
**Information technology — Radio
frequency identification for item
management —**

Part 6:

Parameters for air interface

communications at 860 MHz to 960 MHz

**AMENDMENT 1: Extension with Type C and
update of Types A and B**

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*Technologies de l'information — Identification par radiofréquence
(RFID) pour la gestion d'objets —*

*Partie 6: Paramètres de communications d'une interface d'air entre
860 MHz et 960 MHz*

*AMENDEMENT 1: Extension avec Type C et mise à jour
des Types A et B*

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to ISO/IEC 18000-6:2004 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

Amendment 1 to ISO/IEC 18000-6:2004 covers the extension of ISO/IEC 18000-6 to Type C, to accommodate the latest development of passive RFID technology in the UHF frequency band from 860 MHz to 960 MHz.

Furthermore, it covers changes in order to achieve an improved collision arbitration and a more robust protocol for Type A.

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Parameters for air interface communications at 860 MHz to 960 MHz

AMENDMENT 1: Extension with Type C and update of Types A and B

Page vii, Introduction

Replace the paragraph after the bulleted list with the following paragraphs:

This International Standard specifies the physical and logical requirements for a passive-backscatter, interrogator-talks-first (ITF), radio frequency identification (RFID) system operating in the 860 MHz to 960 MHz frequency range. The system comprises interrogators, also known as readers, and tags, also known as labels.

An interrogator transmits information to a tag by modulating an RF signal in the 860 MHz to 960 MHz frequency range. The tag receives both information and operating energy from this RF signal. Tags are passive, meaning that they receive all of their operating energy from the interrogator's RF waveform.

An interrogator receives information from a tag by transmitting a continuous-wave (CW) RF signal to the tag; the tag responds by modulating the reflection coefficient of its antenna, thereby backscattering an information signal to the interrogator. The system is ITF, meaning that a tag modulates its antenna reflection coefficient with an information signal only after being directed to do so by an interrogator.

Interrogators and tags are not required to talk simultaneously; rather, communications are half-duplex, meaning that interrogators talk and tags listen, or vice versa.

Page vii, Introduction

Add the following to the table of patent holders:

Contact details	Patent number	Affected clause(s) in this part of ISO/IEC 18000
Alien Technology Corporation ATTN: Dr. John Stephen Smith 18200 Butterfield Blvd Morgan Hill CA 95037 USA Tel: 1-408-782-3900 Fax: 1-408-782-3910 E-mail: ssmith@alientechnology.com	6,933,848 USA, 10/141,489 USA, 11/029,445 USA, 2003/0019929 USA, 10/160,458 USA, 11/132,085 USA, 11/153,030 USA, (divisional of 6,942,155 US), Not yet assigned, (continuation of 11/153,030 USA), 2005/0114326 USA, 10/982,557 USA, Not yet assigned, (continuation of 10/982,557 USA), Not yet assigned, (continuation of 10/982,557 USA), US04/036991 PCT, WO2005048180, 2003/0137403 USA, 10/267,924 USA, WO03032240, 2820082.9 China, 1636039A China, 2801064.3 EU, 2003- 535135 Japan, 091123291 Taiwan, 60/681,656 USA, 10/915,725 USA, US04/025883 PCT, 10/140,557 US,	9.3.2.1.1.1, 9.3.2.1.2.1, 9.3.2.4.7, 9.3.2.10.3.4, Fig. Amd.1-22, Fig. Amd.1-26, 9.3.2.1.1.1, 9.3.2.1.2.1, 9.3.2.4.7, 9.3.2.10.3.4, Fig. Amd.1-22, Fig. Amd.1-26, 9.3.2.7, 9.3.2.10.1.1, 9.3.2.10.2.4, Table Amd.1-28, 9.3.2.7, 9.3.2.10.1.1, 9.3.2.10.2.4, Table Amd.1-28, 9.3.2.1.1.1, 9.3.2.1.2.1, 9.3.2.2, 9.3.2.3, 9.3.2.4.7, 9.3.2.10.3.4, Table Amd.1-16, Fig. Amd.1-22, Fig. Amd.1-26, 9.3.2.1.1.1, 9.3.2.1.2.1, 9.3.2.2, 9.3.2.3, 9.3.2.4.7, 9.3.2.10.3.4, Table Amd.1-16, Fig. Amd.1-22, Fig. Amd.1-26, 9.3.2.2, 9.3.2.3, 9.3.2.4, 9.3.2.4.1, 9.3.2.4.2, 9.3.2.4.8, 9.3.2.5, 9.3.2.8, 9.3.2.9, 9.3.2.10, 9.3.2.10.1.1, 9.3.2.10.2.1, 9.3.2.10.2.2, 9.3.2.10.2.3, 9.3.2.10.2.4, Table Amd.1-18, Table Amd.1-19, Table Amd.1-20, Fig. Amd.1-21, Fig. Amd.1-22, 9.3.2.10, Table Amd.1-18, 9.3.2.9, Fig. Amd.1-22, 9.3.2.2, 9.3.2.3, 9.3.2.4, 9.3.2.4.1, 9.3.2.4.2, 9.3.2.4.8, 9.3.2.5, 9.3.2.8, 9.3.2.9, 9.3.2.10.1.1, 9.3.2.10.2.1, 9.3.2.10.2.2, 9.3.2.10.2.3, 9.3.2.10.2.4, Table Amd.1-18, Table Amd.1-19, Table Amd.1-20, Fig. Amd.1-21, Fig. Amd.1-22, 9.3.2.1.1.1, 9.3.2.1.2.1, 9.3.2.4.7, 9.3.2.10.1.1, 9.3.2.10.2.4, 9.3.2.10.3.4, 9.3.2.10.3.5, Table Amd.1-39, Fig. Amd.1-22, Fig. Amd.1-26, Fig. Amd.1-27, 9.3.2.1.1.1, 9.3.2.1.2.1, 9.3.2.4.7, 9.3.2.10.1.1, 9.3.2.10.2.4, 9.3.2.10.3.4, 9.3.2.10.3.5, Table Amd.1-39, Fig. Amd.1-22, Fig. Amd.1-26, Fig. Amd.1-27, 9.3.2.1.1.1, 9.3.2.1.2.1, 9.3.2.4.7, 9.3.2.10.1.1, 9.3.2.10.2.4, 9.3.2.10.3.4, 9.3.2.10.3.5, Table Amd.1-39, Fig. Amd.1-22, Fig. Amd.1-26, Fig. Amd.1-27, 9.3.2.1.1.1, 9.3.2.1.2.1, 9.3.2.4.7, 9.3.2.10.1.1, 9.3.2.10.2.4, 9.3.2.10.3.4, 9.3.2.10.3.5, Table Amd.1-39, Fig. Amd.1-22, Fig. Amd.1-26, Fig. Amd.1-27, 9.3.2.10.1.1, 9.3.2.10.2.4, 9.3.1.3.2.3, 9.3.1.3.3, Table Amd.1-12, Fig. Amd.1-15, Fig. Amd.1-16, 9.3.2.2, 9.3.2.3, 9.3.2.10, 9.3.2.10.1.1, Table Amd.1-18, Table Amd.1-19, Table Amd.1-20, Fig. Amd.1-21, 9.3.2.2, 9.3.2.3, 9.3.2.10, 9.3.2.10.1.1, Table Amd.1-18, Table Amd.1-19, Table Amd.1-20, Fig. Amd.1-21, 9.3.2.1

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	<p>SOUTH AFRICA 2001/4921; CHINA 01129277.6; EUROPE 01305265.9; JAPAN 184904/2001; UNITED STATES OF AMERICA 09/881741; SOUTH AFRICA 2001/4922; CHINA 01145439.3; EUROPE 01310061.5; JAPAN 366552/2001; UNITED STATES OF AMERICA 09/996937; SOUTH AFRICA 2001/9960; EUROPE 02782413.5; SOUTH AFRICA 2004/4464; CHINA ; EUROPE ; JAPAN ; UNITED STATES OF AMERICA ; SOUTH AFRICA 2005/07600</p> <p>CHINA 1123139; UNITED STATES OF AMERICA 6054925; SOUTH AFRICA 987635; UNITED STATES OF AMERICA 6367697; SOUTH AFRICA 987838; CHINA ZL981195994.6; UNITED STATES OF AMERICA 6198381; SOUTH AFRICA 988956; CHINA 99111121.4; UNITED STATES OF AMERICA 6724895; SOUTH AFRICA 994046; AUSTRIA 1001366; BELGIUM 1001366; SWITZERLAND 1001366; GERMANY 69923645.2; EUROPE 1001366; SPAIN 1001366; FRANCE 1001366; ITALY 1001366; NETHERLANDS 1001366; UNITED STATES OF AMERICA 6480143; UNITED STATES OF AMERICA 6346922; SOUTH AFRICA 2000/0668; UNITED STATES OF AMERICA 6388630; SOUTH AFRICA 2000/3699; UNITED STATES OF AMERICA 6867687; SOUTH AFRICA 2001/4484; SOUTH AFRICA 2001/4921; UNITED STATES OF AMERICA 6891466 ; SOUTH AFRICA 2001/4922; CHINA ZL01145439.3; UNITED STATES OF AMERICA 6870460; SOUTH AFRICA 2001/9960</p>	
<p>Impinj, Inc. ATTN: Todd E. Humes, CTO ATTN: Gregory T. Kavounas Sr. P.C. Impinj Patent Licensing Department 701 N. 34th Street, Suite 300 Seattle, WA 98103 USA Tel: +1(206)517-5300 Fax: +1(206)517-5262 Email: todd.humes@impinj.com / greg.kavounas@impinj.com</p>	<p>[USA S/N 10 / 915,930]; [PCT / US 2005/ 028180]; [USA S/N 10 / 890,662]; [EP S/N 5103959.2]; [USA S/N 10 / 824,049]; [PCT / US 2004/ 037668]; [USA S/N 10 / 967,996]; [USA S/N 10 / 985,518]; [PCT / US 2004/ 037387]; [USA S/N 11 / 031,459]; [USA S/N 11 / 031,471]; [USA S/N 11 / 033,028]</p>	<p>9.3.1.2.3; Figure Amd. 1-4; 9.3.1.2.8; Figure Amd. 1-7; Annex J; 9.3.1.3 and subsections (especially 9.3.1.3.2 and 9.3.1.3.3); 9.3.2.10.2.1; 9.3.1.2.8; Figure Amd. 1-7; 9.3.1.3.2.2; Figure Amd. 1-14; Annex J; 9.3.1.3 and subsections (especially 9.3.1.3.2 and 9.3.1.3.3); 9.3.2.10.2.1; 9.3.1.2.8; Figure Amd. 1-7; Annex D; Table D.1; 9.3.2.1; 9.3.2.10.1.1; Table Amd.1-19; 9.3.2.10.3.2; Table Amd. 1-32; 9.3.2.10.3.3; Table Amd. 1-34; 9.3.2.10.3.7; Table Amd. 1-44; 9.3.2.10.3.8; Table Amd. 1-46; 9.3.2.10; Table Amd. 1-18; plus all uses of the header "Code" specified in Table Amd. 1-18 throughout the specification; 2.3, 4.1.5 ("cover-coding"); 9.3.2.5; 9.3.2.9; 9.3.2.10.3.3; Table Amd. 1-34; 9.3.2.10.3.4; Table Amd. 1-36; Figure Amd.1-26; 9.3.2.10.3.6; Table Amd. 1-42; Figure Amd. 1-28</p>

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		<p>9.3.2.10.3.3 Write (mandatory) 9.3.2.10.3.4 Kill (mandatory) 9.3.2.10.3.5 Lock (mandatory) 9.3.2.10.3.7 BlockWrite (optional) 9.3.2.10.3.8 BlockErase (optional) F.10 Command response: Write F.11 Command response: Kill F.12 Command response: Lock F.14 Command response: BlockWrite F.15 Command response: BlockErase</p> <p>Type C 9.1.1 Physical layer Table 3 — Tag-to-interrogator (T=>R) communications: Tag:7e Subcarrier Frequency Tag:7g Subcarrier Modulation Tag:7h Duty Cycle Tag:8 Data Coding Tag:9 Bit Rate 9.3.1.3 Tag-to-interrogator (T=>R) communications 9.3.1.3.2 Data encoding 9.3.1.3.2.3 Miller-modulated subcarrier Figure Amd.1-16 — Subcarrier sequences 9.3.1.3.2.4 Miller subcarrier preamble 9.3.1.3.3 Tag supported Tari values and backscatter link rates Table Amd.1-11 — Tag-to-interrogator link frequencies Annex 1 Dense- and multiple-interrogator channelised signaling</p> <p>Types A, B, C Table 2 — Interrogator-to-tag (R=>T) communications: Int:1d Frequency Hop Rate (frequency-hopping [FHSS] systems) Int:1e Frequency Hop Sequence (frequency-hopping [FHSS] systems) Table 3 — Tag-to-interrogator (T=>R) communications: Tag:1d Frequency Hop Rate (frequency-hopping [FHSS] systems) Tag:1e Frequency Hop Sequence (frequency-hopping [FHSS] systems)</p> <p>Types A, B 6.4 Frequency hopping carrier rise and fall times</p> <p>Type C 9.3.1.2.9 Frequency-hopping spread-spectrum waveform 9.3.1.2.10 Frequency-hopping spread-spectrum channelisation Annex 1 Dense- and multiple-interrogator channelised signaling Bibliography: ETSI EN 300 220 ETSI EN 302 208-1</p>
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		<p>ETSI EN 302 208-2 US Code of Federal Regulations (CFR) Title 47, Chapter I, Part 15</p> <p>Types A, B, C Table 2 — Interrogator-to-tag (R=>T) communications: Int:1d Frequency Hop Rate (frequency-hopping [FHSS] systems) Int:1e Frequency Hop Sequence (frequency-hopping [FHSS] systems) Table 3 — Tag-to-interrogator (T=>R) communications: Tag:1d Frequency Hop Rate (frequency-hopping [FHSS] systems) Tag:1e Frequency Hop Sequence (frequency-hopping [FHSS] systems)</p> <p>Types A, B 6.4 Frequency hopping carrier rise and fall times</p> <p>Type C 9.3.1.2.9 Frequency-hopping spread-spectrum waveform 9.3.1.2.10 Frequency-hopping spread-spectrum channelisation Annex I Dense- and multiple-interrogator channelised signaling Bibliography: ETSI EN 300 220 ETSI EN 302 208-1 ETSI EN 302 208-2 US Code of Federal Regulations (CFR) Title 47, Chapter I, Part 15</p> <p>Type A, B 6.5.5 Message Format 6.5.6 Return preamble</p> <p>Type C 9.3.1.3.3 Tag supported Tari values and backscatter link rates</p> <p>Type C 9.1.1 Physical layer Table 3: Tag:7e Subcarrier Frequency Tag:7g Subcarrier Modulation Tag:7h Duty Cycle Tag:8 Data Coding Tag:9 Bit Rate 9.3.1.3 Tag-to-interrogator (T=>R) communications 9.3.1.3.2 Data encoding 9.3.1.3.2.3 Miller-modulated subcarrier Figure Amd.1-16 — Subcarrier sequences 9.3.1.3.2.4 Miller subcarrier preamble 9.3.1.3.3 Tag supported Tari values and backscatter link rates Table Amd.1-11 — Tag-to-interrogator link frequencies Annex I Dense- and multiple-</p>
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		<p>interrogator channelised signaling CLAIMS 11-et seq</p> <p>Types A, B, C Table 2: Int:1d Frequency Hop Rate (frequency-hopping [FHSS] systems) Int:1e Frequency Hop Sequence (frequency-hopping [FHSS] systems) Table 3: Tag:1d Frequency Hop Rate (frequency-hopping [FHSS] systems) Tag:1e Frequency Hop Sequence (frequency-hopping [FHSS] systems)</p> <p>Types A, B 6.4 Frequency hopping carrier rise and fall times</p> <p>Type C 9.3.1.2.9 Frequency-hopping spread- spectrum waveform 9.3.1.2.10 Frequency-hopping spread-spectrum channelisation Annex I Dense- and multiple- interrogator channelised signaling</p> <p>Bibliography: ETSI EN 300 220 ETSI EN 302 208-1 ETSI EN 302 208-2 US Code of Federal Regulations (CFR) Title 47, Chapter I, Part 15</p> <p>Type A 7.8.9 Write single block 7.8.10 Write multiple blocks 7.8.11 Lock single block 7.8.12 Write AFI 7.8.13 Lock AFI 7.8.14 Write DSFID command 7.8.15 Lock DSFID</p> <p>Type B 8.2.1.3.3 WRITE_OK 8.2.7.9.11 WRITE 8.2.7.9.12 WRITE4BYTE 8.2.7.9.13 LOCK 8.2.7.9.14 QUERY_LOCK 8.2.7.9.15 WRITE_MULTIPLE 8.2.7.9.16 WRITE4BYTE_MULTIPLE</p> <p>Type C 9.3.2.10.3.3 Write (mandatory) 9.3.2.10.3.4 Kill (mandatory) 9.3.2.10.3.5 Lock (mandatory) 9.3.2.10.3.7 BlockWrite (optional) 9.3.2.10.3.8 BlockErase (optional) Annex E State-transition tables</p> <p>Type A Tag state storage</p> <p>Type B 8.2.1.3.2 Data exchange status bit (DE_SB)</p>
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		<p>Type C persistent memory or persistent flag</p> <p>9.3.2.2 Sessions and inventoried flags</p> <p>9.3.2.3 Selected flag</p> <p>9.3.2.7 Selecting tag populations</p> <p>9.3.2.8 Inventorying tag populations</p> <p>9.3.2.10.1.1 Select (mandatory)</p> <p>9.3.2.10.2.1 Query (mandatory)</p> <p>9.3.2.10.2.2 QueryAdjust (mandatory)</p> <p>9.3.2.10.2.3 QueryRep (mandatory)</p> <p>Annex E State-transition tables</p> <p>Annex F Command-Response Tables</p>
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<p>Koninklijke Philips Electronics N.V. ATTN: Harald Röggla Triester Strasse 64 1101 Vienna Austria Tel: 43(1)60101 1469 Fax: +43(1)60101 1101 Email: harald.roeggla@philips.com</p>	<p>AT 401 127/ AT;EP 0 669 591 / BE, CH, De, DK, ES, FR, GB, IT, LI, NL, SE;EP 1 038 257 /AT, DE, ES, FR, GB, IT;IN /PCT/00/00034 / IN;US10/382262;JP00-561579 / JP;</p>	<p>2.5.1</p>
<p>Symbol Technologies, Inc. ATTN: Aaron Bernstein, VP of IP, Legal Department One Symbol Plaza, MS A6 Holtsville, NY 11742 USA Tel: 1-800-927-9626 Fax 1-631-738-4110 E-mail aaron.bernstein@symbol.com</p>	<p>6,784,813 (USA); 10/926,269 (USA); 10/932,279 (USA); 761843 (AU); 2,310,623 (CA); 98812462.9 (CN); 1031120 (DE); 1031120 (EP); 1320062 (EP); 1031120 (FR); 1031120 (GB); 1032468 (HK); 136,220 (IL); 1031120 (IT); 2000-521687 (JP); 10/688,535 (USA); 2003282941 (AU); TBA (CN); TBA (EP); TBA (JP); TBA (KR); 10/725,010 (USA); 10/073,000 (USA); 10/072,885 (USA); 10/693,687 (USA); 2003286702 (AU); TBA (CA); TBA (CN); 03777912.1 (EP); TBA (JP); 10- 2005-7007116 (KR); TBA (SG); 10/927,775 (USA); US04/027999(WO); 2,503,407 (CA); TBA (EP); TBA (JP); 0480001172.5 (CN); 1020057007371 (KR); 2004269728 (AU)</p>	<p>Type C</p>

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<p>Texas Instruments Incorporated ATTN: Mrs. Scharlene Franks Contract Manager, RFID Business Group 6550 Chase Oaks Boulevard, MS 8470 Plano, Texas 75023 USA Tel: +1(214) 567-8830 Fax: +1(214) 567-2409 Email: s-franks@ti.com</p>	<p>NONE</p>	<p>Not applicable</p>
<p>Zebra Technologies Corporation ATTN: Eric McAlpine IP Counsel Legal Dept. 333 Corporate Woods Parkway Vernon Hills, IL 60061 USA Phone: 1.847.793.5640 Fax: 1.847.955.4514 E-mail: emcalpine@zebra.com</p>	<p>92/10006 AUSTRALIA; BW/A/97/00142 BOTSWANA; 2058692 CANADA; 02017523.8 EPC; 95112753.9 EPC (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, PT, SE); 92300041.8 EPC (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, PT, SE); 91/346821 JAPAN; 9609578-1 SINGAPORE; 92/0039 SOUTH AFRICA; 08/976949 USA; 07/816893 USA; 08/976948 USA; 326618 ARGENTINA; 93/50781 AUSTRALIA; BW/A/97/00141 BOTSWANA; PI9304761-4 BRAZIL; 2006 2103288 CANADA; 93121410 CHINA; 01117486.9 EPC; 97104997.8 EPC (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, NL, PT, SE); 97104998.6 EPC (AT, BE, CH, DK, DE, ES, FR, GB, GR, IE, IT, NL, PT, SE); 93309232.2 EPC (AT, BE, CH, ES, FR, GB, GR, IE, IT, NL, PT, SE); 0598624UKREG GUERNSEY; 98109976.2 HONG KONG; 93/01312 INDIA; 107636 ISRAEL; 47219/03 JAPAN; 93/289591 JAPAN; 0598624UKREG JERSEY; 93/02408 MALAYSIA; 9307214 MEXICO; 250219 NEW ZEALAND; 314270 NEW ZEALAND; 314269 NEW ZEALAND; 19934177 NORWAY; 19993092 NORWAY; 19993091 NORWAY; 93051222 RUSSIAN FEDERATION; 9609092-3 SINGAPORE; 93/8624 SOUTH AFRICA; 93/024833 SOUTH KOREA; 82109793 TAIWAN; 93003717 UKRAINE; 08/154329 USA; 08/580913 USA; 95/16530 AUSTRALIA; 93/44940 AUSTRALIA; BW/A/97/00144 BOTSWANA; 2104829 CANADA; 93118806 CHINA; 93306790.2 EPC (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MN, NL, PT, SE); 93/00956 INDIA; 108621 ISRAEL; 93/211454 JAPAN; 93049090 RUSSIAN FEDERATION; 9608519-6</p>	<p>???</p>

	<p>SINGAPORE; 93/6267 SOUTH AFRICA; 94/03632 SOUTH KOREA; 83101248 TAIWAN; 93003224 UKRAINE; 08/665363 USA; 08/111430 USA; 99/10433 AUSTRALIA; 2310241 CANADA; 02021446.6 EPC; 05017862.3 EPC; 98952886.4 EPC (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MN, NL, PT, SE); 2000-521391 JAPAN; 504144 NEW ZEALAND; 98/10356 SOUTH AFRICA; 09/570951 USA; 98/74401 AUSTRALIA; PI9808714-2 BRAZIL; 2289207 CANADA; 98805116.8 CHINA; 04012409.1 EPC; 98921613.0 EPC (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, NL, SE); 02024117.0 EPC (BE, DE, DK, ES, FI, FR, GB, IE, IT, NL, SE); 132297 ISRAEL; 98/548931 JAPAN; 9910381 MEXICO; 337966 NEW ZEALAND; 99126440 RUSSIAN FEDERATION; 9904942-1 SINGAPORE; 98/10257 SOUTH AFRICA; 1999-7010475 SOUTH KOREA; 10/635683 USA; 09/415234 USA; PCT/GB04/004505 PCT; PCT/GB05/000110 PCT; 0400968.4 UNITED KINGDOM; PCT/GB05/000345 PCT; 0402667.0 UNITED KINGDOM; 2,148,145 CANADA; 08/430825 USA</p> <p>BOTSWANA BW/P03/00031; MALAYSIA MY-109809-A; 1:2006</p> <p>BOTSWANA BW/P/03/00033; TAIWAN NI-84612; TAIWAN NI-67003; SOUTH AFRICA 98/10356; SOUTH AFRICA 98/10257; SOUTH AFRICA 93/8624; SOUTH AFRICA 93/6267; SOUTH AFRICA 92/0039; JERSEY 622; UKRAINE 37182; UKRAINE 44215; SINGAPORE 48262; SINGAPORE 48423; SINGAPORE 55818; SINGAPORE 68358; ISRAEL 107636; ISRAEL 108621; ISRAEL 132297; MEXICO 186161; INDIA 187341; INDIA 188258; NEW ZEALAND 250219; ARGENTINA 250637; NORWAY 307590; SOUTH KOREA 309651; NORWAY 310261; NORWAY 310262; NEW ZEALAND 314269; NEW ZEALAND 314270; SOUTH KOREA 316754; NEW ZEALAND 337966; EPC (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, PT, SE) 0494114; NEW ZEALAND 504144; EPC (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MN, NL, PT, SE) 0585132; EPC (AT, BE, CH, ES, FR, GB, GR, IE, IT, NL, PT, SE) 0598624; GUERNSEY 0598624UKREG; AUSTRALIA 656088; AUSTRALIA 658857; AUSTRALIA 670402; AUSTRALIA 676853; EPC (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, PT, SE) 0685825; AUSTRALIA</p>	
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