It is demonstrated, how optical interference contrast microscopy and atomic force microscopy (AFM) can serve as complementary techniques to electron microscopy in visualization, in profiling, and in measurement of refractive index and conductivity of graphene. The topography of graphene flakes has been measured by several optical phase depended methods, i.e. by microscopic ellipsometry [1], white light interferometry (WLI) [2] and total interference contrast (TIC) [3]. TIC has some advantages with respect to WLI: TIC uses standard microscope objectives, which offer higher lateral resolution; Mechanical stabilization of the interferometric paths is not required in TIC. The height profile of graphene layers with up to 7 pm vertical resolution is obtained simply from one snapped image of the interferogram. We study the effect of different substrates, conductive Si vs. isolating SiO2, on the electro-optic properties of graphene layers. To this end TIC phase profiles of graphene layers were recorded, while AFM measured the topography of the layers [3]. The best fit of the measured phase profile with the AFM-measured heights yields the particular refractive index and conductivity of graphene. Extraordinary high \( N = 3.9 + 9.2 \text{i} (\varepsilon = -67 + 72\text{i}) \) is obtained for the graphene on conductive substrate. The optical conductivity is 38 fold increased with respect to the reference value obtained on isolating substrate by TIC [3] and by microscopic ellipsometry [1]. The increased conductivity and the strong negative real part of \( \varepsilon \) are both mathematically consistent with the dielectric Drude function, which describes a damped harmonic electron oscillation with zero eigenfrequency and nonzero effective electron mass. The oscillator model of the electron is a simple model of field-induced conductivity, which is effective in FETs made of graphene. Similar electronic interaction of graphene with the substrate tunes the chemical reactivity of graphene [4] and the frequency of surface plasmon resonance in the substrate [5].