

SEARCH HISTORY

Application Number	PCT/US 19/63793
Search Conducted By	SCC
Search Approved By	RLP

CPC/IPC Classifications Searched	IPC(8) – H01R 4/48 (2020.01) CPC – H01R 13/6277, H01R 13/639, H01R 13/62933, A61B 5/04, A61B 5/04286
Date Conducted	17 January 2020 (17.01.2020)

Documentation Searched	IPC(8) - H01R 4/48 (2020.01) (Keyword limited; terms below) CPC - H01R 13/6277, H01R 13/639, H01R 13/62933, A61B 5/04, A61B 5/04286 (Keyword limited; terms below)
Search Terms Used	neuromonitoring, tracking, electrode electrodes group similar, monitoring, functionality, deployment, location, area, region, lead, connectors, unique, (ID), identification, code, control, unit, 128-bit, GUID, input, sockets, pin-to-pin, electrical, pass, through, production, date, authentication, memory, output, pin, bar, radio, frequency, (RFID), dip, switch, resistor, orientations, polarities, voltage, levels, rigid, plate, 3D, three-dimensional, image, picture, photo, frame, pixel, positions, graphical, user, interface, (GUI), disconnected, reconnected, selection, of the trace, trigger, activate, visual, display, indicator, proximity, vicinity, light, electroencephalography, electrocardiogram, electromyography, intraoperative, procedure, surgery, polysomnography, crimp, adhesive, embedded-code, value, maximum, number, sterilization, cycles, frequency
Date Conducted	17 January 2020 (17.01.2020)

Electronic Database Searched	Google Scholar
Files Searched	Full-text: AU BE BR CA CH CN DE DK EP ES FI FR GB IN JP KR SE TH TW US WO Bibliographic: (Europe) AT BA BE BG CH CS CY CZ DD DK EE ES FI GE GR HR HU IE IS IT

	LT LU LV MC MD MT NL NO PL PT RO RS SE SI SK SM TR UA YU (Asia) EA GC HK ID IL IN KZ MN MY PH RU SG SU TH TJ TW UZ VN (North America) CA CR CU DO GT HN MX NI PA SV TT (South America) AR BR CL CO EC PE UY (Australasia) AU NZ (Africa) AP DZ EG KE MA MW OA ZA ZM ZW
<p align="center">Date Conducted</p>	17 January 2020 (17.01.2020)
<p align="center">Search Logic:</p> <p>neuromonitoring electrode groups monitoring functionality type deployment location electrodes connectors unique identification (ID) code -181 Results</p> <p>neuromonitoring electrode groups functionality type deployment location electrodes connectors unique identification (ID) code control unit leads -175 Results</p> <p>neuro monitoring electrodes group lead functionality type deployment location connectors unique identification (ID) code control unit leads 128 bit GUID input sockets -170 Results</p> <p>neuromonitoring electrode monitoring functionality type deployment location electrodes connectors unique identification (ID) code control leads production date authentication data -37 Results</p> <p>neuro monitoring group electrode functionality type deployment location connectors unique identification (ID) code control leads bar radio frequency code (RFID) -228 Results</p> <p>neuromonitoring electrode monitoring functionality type deployment location connectors unique identification code control leads dip switch resistor -118 Results</p> <p>neuromonitoring electrodes monitoring functionality type deployment location connectors unique identification code control leads different distinct orientations -99 Results</p> <p>neuromonitoring electrodes monitoring functionality type deployment location connectors unique identification code control leads polarities voltage levels -103 Results</p> <p>neuromonitoring electrodes monitoring functionality type deployment location connectors unique identification code control leads rigid connector plate -69 Results</p> <p>neuromonitoring electrodes monitoring functionality type deployment location connectors unique identification code control leads rigid connector plate surface -70 Results</p> <p>neuromonitoring electrodes function location connectors "unique identification code" group leads sterile cycles frequencies -155 Results</p>	

<p>Electronic Database Searched</p>	Google Patents
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Files Searched	Full-text: AU BE BR CA CH CN DE DK EP ES FI FR GB IN JP KR SE TH TW US WO Bibliographic: (Europe) AT BA BE BG CH CS CY CZ DD DK EE ES FI GE GR HR HU IE IS IT LT LU LV MC MD MT NL NO PL PT RO RS SE SI SK SM TR UA YU (Asia) EA GC HK ID IL IN KZ MN MY PH RU SG SU TH TJ TW UZ VN (North America) CA CR CU DO GT HN MX NI PA SV TT (South America) AR BR CL CO EC PE UY (Australasia) AU NZ (Africa) AP DZ EG KE MA MW OA ZA ZM ZW
Date Conducted	17 January 2020 (17.01.2020)
<p style="text-align: center;">Search Logic:</p> <p>neuro electrode groups monitoring functionality type deployment location electrodes connectors "unique identification code" -302 Results</p> <p>neuro monitoring electrode groups functionality type deployment location electrodes connectors "unique identification code" control unit "leads" -309 Results</p> <p>neuromonitoring electrodes group lead functionality type deployment location connectors unique identification (ID) code control unit leads 128 bit GUID input sockets -113 Results</p> <p>neuromonitoring electrode monitoring functionality type deployment location electrodes connectors unique identification (ID) code control leads production date authentication data -104 Results</p> <p>neuromonitoring electrode monitoring functionality type deployment location electrodes connectors unique identification (ID) code control group leads bar radio frequency code (RFID) -60 Results</p> <p>neuromonitoring electrode monitoring functionality type deployment location electrodes connectors unique identification code control leads dip switch resistor -222 Results</p> <p>neuromonitoring electrodes monitoring functionality type deployment location electrodes connectors unique identification code control leads different distinct orientations -119 Results</p> <p>neuromonitoring electrodes monitoring functionality type deployment location electrodes connectors unique identification code control leads polarities voltage levels -138 Results</p> <p>neuromonitoring electrodes monitoring functionality type deployment location electrodes connectors unique identification code control leads rigid connector plate -51 Results</p> <p>neuromonitoring electrodes monitoring functionality type deployment location electrodes connectors unique identification code control leads rigid connector plate surface -52 Results</p> <p>neuromonitoring electrodes monitor track functionality type deployment location connectors unique identification code sterile cycles frequencies -215 Results</p> <p>SAO Supplemental Search:</p> <p>About 4,060 results (0.30 seconds) neuromonitoring</p>	

About 1,520 results (0.26 seconds) neuromonitoring electrode group

About 2,870 results (0.31 seconds) neuromonitoring electrode group connector

About 202,000 results (0.29 seconds) neuromonitoring electrode group connector leads

About 58,200 results (0.35 seconds) neuromonitoring electrode group connector leads unique identification OR code

Electronic Database Searched	PatBase
Files Searched	Full-text: AU BE BR CA CH CN DE DK EP ES FI FR GB IN JP KR SE TH TW US WO Bibliographic: (Europe) AT BA BE BG CH CS CY CZ DD DK EE ES FI ĞE GR HR HU IE IS IT LT LU LV MC MD MT NL NO PL PT RO RS SE SI SK SM TR UA YU (Asia) EA GC HK ID IL IN KZ MN MY PH RU SG SU TH TJ TW UZ VN (North America) CA CR CU DO GT HN MX NI PA SV TT (South America) AR BR CL CO EC PE UY (Australasia) AU NZ (Africa) AP DZ EG KE MA MW OA ZA ZM ZW
Date Conducted	17 January 2020 (17.01.2020)
Search Logic:	
<p>Classification-based searching: Search 1: IC=(H01R4/48) (Results 15997) Search 2: UC=(439/729 OR 439/909) (Results 491) Search 3: CPC=(H01R13/6277 OR H01R13/639 OR H01R13/62933 OR A61B5/04 OR A61B5/04286) (Results 10130) Search 4: 1 OR 2 OR 3 (Results 26391) Search 5: 4 AND FT=((neuro* or brain* or (EKG) or electrocardiograph* or electroencephalography or (EEG) or electromyography or(EMG)) near5 (monitor* or track*)) (Results 1898) Search 6: 5 AND FT=(electrode* and connector*) (Results 511) Search 7: 6 AND FT=(function* and (location* or position* or area* or region*)) (Results 389) Search 8: 7 AND FT=("unique identification code*" OR (ID)) (Results 84) Search 9: 8 AND FT=("group* lead*" or lead*) (Results 78) Search 10: 7 AND FT=(socket*) (Results 102) Search 11: 10 AND FT=("production date" or authenticat*) (Results 11) Search 12: 11 AND FT=((bar or (QR) or "quick response*" or "radio frequency code" or (RFID)) near4 code*) (Results 7) Search 13: 8 AND FT=(output pin*) (Results 2) Search 14: 8 AND FT=("rigid connector plate*" or plate*) (Results 47) Search 15: 14 AND SP=((open* or insert*) near7 surface*) (Results 45) Search 16: 8 AND FT=((3D or 3-D or three-dimension*) near5 (image* or frame* or pic# or photo#)) (Results 44)</p>	

Search 17: 16 AND FT=(pixel* near5 (position* or location*)) (Results 43)
 Search 18: 17 AND SP=(electrode*) (Results 43)
 Search 19: 18 AND FT=("graphical user interface*" or (GUI)) near5 electrode*) (Results 10)
 Search 20: 7 AND FT=(light* near7 (lead* or connector* or electrode*)) (Results 389)
 Search 21: 20 AND FT=(electroencephalograph* or electrocardiogram* or electromyograph* or polysomnography* or intraoperat* neur*I monitor* procedure***) (Results 180)

Keyword only searching:

Search 22: FT=((neuro* or brain* or (EKG) or electrocardiograph* or electroencephalography or (EEG) or electromyography or(EMG)) near5 (monitor* or track*)) (Results 1000000)
 Search 23: 22 AND FT=(electrode* and connector*) (Results 34035)
 Search 24: 23 AND FT=(function* and (location* or position* or area* or region*)) (Results 29569)
 Search 25: 24 AND FT=("unique identification code*" OR (ID)) (Results 6334)
 Search 26: 25 AND FT=("group* lead*" or lead*) (Results 5290)
 Search 27: 26 AND FT=(socket*) (Results 1256)
 Search 28: 27 AND FT=("production date" or authenticat*) (Results 400)
 Search 29: 28 AND FT=((bar or (QR) or "quick response*" or "radio frequency code" or (RFID)) near4 code*) (Results 349)
 Search 30: 29 AND FT=(output pin*) (Results 108)
 Search 31: 30 AND FT=("rigid connector plate*" or plate*) (Results 106)
 Search 32: 31 AND SP=((open* or insert*) near7 surface*) (Results 106)
 Search 33: 32 AND FT=((3D or 3-D or three-dimension*) near5 (image* or frame* or pic# or photo#)) (Results 106)
 Search 34: 33 AND FT=(pixel* near5 (position* or location*)) (Results 106)
 Search 35: 34 AND SP=(electrode*) (Results 106)
 Search 36: 35 AND FT=("graphical user interface*" or (GUI)) near5 electrode*) (Results 100)
 Search 37: 36 AND FT=(light* near7 (lead* or connector* or electrode*)) (Results 100)
 Search 38: 25 AND FT=(electroencephalograph* or electrocardiogram* or electromyograph* or polysomnography* or intraoperat* neur*I monitor* procedure***) (Results 1081)

Forward/backward searching:

Search 39: PN=(US2018/0161123) (Results 1)
 Search 40: CTB 39 OR CTF 39 (Results 18)
 Search 41: 40 NOT 9 (Results 18)
 Search 42: 40 NOT 26 (Results 17)