Question: A locally finite Borel measure μ is said to be $C-$doubling on $\mathbb{R}^2$ is for any Euclidean ball $B(x, r) \subset \mathbb{R}^2$ we have

$$\mu(B(x, 2r)) < C\mu(B(x, r)) \,.$$

Show that any such measure gives measure zero to a straight line L.