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61/378,856 31 August 2010 (31.08.2010) US(71) Applicant (for all designated States except US): **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

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Declarations under Rule 4.17:

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(54) Title: HIGH DENSITY SHIELDED ELECTRICAL CABLE AND OTHER SHIELDED CABLES, SYSTEMS, AND METHODS

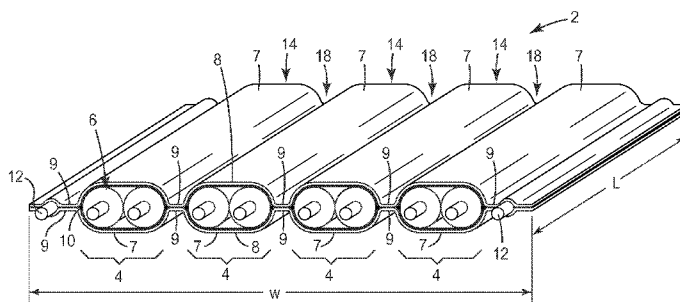


FIG. 1

(57) Abstract: A shielded electrical ribbon cable (2) includes conductor sets (4) each including one or more insulated conductors (6), and a first and second shielding film (8) on opposite sides of the cable. In transverse cross section, cover portions (7) of the shielding films (8) substantially surround each conductor set (4), and pinched portions (9) of the films (8) form pinched portions of the cable on each side of each conductor set (4). Dense packing is achieved while maintaining high frequency electrical isolation between conductor sets (4). When the cable (2) is laid flat, a quantity s/D_{min} is in a range from 1.7 to 2, where s is a center-to-center spacing between nearest insulated conductors (6) of two adjacent conductor sets (4), and D_{min} is the lesser of the outer dimensions of such nearest insulated conductors (6). Alternatively, a first and second conductor set each having only one pair of insulated conductors can satisfy a condition that $\Sigma/\sigma 1$ is in a range from 2.5 to 3. Other shielded cables, systems, and methods, which may or may not utilize the dense packing, are also disclosed.



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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
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- *with international search report (Art. 21(3))*