A High Brightness Infrared Synchrotron Radiation Insertion Device, F. MEOT, CEA, Saclay - Synchrotron radiation (SR) spectral brightness from a regular dipole is peaked in the region of the so-called critical frequency Ω_c. The paper demonstrates how the peak brightness can be shifted towards very low frequencies $\Omega << \Omega_c$. The so-obtained low-frequency SR is confined in a narrow 1/gamma aperture cone, and is more than two orders of magnitude brighter than regular low-frequency dipole SR. Such SR source is an excellent candidate as an infrared insertion device in existing or future accelerators.