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(54) Title: PATTERNED SUBSTRATES WITH DARKENED CONDUCTOR TRACES

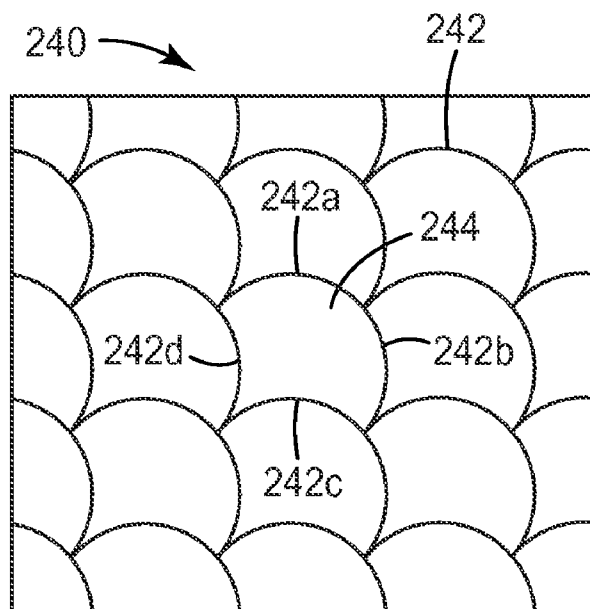


FIG. 14

(57) Abstract: The present disclosure provides an article having (a) a substrate having a first nanostructured surface that is antireflective when exposed to air and an opposing second surface; and (b) a conductor micropattern disposed on the first surface of the substrate, the conductor micropattern formed by a plurality of traces defining a plurality of open area cells. The micropattern has an open area fraction greater than 80% and a uniform distribution of trace orientation. The traces of the conductor micropattern have a specular reflectance in a direction orthogonal to and toward the first surface of the substrate of less than 50%. Each of the traces has a width from 0.5 to 10 micrometer. The articles are useful in devices such as displays, in particular, touch screen displays useful for mobile hand held devices, tablets and computers. They also find use in antennas and for EMI shields



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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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A. CLASSIFICATION OF SUBJECT MATTER***H05K 9/00(2006.01)i, B32B 3/12(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: substrate, nano, pattern, conductor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	US 2007-0229817 A1 (HONG WANG et al.) 04 October 2007 See abstract, paragraph [0040], claims 1,9,45,48,49,51 and figures 1-6.	1-6,8-9 7,10-15
Y A	US 2010-0156840 A1 (FREY MATTHEW H. et al.) 24 June 2010 See abstract, paragraphs [0005],[0053],[0110]-[0119], claims 1,11,19,20 and figures 16-18.	1-6,8-9 7,10-15



Further documents are listed in the continuation of Box C.



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