

**Integer Patents Listing**  
The Integer commercially available products may be covered by one or more of the following patents:

| active medical implantable devices (AIMDs), medical or vascular devices or implants, recorders |                 |                 |
|------------------------------------------------------------------------------------------------|-----------------|-----------------|
| US 8224417                                                                                     | US 10252047     | DE 602013067018 |
| US 8332046                                                                                     | US 10384054     | DE 602013057031 |
| US 8571667                                                                                     | US 10487385     | DE 602013042668 |
| US 8761892                                                                                     | US 10493297     | DE 602014042196 |
| US 8870857                                                                                     | US 10603488     | DE 602017002673 |
| US 8954144                                                                                     | US 10709870     | DE 602017061156 |
| US 8958890                                                                                     | US10737085      | DE 602018078699 |
| US 8972026                                                                                     | US 10813744     | DE 602019060055 |
| US 8996115                                                                                     | US 10821290     | FR 2488098      |
| US 9008747                                                                                     | US 11065456     | FR 2520327      |
| US 9031664                                                                                     | US 11147963     | FR 2705877      |
| US 9031666                                                                                     | US 11179109     | FR 2927334      |
| US 9039963                                                                                     | US 11291376     | FR 3053627      |
| US 9101767                                                                                     | US 11364365     | FR 3272890      |
| US 9155861                                                                                     | US 11559676     | FR 3824793      |
| US 9248269                                                                                     | US 11751987     | GB 2488098      |
| US 9289151                                                                                     | US 12268887     | GB 2520327      |
| US 9427584                                                                                     | US 12343548     | GB 2705877      |
| US 9517333                                                                                     | US 12383751     | GB 2712654      |
| US 9610449                                                                                     | US 12390554     | GB 2927334      |
| US 9630231                                                                                     | US 12344566     | GB 3053627      |
| US 9636028                                                                                     | US 12357213     | GB 3272890      |
| US 9643027                                                                                     | US 12434064     | IE 2927334      |
| US 9656076                                                                                     | US 12485276     | IE 3272890      |
| US 9669217                                                                                     | US 12491340     | IE 3595589      |
| US 9669227                                                                                     | US 12508398     | IL 231795       |
| US 9687165                                                                                     | AT 2927334      | IL 253545       |
| US 9700736                                                                                     | AT 3272890      | IT 2927334      |
| US 9731116                                                                                     | AU 2014201877   | IT 3272890      |
| US 9844660                                                                                     | CA 2847938      | JP 6494172      |
| US 9901266                                                                                     | CA 2974147      | JP 6945370      |
| US 9907570                                                                                     | CH 2488098      | NL 2927334      |
| US 9981137                                                                                     | CH 2712654      | NL 3272890      |
| US 10034615                                                                                    | CH 2927334      | PL 2927334      |
| US 10052476                                                                                    | CH 3272890      | PL 3272890      |
| US 10080897                                                                                    | CN 201080046331 | SE 2927334      |
| US 10027157                                                                                    | CN 201080052821 | SE 3272890      |
| US 10173051                                                                                    | CZ 2927334      | SG 180374       |
| US 10118030                                                                                    | CZ 3272890      | SG 180699       |
| US 10213603                                                                                    | DE 602010014527 |                 |
| US 10238877                                                                                    | DE 602012016489 |                 |

| anchors, adaptors and extensions |             |                 |
|----------------------------------|-------------|-----------------|
|                                  | US 8886303  | US 12138466     |
| US 7553305                       | US 8886338  | US D582555      |
| US 8311643                       | US 8934991  | CA 2610586      |
| US 8437846                       | US 8958891  | DE 602009043896 |
| US 8483845                       | US 9026227  | DE 602010001401 |
| US 8515558                       | US 9034000  | DE 602010059424 |
| US 8540697                       | US 9259566  | DE 602012000838 |
| US 8676341                       | US 9814458  | FR 2275169      |
| US 8688232                       | US 10357650 | FR 2497528      |
| US 8849418                       | US 10182807 | GB 2497528      |

| catheters   |                 |                 |
|-------------|-----------------|-----------------|
| US 7497853  | US 11357451     | DE 602009003145 |
| US 7588555  | US 11357570     | DE 602009014584 |
| US 7615044  | US 11666280     | DE 602011033761 |
| US 7678074  | US 11717646     | DE 602018000204 |
| US 8308659  | US 11890432     | DE 602018078723 |
| US 8790362  | US 11931529     | FR 1726326      |
| US 9061120  | US 12178583     | FR 1885427      |
| US 9149607  | US 12290646     | FR 2015823      |
| US 9498602  | US D638934      | FR 2116272      |
| US 9913684  | US D653335      | FR 2135634      |
| US 10155125 | US D653337      | FR 2438954      |
| US 10260181 | DE 602006013814 | FR 3375478      |
| US 10292612 | DE 602006023629 | IE 3727554      |
| US 10821264 | DE 602007023950 |                 |

| coatings, lead electrode coatings and braided componets |                 |                 |
|---------------------------------------------------------|-----------------|-----------------|
| US 7627382                                              | US 10588999     | DE 602009035785 |
| US 7812691                                              | US 10675380     | DE 602010035753 |
| US 8512872                                              | US 11359156     | DE 602011066013 |
| US 8609254                                              | US 11421189     | DE 602012021396 |
| US 8765113                                              | US 11578286     | ES 2571684      |
| US 8948881                                              | US 12064566     | FR 1997930      |
| US 9039963                                              | US 1237560      | FR 2106812      |
| US 9260792                                              | US 12497695     | FR 2540325      |
| US 9623157                                              | BR 112012029385 | FR 2571684      |
| US 9714361                                              | CA 2699085      | IT 1997930      |
| US 10899944                                             | CN 102958691    | JP 6006200      |
| US 10214827                                             | CN 114845746    | JP 7621347      |
| US 10292790                                             | DE 602006037850 | KR 101871702    |
|                                                         | DE 602007021420 | UK 2571684      |

| electrochemical cells, batteries, capacitors, battery packs |             |                 |
|-------------------------------------------------------------|-------------|-----------------|
| US 6965510                                                  | US 10038220 | US 12021248     |
| US 6967829                                                  | US 10109844 | US 12119186     |
| US 7038901                                                  | US 10141545 | US 12214209     |
| US 7072171                                                  | US 10224518 | US 12469910     |
| US 7085126                                                  | US 10263240 | US D674747      |
| US 7092242                                                  | US 10403903 | US RE47560      |
| US 7116547                                                  | US 10629862 | US RE48439      |
| US 7252797                                                  | US 10770698 | CA 2572006      |
| US 7271994                                                  | US 10790482 | DE 602018031130 |
| US 7273674                                                  | US 10916740 | DE 602006012759 |
| US 7483260                                                  | US 10957884 | DE 602007015004 |
| US 7710713                                                  | US 11075377 | DE 602007023553 |
| US 7727372                                                  | US 11075388 | DE 602007032780 |
| US 7776470                                                  | US 11075421 | DE 602009014689 |
| US 7808772                                                  | US 11114661 | DE 602010001307 |
| US 7983022                                                  | US 11114714 | DE 602010017452 |
| US 8133614                                                  | US 11130197 | DE 602014010903 |
| US 8580439                                                  | US 11217397 | DE 602014019314 |
| US 8685568                                                  | US 11217397 | DE 602015077989 |
| US 8808892                                                  | US 11241184 | DE 602017010055 |
| US 8871379                                                  | US 11251480 | DE 602019002637 |
| US 8940443                                                  | US 11450486 | DE 602021003008 |
| US 9293741                                                  | US 11462363 | DE 60221771     |
| US 9312075                                                  | US 11509011 | FR 1800775      |
| US 9455448                                                  | US 11527795 | FR 1816692      |
| US 9721730                                                  | US 11581545 | FR 1818957      |
| US 9786920                                                  | US 11588171 | FR 2099042      |
| US 9824829                                                  | US 11670816 | FR 3319145      |
| US 9825333                                                  | US 11715868 | FR 3439077      |
| US 9875855                                                  | US 11735773 | FR 3509125      |
| US 9899655                                                  | US 11742520 | FR 3937297      |
| US 9978528                                                  | US 11799172 |                 |
| US 10020127                                                 | US 11938278 |                 |
|                                                             | US 11990648 |                 |

| filters, feedthroughs, filtered feedthroughs and assemblies |             |                 |
|-------------------------------------------------------------|-------------|-----------------|
| US 7136273                                                  | US 10092749 | US 12017065     |
| US 7145076                                                  | US 10099051 | US 12095102     |
| US 7199995                                                  | US 10124164 | US 12102831     |
| US 7551963                                                  | US 10249415 | US 12142775     |
| US 7623335                                                  | US 10272252 | US 12246183     |
| US 7797048                                                  | US 10272253 | US 12249726     |
| US 8195295                                                  | US 10283275 | US 12261309     |
| US 8422195                                                  | US 10350421 | US 12268889     |
| US 8433410                                                  | US 10420949 | US 12383750     |
| US 8468664                                                  | US 10443975 | US RE46699      |
| US 8855768                                                  | US 10500402 | US RE47624      |
| US 8868189                                                  | US 10559409 | US RE48348      |
| US 8938309                                                  | US 10561837 | DE 602006012759 |
| US 9008799                                                  | US 10587073 | DE 602009026822 |
| US 9014808                                                  | US 10589107 | DE 602009028638 |
| US 9031670                                                  | US 10596369 | DE 602009049503 |
| US 9064640                                                  | US 10722706 | DE 602012079407 |
| US 9233253                                                  | US 10857368 | DE 602013019912 |
| US 9251960                                                  | US 10857369 | DE 602013048318 |
| US 9352150                                                  | US 10874866 | DE 602013051283 |
| US 9427596                                                  | US 10881867 | DE 602013084519 |
| US 9463329                                                  | US 10912945 | DE 602017006932 |
| US 9492659                                                  | US 10967191 | DE 602017011902 |
| US 9511220                                                  | US 11011787 | DE 602017035037 |
| US 9692173                                                  | US 11013928 | DE 602017086917 |
| US 9757558                                                  | US 11071858 | DE 602017087830 |
| US 9764129                                                  | US 11241581 | DE 602018010491 |
| US 9889306                                                  | US 11344734 | DE 602018044417 |
| US 9895534                                                  | US 11351387 | FR 1191556      |
| US 9931514                                                  | US 11406817 | FR 3246929      |
| US 9993650                                                  | US 11541233 | FR 3299062      |
| US 10016595                                                 | US 11633612 | FR 3366348      |
| US 10016596                                                 | US 11648409 | FR 3449973      |
| US 10046166                                                 | US 11712571 | FR 3505215      |
| US 10080889                                                 | US 11980766 |                 |

| handles and trays |            |            |
|-------------------|------------|------------|
| US 10039897       | US D708740 | US D940306 |
| US D582555        | US D718437 | US D940307 |

| imaging, MRI conditional |            |                 |
|--------------------------|------------|-----------------|
| US 7844319               | US 8649857 | US 9254377      |
| US 7853324               | US 8670841 | US 9295828      |
| US 8224462               | US 8897887 | US 9827415      |
| US 8244370               | US 8903505 | DE 602011024831 |
| US 8301243               | US 8918189 | DE 602010067192 |
| US 8311628               | US 9042999 | DE 602010067277 |
| US 8463375               | US 9119968 |                 |

| chargers and charging |             |                 |
|-----------------------|-------------|-----------------|
| US 9142989            | US 9750930  | FR 4124358      |
| US 9209634            | US 10103559 | DE 602022003327 |
| US 9225190            |             |                 |

Integer Patents Listing

The Integer commercially available products may be covered by one or more of the following patents:

connectors, connections

|            |             |                 |
|------------|-------------|-----------------|
| US 7422487 | US 9427571  | US 12161873     |
| US 7585190 | US 10587073 | US 12218458     |
| US 8731670 | US 12144632 | US 12272899     |
| US 8670843 | US 12149021 | DE 602012037504 |

device headers

|            |             |                 |
|------------|-------------|-----------------|
| US 8369951 | US 9166321  | DE 602010030016 |
| US 8428724 | US 9314619  | DE 602012001455 |
| US 8494636 | US 9492666  | DE 602012005479 |
| US 8521290 | US 9931513  | DE 602012042072 |
| US 8527054 | US 10047782 | FR 2448629      |
| US 8738141 | US 11890432 | FR 2497527      |
| US 8934974 | US D663035  | FR 2517756      |
| US 9037243 | US D665086  | FR 2905050      |
| US 9065224 | US D665087  | GB 2448629      |
| US 9068587 |             | GB 2497527      |
| US 9138586 |             | GB 2517756      |
|            |             | GB 2905050      |

dilators, drivers, elevators, measuring probes, needles, retractors, tunneling

|             |                 |            |
|-------------|-----------------|------------|
| US 10244956 | DE 602012003381 | FR 2497434 |
| US 10413707 | DE 602013009509 | GB 2497434 |

guidewires, inserters and introducers

|            |                 |                 |
|------------|-----------------|-----------------|
| US 7151965 | US 9802026      | DE 602005050596 |
| US 7192433 | US 9844644      | DE 602008043016 |
| US 7544197 | US 9974930      | DE 602010027060 |
| US 7789839 | US 10052489     | DE 602010029060 |
| US 7909798 | US 10548489     | DE 602012073778 |
| US 7972307 | US 10933224     | DE 602013071159 |
| US 7993305 | US 11086073     | DE 602014073822 |
| US 8092395 | US 11278701     | DE 602015058948 |
| US 8101091 | US 11426560     | DE 602015062717 |
| US 8123726 | US 11464421     | DE 602017075618 |
| US 8540675 | US 11471652     | DE 602018000834 |
| US 8721659 | US 11553854     | DE 602019033400 |
| US 8753313 | US 11585706     | DE 602020005553 |
| US 8805468 | US 11717640     | FR 1781365      |
| US 8974420 | US 12121211     | FR 1977782      |
| US 9067056 | US 12201792     | FR 2480282      |
| US 9320888 | US 12491345     | FR 3212069      |
| US 9345854 | CA 2575055      | FR 3315160      |
| US 9387323 | CA 2575103      | FR 3398646      |
| US 9446219 | CA 2626618      | FR 3598938      |
| US 9517323 | CN 201080045698 | FR 3730179      |
| US 9572957 | DE 60329228     | JP 5139798      |
| US 9757542 | DE 602005025133 | JP 5886202      |

lids and enclosures

|             |                 |
|-------------|-----------------|
| US 7167749  |                 |
| US 7168142  | DE 602005048934 |
| US 9630231  | FR 1592031      |
| US 11331501 | FR 2043178      |

joining, forming, cutting, machining, electropolishing, printing, 3D printing

|             |                 |                 |
|-------------|-----------------|-----------------|
| US 9399262  | US 11878371     | DE 602012073450 |
| US 11355820 | US 12043915     | DE 602019041349 |
| US 11651873 | US 12094626     | DE 602022002665 |
| US 11813063 | DE 602012029697 | FR 3614462      |
|             |                 | FR 4108294      |

Anisotropic adhesive connection

|             |             |
|-------------|-------------|
| US 10905888 | US 12064639 |
|-------------|-------------|

RF Switch

|             |                 |            |
|-------------|-----------------|------------|
| US 10625084 | DE 602019005506 | FR 3900780 |
| US 10828498 | DE 602020008222 |            |

Magnet Mode

|             |             |
|-------------|-------------|
| US 11571580 | US 12102831 |
|-------------|-------------|

surgical tools, cutters, cutting fixtures, impactors, reamers, tunneling

|             |                 |            |
|-------------|-----------------|------------|
| US 9381030  | DE 602011061659 | FR 2564893 |
| US 9848949  | DE 602012049370 | GB 2564893 |
| US 10918394 | DE602013051705  | IE 3727490 |
| US 10918394 | DE 602018083259 |            |

implantable leads for pacing, percutaneous, temporary use, lead electrodes

|            |                 |                 |
|------------|-----------------|-----------------|
| US 7120504 | US 9117680      | DE 602008008872 |
| US 7197361 | US 9192757      | DE 602009013119 |
| US 7421295 | US 9234920      | DE 602010014372 |
| US 7467017 | US 9259570      | DE 602012002207 |
| US 7640064 | US 9259577      | DE 602012003395 |
| US 7702398 | US 9265928      | DE 602012042949 |
| US 7729781 | US 9289142      | DE 602013008149 |
| US 7844348 | US 9597492      | DE 602014019314 |
| US 7941202 | US 9656054      | DE 602014042681 |
| US 7957818 | US 9717900      | FR 1912700      |
| US 8090450 | US 9775984      | FR 1935449      |
| US 8160719 | US 9775985      | FR 2004280      |
| US 8224463 | US 9782587      | FR 2008686      |
| US 8241950 | US 9849278      | FR 2138203      |
| US 8244376 | US 9872988      | FR 2263741      |
| US 8386054 | US 10035012     | FR 2540339      |
| US 8473074 | US 10188857     | FR 2564892      |
| US 8498720 | US 10219715     | FR 2564896      |
| US 8543223 | US 10226617     | FR 2634588      |
| US 8548603 | US 10245434     | FR 2808053      |
| US 8554337 | US 10518083     | FR 2886155      |
| US 8560084 | US 10661077     | GB 2540339      |
| US 8565894 | US 10791945     | GB 2564892      |
| US 8634932 | US 11992673     | GB 2564896      |
| US 8644953 | US 12043915     | GB 2808053      |
| US 8649878 | US 12226628     | GB 2886155      |
| US 8658465 | AT 2808053      | IE 2808053      |
| US 8676346 | AT 2886155      | IE 2886155      |
| US 8676347 | AU 2014202893   | IL 232460       |
| US 8685040 | AU 2020202344   | IL 235503       |
| US 8703537 | AU 2021201430   | IL 246052       |
| US 8738153 | CA 2636733      | IT 2886155      |
| US 8781603 | CA 2850878      | JP 6494270      |
| US 8798768 | CA 2869873      | JP 6770833      |
| US 8800140 | CA 2932272      | JP 6941414      |
| US 8825177 | CH 2808053      | NL 2808053      |
| US 8868210 | CH 2886155      | NL 2886155      |
| US 8874235 | CN 101583309    | PL 2808053      |
| US 8941390 | CZ 2808053      | PL 2886155      |
| US 8942821 | CZ 2886155      | SE 2808053      |
| US 8958862 | DE 602006046881 | SE 2886155      |
| US 9071221 | DE 602007017947 | SG 193136       |
| US 9089693 | DE 602007037016 | IT 2808053      |
| US 9095700 |                 |                 |

programmers and software

|            |                 |                 |
|------------|-----------------|-----------------|
| US 8483836 | US 9744347      | DE 602012018878 |
| US 8549015 | US 9750946      | DE 602012062576 |
| US 8757485 | US 9764128      | DE 602013029019 |
| US 8761897 | US 9767255      | DE 602013026066 |
| US 8868199 | US 9776007      | DE 602013056724 |
| US 8874219 | US 9782587      | DE 602013062458 |
| US 8903496 | US 9827424      | DE 602016004695 |
| US 8954148 | US 9861822      | DE 602016008591 |
| US 8983616 | US 9931511      | FR 2508224      |
| US 8996117 | US 9943691      | FR 2508226      |
| US 9067074 | US 9974108      | FR 2529786      |
| US 9126043 | US 10052490     | FR 2548612      |
| US 9174048 | US 10076667     | FR 2567729      |
| US 9180302 | US 10083261     | FR 2567730      |
| US 9248292 | US 10118037     | FR 2567731      |
| US 9314640 | US 10124171     | FR 2567732      |
| US 9358390 | US 10141076     | FR 2703040      |
| US 9375567 | US 10159843     | FR 2705876      |
| US 9375574 | US 10279181     | FR 2706477      |
| US 9375582 | US 10347381     | FR 3103507      |
| US 9421386 | US 10376701     | FR 3103515      |
| US 9433790 | US 10456574     | GB 2508224      |
| US 9452294 | US 10463852     | GB 2508226      |
| US 9471753 | US 10668276     | GB 2529786      |
| US 9504830 | US 11666766     | GB 2548612      |
| US 9507912 | US D671900      | GB 2567729      |
| US 9555255 | US D698779      | GB 2567730      |
| US 9592385 | DE 602012053085 | GB 2567731      |
| US 9594877 | DE 602012036855 | GB 2567732      |
| US 9596224 | DE 602012040272 | GB 2703040      |
| US 9610449 | DE 602012045547 | GB 2705876      |
| US 9615788 | DE 602012045548 | GB 2706477      |
| US 9662503 | DE 602012040016 | GB 3103507      |
|            | DE 602012008738 | GB 3103515      |

wireless

|            |             |                 |
|------------|-------------|-----------------|
| US 8700175 | US 9084881  | DE 602012011723 |
| US 8781592 | US 9098610  | DE 602015026981 |
| US 8812125 | US 9144680  | DE 602016014742 |
| US 9002466 | US 9154219  | FR 2529789      |
| US 9072903 | US 11081274 | GB 2529789      |