EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1921

DATE: AUGUST 1, 2026

PROJECT DP12948

The following classification changes will be effected by this Notice of Changes:

Action	**Subclass**	**Group(s)**
DEFINITIONS:		
Definitions New:	H05K	1/181, 1/185
Definitions Modified:	H05K	SUBCLASS
	H05K	1/00, 13/00

No other subclasses/groups are impacted by this Notice of Changes.

This Notice of Changes includes the following *[Check the ones included]:*

1. CLASSIFICATION SCHEME CHANGES
    - ☐ A. New, Modified or Deleted Group(s)
    - ☐ B. New, Modified or Deleted Warning(s)
    - ☐ C. New, Modified or Deleted Note(s)
    - ☐ D. New, Modified or Deleted Guidance Heading(s)
2. DEFINITIONS
    - ☒ A. New or Modified Definitions (Full definition template)
    - ☐ B. Modified or Deleted Definitions (Definitions Quick Fix)
3. ☐ REVISION CONCORDANCE LIST (RCL)
4. ☐ CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5. ☐ CHANGES TO THE CROSS-REFERENCE LIST (CRL)

2. A. DEFINITIONS (new)

H05K1/181

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "surface mounted components" and "surface mounted device [SMD]"

H05K1/185

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Manufacture or treatment of semiconductor packages by depositing layers on chips or wafers extending onto an encapsulation that laterally surrounds the chip or wafer, e.g. fan-out wafer level package [FOWLP] RDLs	H10W70/09
Fan-out layouts of interconnections in insulating or insulated package substrates, interposers or redistribution layers [RDL] of semiconductor or solid-state devices	H10W70/655

Informative references

Attention is drawn to the following places, which may be of interest for search:

Integrated inorganic electric semiconductor devices formed in insulating or conducting substrates	H10D86/00

2. A. DEFINITIONS (modified)

H05K

Definition statement

Replace: The existing Definition statement with the following updated text.

Constructional features of:
- Printed circuits, e.g. rigid, flexible or stretchable printed circuits;
- Details of electronic circuit boards such as their materials or their interconnections;
- Printed circuit boards [PCB], e.g. rigid, flexible or stretchable PCBs;
- Casings, cabinets or drawers for electric apparatus;
- Constructional details common to different types of electric apparatus such as modifications to facilitate cooling, ventilating or heating, e.g. cooling arrangement for casings/cabinets;
- Constructional details of screening for electric apparatus or components against electric or magnetic fields, e.g. EMI shielding arrangements for casings/cabinets;
- Manufacture of assemblages of electrical components;
- Machines for mounting electronic components on circuit boards.

References

Informative references

Replace: The text in the following existing row in the Informative references table with the updated text.

Integrated inorganic electric semiconductor devices having multiple passive components formed in or on insulating or conducting substrates	H10D86/80

Glossary of terms

Insert: The following one new row into the existing Glossary of terms table.

printed circuit board	a circuit board in/on which a printed circuit is formed. Various electronic components, such as semiconductor chips, capacitors and resistors, may be mounted thereon or embedded therein, while being electrically connected to the printed circuit. Electronic components may also be formed by printing. Single-sided or double-sided printed circuit boards typically have a structure where the insulating support forms the substrate on which the conductive patterned layer(s), i.e. the printed circuit, is/are provided. Multilayer printed circuit boards have a layered structure in which conductive layers and insulating materials are laminated in the form of a substrate, and interconnections can be provided, e.g. by through-holes, vias or internal layers. PCBs may be rigid, flexible, rigid-flex (a combination of both) or stretchable.

Insert: The following new Synonyms and Keywords section.

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

PCB	printed circuit board

H05K1/00

Definition statement

Replace: The existing Definition statement with the following updated text.

- Printed circuits, e.g. rigid, flexible or stretchable printed circuits;
- Details of printed circuit boards [PCB], e.g. structural aspects or use of materials for PCBs;
- Printed elements for electrical connection to or between printed circuits;
- Printed electric components in PCBs, e.g. resistors, capacitors or inductors formed by printing materials onto the board, or within its layer structure;

- Structural association of two or more PCBs;
- Structural association of PCBs and non-printed electric components, e.g. within internal layers.

Relationships with other classification places

Replace: The existing Relationships text with the following updated text.

There is no clear boundary between the field of printed circuit boards and other more specific fields, e.g. inductors (H01F), antennas (H01Q), waveguides (H01P), chip cards (G06K19/07), other packaging levels (semiconductor packages H10W90/00 and H10W99/00), connectors (H01R) and various electronic components. The materials and methods (deposition, patterning, connection) used for manufacture of printed circuit boards have their general fields.

References

Application-oriented references

Replace: The existing Application-oriented references table with the following updated table.

Record carriers with integrated circuit chips, e.g. chip cards	G06K19/07
Thin film inductors	H01F
Waveguides	H01P
Antennas	H01Q
Connectors	H01R
Assemblies of multiple devices comprising at least one electronic memory device covered by subclass H10B	H10B80/00
Assemblies of multiple devices comprising at least one inorganic electric device covered by subclass H10D	H10D80/00
Integrated inorganic electric semiconductor devices having multiple passive components formed in or on insulating or conducting substrates	H10D86/80

Assemblies of multiple devices, comprising at least one photovoltaic cell covered by group H10F10/00	H10F19/00
Assemblies of multiple devices comprising at least one individual radiation-sensitive semiconductor device	H10F39/00
Assemblies of multiple devices comprising at least one inorganic light-emitting semiconductor device having potential barriers	H10H29/20
Assemblies of multiple devices, comprising at least one organic element specially adapted for rectifying, amplifying, oscillating or switching, covered by group H10K10/00	H10K19/00
Assemblies of multiple devices, comprising at least one organic element sensitive to infrared radiation, light, electromagnetic radiation of shorter wavelength or corpuscular radiation	H10K39/00
Assemblies of multiple devices, comprising at least one organic light-emitting element covered by group H10K50/00	H10K59/00
Assemblies of multiple devices, comprising at least one thermoelectric or thermomagnetic element covered by groups H10N10/00 - H10N15/00	H10N19/00
Assemblies of multiple devices, comprising at least one piezoelectric, electrostrictive or magnetostrictive element covered by groups H10N30/00 - H10N35/00	H10N39/00
Assemblies of multiple devices, comprising at least one galvanomagnetic or Hall-effect element covered by groups H10N50/00 - H10N52/00	H10N59/00
Assemblies of multiple devices, comprising at least one superconducting element covered by group H10N60/00	H10N69/00
Assemblies of multiple devices, comprising at least one solid-state element having no potential barriers, and specially adapted for rectifying, amplifying, oscillating or switching	H10N79/00
Assemblies of multiple devices, comprising at least one bulk negative resistance effect element covered by group H10N80/00	H10N89/00
Package substrate or redistribution layers for semiconductor or solid-state devices	H10W70/00
Package configurations of devices covered by class H10	H10W90/00

Informative references

Replace: The existing Informative references table with the following updated table.

Backplanes	H05K7/14
Screening against electric or magnetic fields	H05K9/00
Devices for protecting against damage from electrostatic discharge	H05K9/0067
Electrostatic discharge protection, e.g. ESD treated surface for rapid dissipation of charges	H05K9/0079
Handling/transporting	H05K13/0061
Cleaning	B08B
Casting of metals	B22D
Metal powder processing	B22F
Mechanical drilling	B23B
Mechanical milling, e.g. metal milling	B23C
Slotting	B23D
Erosion by electric discharge	B23H
Soldering or welding	B23K
Laser ablation, e.g. patterning by laser ablation	B23K26/00
Details of machining apparatus	B23Q
Grinding, polishing	B24B
Abrasive working	B24C
Cutting; Punching	B26D, B26F
Laminating	B32B37/00
Processes for the manufacture or reproduction of printing surfaces	B41C
Printing apparatus	B41F
Inkjet printing	B41J2/00
Printing processes	B41M
Selective transfer processes	B41M5/00

Printing plates or foils	B41N
Handling flexible substrates	B65G
Etching polymeric substrates	C08J7/00
Coating by dipping in molten metal	C23C2/00
Coating by spraying with molten metal	C23C4/00
Coating by physical vapour deposition or sputtering or ion implantation	C23C14/00
Coating by chemical deposition	C23C16/00
Chemical coating by decomposition of either liquid compounds or solutions of the coating forming compounds, without leaving reaction products of surface material in the coating	C23C18/00
Coating by electroless plating	C23C18/16
Chemical coating by decomposition of either solid compounds or suspensions of the coating forming compounds, without leaving reaction products of surface material in the coating	C23C20/00
Conversion coating of metals	C23C22/00
Coating by powder methods	C23C24/00
Other coating methods	C23C26/00
Coating metal with enamel (glass)	C23D
Corrosion protection of metal	C23F
Cleaning or degreasing of metal	C23G
Electroplating of metal	C25D
Electroforming of metal	C25D1/00
Anodizing of metal	C25D11/00
Electrophoretic coating of metal	C25D13/00
Electrolytic etching of metal	C25F
Non-electric light sources using luminescence	F21K
Non-portable lighting devices	F21S
Functional features or details of lighting devices or system thereof	F21V
Drying	F26B

Testing, inspection of material	G01N
Electrical testing	G01R31/00
Electro-optical devices comprising optical waveguides, e.g. modules/PCBs having optical waveguides	G02B6/00
Coupling light guides with opto-electronic components	G02B6/42
Liquid crystal displays [LCD]	G02F1/13
Apparatus or arrangements for taking photographs or for projecting or viewing them	G03B
Photolithography masks	G03F1/00
Lithography, e.g. photoresists	G03F7/00
Photolithography registration	G03F9/00
Electrography	G03G
Computers	G06F
Touch screens	G06F3/00
Security details of computer components	G06F21/70
Designing of the conductive pattern	G06F30/00
Circuits for displays	G09F9/00
Disk drive suspensions	G11B5/00
Memory modules	G11C5/00
Cables	H01B
Insulated conductors or cables characterised by their form	H01B7/00
Apparatus or processes specially adapted for manufacturing conductors or cables	H01B13/00
Resistors, e.g. printed resistors	H01C
Printed capacitors	H01G
Switches, fuses	H01H
Plasma displays	H01J17/49
Processes or means, e.g. batteries, for the direct conversion of chemical energy into electrical energy	H01M

Laser devices	H01S
Spark gaps; Overvoltage arresters	H01T
Emergency protective circuits	H02H
Power conversion	H02M
Receivers/transceivers (modules)	H04B1/00
Telephones	H04M
Optical modules	H04N
Electromechanical transducers	H04R
Electric light sources not otherwise provided for	H05B
Impedance arrangements, e.g. impedance matching, reduction of parasitic impedance for semiconductor devices	H10W44/20
Package configurations of devices	H10W99/00

Delete: The entire Special rules section.

H05K13/00

Definition statement

Replace: The existing Definition statement with the following updated text.

Apparatus or processes for placing components, e.g. onto the printed circuit boards. This group only relates to bare printed circuit boards and not circuit boards already fitted in an apparatus (thus no displays or hard disks).

References

Informative references

Replace: The existing Informative references table with the following updated table.

Printed circuits	H05K1/00
Assembling printed circuits with electric components	H05K3/30
Apparatus or processes for soldering	B23K
Manipulators	B25J
Packaging, packing or unpacking	B65B
Generic processes or apparatus for the manufacture or treatment of devices covered by class H10	H10P

Delete: The entire Synonyms and Keywords section.