

# Measurement of BPM Cable Dependence To Humidity and Temperature Variations

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BPM electronics are compensated to cancel local drifts of its electronics components to temperature or humidity variations. However the dependences of the BPM cables to those external parameters are not yet considered or quantified. If the temperature is generally well controlled in the synchrotron buildings ( $\pm 1^\circ\text{C}$ ), the relative humidity is not and may vary between 20 to 70 % over a year. In order to estimate the cables dependencies to (large) humidity variations and (small) temperature variations, a climatic enclosure has been rented. Systematic measurements have been performed on different cable types (LMR, CNT) and assemblies (independent or bundled cables).

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**Track Classification:** BPM error compensation schemes