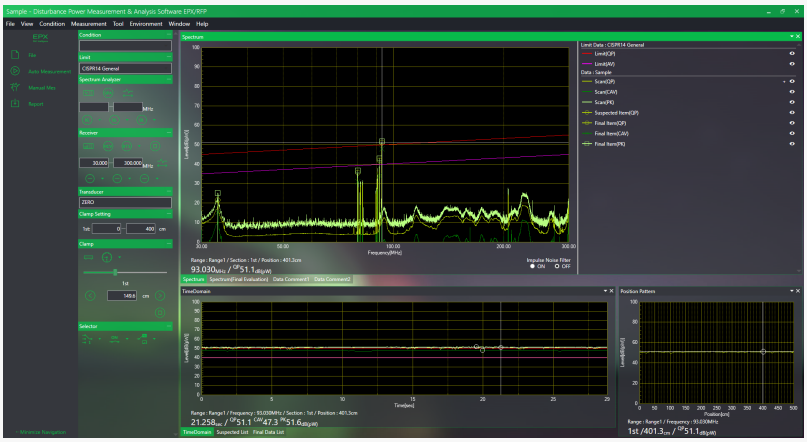
TOYO Unveils New Software for Disturbance Power Assessment

Improves EMI measurement efficiency by integrating functionalities that empower users to utilize the capabilities of advanced measurement instrumentation



ES10/RFP Software



EPX/RFP Software

FREMONT, CALIFORNIA, UNITED STATES, December 4, 2023 /EINPresswire.com/ -- TOYO Corporation (TOYO), a leading provider of advanced measurement solutions, announces new sophisticated evaluation software, "EPX/RFP" and "ES10/RFP," designed for disturbance power measurement. These two software solutions characterize and measure electromagnetic noise emanating from cables linked to electronic devices such as home appliances.

Electromagnetic noise, or interference, occurs when electromagnetic waves from an electronic device negatively impact other electronic devices. Electromagnetic interference (EMI) measurements are performed to assess the electromagnetic noise emitted by a product, ensuring that its levels do not disrupt the normal operation of other electronic devices.

Electromagnetic noise serves as a common factor contributing to malfunctions in various electronic equipment. Electronic devices, including home appliances, consistently emit electromagnetic noise through their connecting cables. When this noise reaches a significant level, it has the potential to disrupt the functioning of other electronic devices, leading to malfunctions.

Consequently, electronic equipment manufacturers conduct electromagnetic noise measurements as a pre-release assessment to ensure that their products adhere to specified noise limits outlined in standards. This measurement process is integral during product development, and at times, steps are implemented to mitigate and suppress electromagnetic noise.

TOYO crafts in-house EMI measurement software, drawing upon our accumulated knowledge, 40 years of experience, and customer feedback. Throughout these four decades, TOYO has been at the forefront, delivering an extensive array of measuring instruments and solutions in the realm of electromagnetic compatibility (EMC) testing. With over 30 years of expertise in test software development, which forms the core of EMC test systems, we have created diverse software applications for measuring EMI.

The "EP" series, introduced in 1998, has supported various EMI receivers and associated equipment such as antenna masts and turntables for EMI measurements. To date, the software has been deployed at more than 2,000 sites around the world. The newly introduced "EPX" and "ES10" software series represents a complete overhaul of the original "EP" series.

The "EPX" series is designed to accommodate the latest measuring instruments, while the "ES10" series offers compatibility with a diverse range of measuring devices, empowering users to select software tailored to their specific requirements.

The "EPX" series is engineered to seamlessly integrate with Keysight Technology's "N9048B PXE" EMI receiver. This integration enhances the overall efficiency of the EMI measurement process. The N9048B PXE employs a "gapless measurement" method, ensuring continuous observation and measurement of electromagnetic noise. This pioneering approach addresses the limitations of conventional measurement methods, where noise is often missed. The gapless measurement functionality allows comprehensive scrutiny of all electromagnetic noise in a single measurement, mitigating the need for subsequent rework due to overlooked problematic noise. This results in a reduction in overall measurement time.

Additionally, the "EPX" series incorporates TOYO's patented technologies, specifically “Spectrum analysis method and its device (Patent No. 6533024)” and “Radiated disturbance measurement method and radiated disturbance measurement system (Patent No. 6505348),” simplifying the execution of tests in accordance with established standards.

The "ES10" series, on the other hand, is designed for customers using measurement equipment other than the "N9048B PXE." It can perform similar measurements, including conformance tests, at a lower cost.

Both software products introduce two innovative features aimed at enhancing the efficiency and speed of measurements and countermeasures. Firstly, there's a time-based assessment of measured electromagnetic noise, complementing the traditional frequency-based evaluation.

Secondly, the software facilitates the straightforward presentation of variances between two distinct measurement outcomes.

The time-based evaluation function allows for easy identification of the source of troublesome noise by comparing the visualized cycle of electromagnetic noise occurrences with the drive cycle of installed components. Additionally, the function displaying the disparity between pre and post-noise countermeasure measurements streamlines the noise mitigation process, offering a quick and effective means to assess the impact of countermeasures.

By incorporating the "EPX/RFP" Disturbance Power Measurement and Analysis Software and the "ES10/RFP" Disturbance Power Measurement Software into the "EPX" and "ES10" series, TOYO aims to support our customers in producing superior quality products. This addition addresses a diverse array of EMC testing requirements, enabling effective mitigation of emitted noise and enhanced control over product quality during the manufacturing process.

The main features of the Disturbance Power Measurement and Analysis Software “EPX/RFP” and Disturbance Power Measurement Software “ES10/RFP” are:
• Effectively discern complex noise patterns that have been on the rise in recent years by leveraging the Time Domain Scan (TDS) feature, facilitating time-based assessment of recorded electromagnetic noise levels. Additionally, the Accelerated Time Domain Scan (A-TDS) feature ensures continuous monitoring of electromagnetic noise across the entire measurement frequency range, allowing for time-based evaluation. The A-TDS function is exclusive to the "EPX" series
• Streamlines testing processes by automatically managing measurement device settings and other parameters through the software
• Introduces a feature for displaying variances between multiple sets of measurement data, simplifying the comparison and analysis of results
• Complies with CISPR14 and the Electrical Appliance and Material Safety Law

For further information or to request a demonstration, please contact us at info@toyotechus.com. You can also visit us on the web at www.toyotechus.com/emc.

Steve Wong
TOYOTech
510-438-9548
email us here