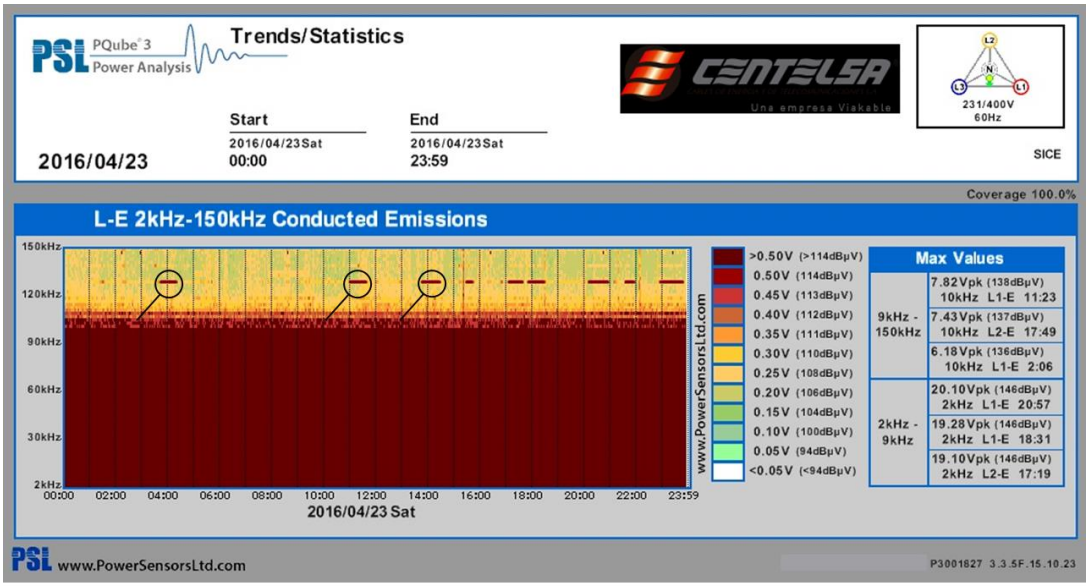
The growing penetration of renewables on the grid, and other grid-connected technologies can produce 2 kHz - 150 kHz emissions which cause serious equipment problems for a wide range of manufacturers; from those that have sensitive and critical equipment such as semiconductor fabs, to laboratories, factories, and data centers. Traditional mitigation techniques call for utilizing Uninterruptible Power Supply (UPS), Automatic Voltage Regulator (AVR), or a Dynamic Voltage Restorer (DVR) to help insure a constant flow of electrons - but these can also cause unintended consequences.

Recently, Centelsa, Latin America's leading manufacturer of electric and communication cables, tried to stabilize the power coming into their facility with a DVR, which helped protect against sags, but it also created emissions that seemed to cause intermittent shutdown of their laboratory test. Help arrived from Lead Engineer Mauricio Beltran of SICE, who conducted on-site diagnostics of the power supply with PSL's PQube 3 Power Analyzer.



The easy-to-install PQube 3 immediately detected the emissions in the 2 kHz - 150 kHz spectrum, and generated a GIF file of the event that conclusively showed that the installed DVR was generating them (as illustrated by above picture). This user-friendly graph quickly enabled Mauricio to pinpoint which polluting frequency correlated with equipment failure (in this case just above 120 kHz), and was then able to design, select and install a filter to eliminate these emissions. Since the initial diagnosis, and installation of filters, Centelsa's equipment has been operating reliably, without any issues.

To learn more about the origin and impact of the growing 2 kHz - 150 kHz emissions, please download our Application Note. To see how the PQube 3 can help take the guesswork out of detecting bad power quality, take a look at the product specifications, or request a quote. How about scheduling a product demo at your convenience? We'd like to help you go beyond bad power quality!