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(54) Title: PERIODIC TRANSMISSION LINE CABLE FILTERING

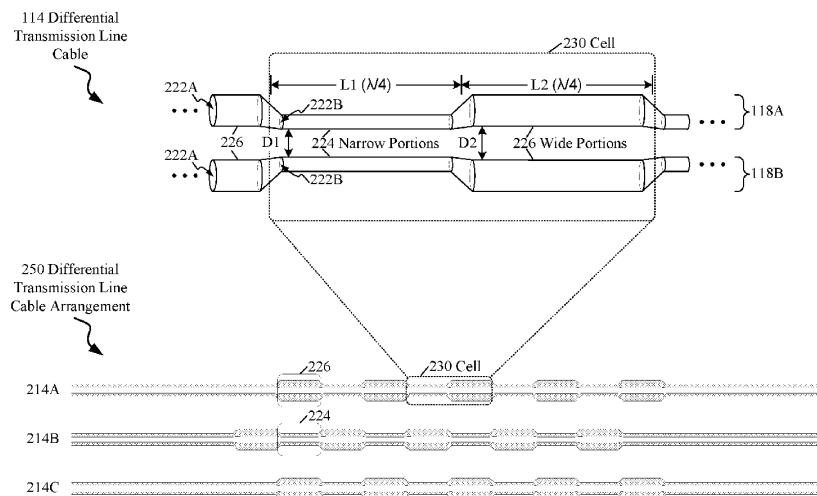


FIG. 2

(57) Abstract: A differential transmission line cable includes a notch filter to manage common-mode energy. The cable includes a narrow portion with two adjacent electrical conductors each having a narrow cross-sectional area and spaced at a narrow spacing. The cable also includes a wide portion longitudinally adjacent to the narrow portion. The wide portion includes the two adjacent electrical conductors each having a wide cross-sectional area greater than the narrow cross-sectional area and spaced at a wide spacing greater than the narrow spacing. The wide and narrow cross-sectional areas and spacings are specified so that the differential-mode impedance of the differential transmission line cable is uniform throughout both the narrow and wide portions and so that differences in the common-mode impedances of the narrow and wide portions create a notch filter to manage common-mode energy in the differential transmission line cable.

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