

DEVELOPMENT OF A MICRO MONITORING STATION FOR HOT SPOT NARROW STREET MEASUREMENTS

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Environnement S.A has finalized an ambitious research and development program whose main objective, besides improving the analyzers metrology, was to shrink by ten the size, volume, weight and power consumption of the analyzers. Novel SMD (Surface Mounted Device) electronics and true modular design made it possible to manufacture a prototype analyzer with up to 3 different optical measurement cells (Chemiluminescence, UV Photometry, IR Gas Filter Correlation), a common electronics in a single low volume housing (tight box) and in accordance with internationally approved monitoring methods. Build around this new multi-gas analyzer, the MMS is a small shelter as used by telephone companies in which a wall mounted tight box version of the multigas analyzer is placed. Optionally, a suspended particulate analyzer such as a beta attenuation instrument MP101M.C (equivalent certified instrument with EN12341 for automatic PM10 measurement) or model PM162M automatic sampler compliant with the reference method EN12341, can be placed inside. The MMS addresses one of the biggest problems with Air Quality monitoring: finding space for a shelter. This is becoming more important in countries where local Government must monitor where the pollution is highest. These «Hot spots» can be typically described as locations with relatively narrow carriageways with high buildings on both sides. Description of the system as well as the first campaign of measurements using this technology in UK are presented.