

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6678596

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	05/27/2020
RECEIVING PARTY DATA		
Name:	VIVO MOBILE COMMUNICATION CO., LTD.	
Street Address:	#283, BBK ROAD, WUSHA	
City:	CHANG'AN DONGGUAN, GUANGDONG	
State/Country:	CHINA	
Postal Code:	523860	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Patent Number:	9407534
CORRESPONDENCE DATA		
Fax Number:	(312)977-9959	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
Phone:	3129779902	
Email:	cramirez@vonbriesen.com	
Correspondent Name:	VON BRIESEN & ROPER, S.C.	
Address Line 1:	ONE NORTH FRANKLIN STREET	
Address Line 2:	SUITE 2350	
Address Line 4:	CHICAGO, ILLINOIS 60606	
ATTORNEY DOCKET NUMBER:	60193/OIUS2020906CN(ZA)	
NAME OF SUBMITTER:	THOMAS A. MILLER	
SIGNATURE:	/Thomas A. Miller/	
DATE SIGNED:	04/27/2021	
Total Attachments: 8		
source=2021-04-27_Assignment_OIUS2020906CN(ZA)#page1.tif		
source=2021-04-27_Assignment_OIUS2020906CN(ZA)#page2.tif		
source=2021-04-27_Assignment_OIUS2020906CN(ZA)#page3.tif		
source=2021-04-27_Assignment_OIUS2020906CN(ZA)#page4.tif		
source=2021-04-27_Assignment_OIUS2020906CN(ZA)#page5.tif		

source=2021-04-27_Assignment_OIUS2020906CN(ZA)#page6.tif

source=2021-04-27_Assignment_OIUS2020906CN(ZA)#page7.tif

source=2021-04-27_Assignment_OIUS2020906CN(ZA)#page8.tif

PATENT

REEL: 056054 FRAME: 0204

PATENT ASSIGNMENT AGREEMENT

This PATENT ASSIGNMENT AGREEMENT (this "**Agreement**") is entered into as of May 27, 2020 (the "**Effective Date**") by and between:

TELEFONAKTIEBOLAGET LM ERICSSON (PUBL), reg. no. 556016-0680, a limited liability company incorporated under the laws of Sweden, and having its registered office at SE-164 83 Stockholm, Sweden (the "**Assignor**"); and

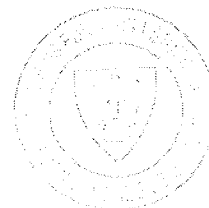
VIVO MOBILE COMMUNICATION CO., LTD., a company duly established under the laws of People's Republic of China, with registration number [number], having its registered office at , #283, BBK Road, Wusha, Chang'An, Donguan City, Guangdong Province, People's Republic of China ("**Assignee**").

WITNESSETH:

WHEREAS, Assignor has agreed to transfer its rights, title and interest in and to the Assigned Patents (as defined below) to Assignee.

NOW, THEREFORE, in consideration of the foregoing and the mutual promises and agreements contained in this Agreement, and for other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Assignment. Assignor hereby sells, transfers, assigns and conveys to Assignee all of its right, title, and interest throughout the world (under any and all laws and in any and all jurisdictions) in and to all of the patents, patent applications and provisional patent applications set forth on Schedule A attached hereto (collectively, the "**Assigned Patents**"), in each case, subject to all existing encumbrances. Pursuant to the foregoing assignment, each of the Assigned Patents shall hereafter be for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors and assigns, as fully and entirely as the same would have been held and enjoyed by the applicable Assignor if this Agreement had not been made. The foregoing assignment includes, without limitation, the rights of Assignor, if any, to (A) register or apply in all countries and regions for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for the Assigned Patents; (B) prosecute, maintain and defend the Assigned Patents before any public or private agency, office or registrar including by filing reissues, re-examinations, divisions, continuations, continuations-in-part, substitutes, extensions and all other applications and post issue proceedings included in the Assigned Patents; (C) claim priority based on the filing dates of any of the Assigned Patents under the



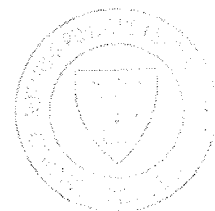
International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, the Paris Convention, and all other treaties of like purposes; and (D) sue and recover damages or other compensation for past, present or future infringements thereof, the right to sue and obtain equitable relief, including injunctive relief, in respect of such infringements, and the right to fully and entirely stand in the place of the applicable Assignor in all matters related to the Assigned Patents.

2. Authorization. Assignor also hereby expressly authorizes the respective patent office or governmental agency in each and every jurisdiction worldwide (including the Commissioner of Patents and Trademarks in the United States Patent and Trademark Office, and the corresponding entities or agencies in any applicable foreign countries or multinational authorities) (the "**Applicable IP Offices**") to: (A) issue any and all patents or certificates of invention or equivalent which may be granted upon any of the Assigned Patents in the name of Assignee, as the assignee to the Assignor's interest therein; and (B) record Assignee as the assignee of the Assigned Patents and to deliver to Assignee, and to Assignee's attorneys, agents, successors or assigns, all official documents and communications as may be warranted by this Agreement.

3. Further Assurances. Each party hereby agrees to execute and deliver to the other party all necessary documents and take all necessary actions reasonably requested by such party from time to time to confirm or effect the assignments set forth in this Agreement, or otherwise to carry out the purposes of this Agreement, including, without limitation, by providing executed originals of short-form assignment agreements entered into by Assignor and Assignee on the Effective Date for filing or otherwise evidencing the assignments set forth in this Agreement with the Applicable IP Offices; provided, however, that nothing contained herein shall obligate Assignor to incur any cost or pay any expense in connection therewith.

4. Governing Law. This Agreement shall be governed by the laws of Singapore.

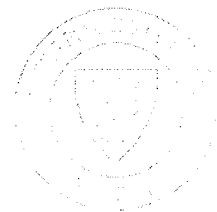
5. General Provisions. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which together shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or electronic mail shall be as effective as delivery of a manually executed counterpart of this Agreement. This Agreement may not be supplemented, altered, or modified in any manner except by a writing signed by all parties hereto. This Agreement shall not be construed as amending or superseding any written agreement entered into by the parties prior to or contemporaneous with this Agreement relating to the subject matter hereof. The failure of any party to enforce any terms or provisions of this Agreement shall not waive any of its rights under such terms or provisions.



PATENT

REEL: 056054 FRAME: 0206

[Remainder of this page intentionally left blank]



IN WITNESS WHEREOF, Assignor and Assignee have caused this instrument to be executed by their respective duly authorized representative as of the Effective Date.

TELEFONAKTIEBOLAGET L M
ERICSSON (PUBL)

VIVO MOBILE COMMUNICATIONS
CO., LTD

By: [Signature]
Signature

By: Xianwen Xu
Signature

Jonas Stringberg

Xianwen Xu
Printed Signatory's Name

Head of Financial Control & Bus Services

Head of VP
Title

By: [Signature]

By: _____
Signature

Lars Molander

Printed Signatory's Name

Head of Group Taxes

Title

I, the undersigned, Adrienne Bonde de Jounge, Notary Public
of the City of Stockholm, Sweden, hereby certify that
JONAS STRINGBERG and LARS MOLANDER,
duly authorized to sign for
TELEFONAKTIEBOLAGET LM ERICSSON (publ),
have issued and signed the foregoing document.
Stockholm 2020-06-22
Ex officio:

Adrienne Bonde de Jounge

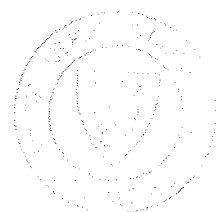


PATENT

REEL: 056054 FRAME: 0208

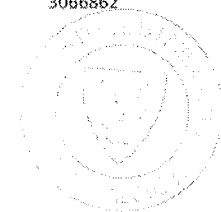
Schedule A to Patent Assignment Agreement
Assigned Patents

Country_ref	Country	Application number	Application dat	Publ number	Publication date	Patent number
P21461 BE1	Belgium	05823894.0	2005-12-22			1964279
P25495 BR1	Brazil	PI0806948-4	2008-01-14	PI0806948-4	2014-05-06	
P47612 CA1	Canada	3000643	2015-10-01			
P21461 CN1	China	200580052341-2	2005-12-22	101341665	2009-01-07	ZL200580052341-2
P22169 CN1	China	PCT/SE2007/050294	2007-04-30	101455045	2009-06-10	ZL200780015704.4
P22525 CN1	China	200780025749.X	2007-07-04	101485118	2009-07-15	ZL200780025749.X
P25495 CN1	China	200880008524-8	2008-01-14			ZL200880008524-8
P25510 CN1	China	200880128664.9	2008-04-21	CN 102017697A	2011-04-13	ZL200880128664.9
P30232 CN1	China	200980162782-6	2009-12-10	CN 102668454 A	2012-09-12	ZL200980162782-6
P32917 CN1	China	201180064841.3	2011-01-12	CN103299675 A	2013-09-18	ZL 201180064841.3
P35007 CN1	China	201280063459.5	2012-10-22	103999541	2014-08-20	ZL201280063459.5
P35199 CN1	China	201280059015.4	2012-11-19	104067584	2014-09-24	ZL201280059015.4
P38902 CN1	China	201380070176.8	2013-01-11	104904268	2015-09-09	ZL201380070176.8
P41553 CN1	China	201480080588.4	2014-07-14	106537794	2017-03-22	ZL201480080588.4
P47612 CN1	China	201580085010.2	2015-10-01	109076366	2018-12-21	
P22116 CN1	China	200780011012.2	2007-03-28	101411214	2009-04-15	ZL200780011012.2
P26871 CN1	China	200880132348.9	2008-12-19			ZL200880132348.9
P32721 CN1	China	201180066102.8	2011-01-26	103329558	2013-09-25	ZL201180066102.8
P24935 CN1	China	200880130364.4	2008-11-15	CN 102090028A	2011-06-08	ZL200880130364.4
P39595 CN1	China	201380033179.4	2013-04-24	104365073	2015-02-18	ZL201380033179.4
P33447 CN1	China	201280022348.X	2012-03-06	103502938	2014-01-08	ZL201280022348.X
P21461 DK1	Denmark	05823894.0	2005-12-22			1964279
P37564 EP1	European Patent	13197343.0	2013-12-16	2757719	2014-07-23	
P35618 FR1	France	12702905.6	2012-01-23			2807774
P38563 FR1	France	13795013.5	2013-11-07			3066862
P41553 FR1	France	14747735.0	2014-07-14			3170265
P47612 FR1	France	15778246.7	2015-10-01			3357273
P21439 DE1	Germany	06806520.0	2006-10-25	602006033505.9	2012-12-05	1941687
P21461 DE1	Germany	05823894.0	2005-12-22			602005032623.5
P22525 DE1	Germany	07769041.0	2007-07-04			602007053388.0
P25467 DE1	Germany	08013840.7	2008-08-01			2150001
P30232 DE1	Germany	09793509.2	2009-12-10			2510650
P31783 DE1	Germany	10773735.5	2010-07-13			602010019270.9
P34999 DE1	Germany	11770110.2	2011-10-14			602011022290.2
P35199 DE1	Germany	12813111.7	2012-11-19			602012015046.7
P35618 DE1	Germany	12702905.6	2012-01-23			602012012342.7
P38877 DE1	Germany	13783677.1	2013-10-03			2907352
P38877 DE1	Germany	13783677.1	2013-10-03			2907352
P41160 DE1	Germany	14710660.3	2014-02-19	602014030405.2		3108594
P41553 DE1	Germany	14747735.0	2014-07-14	602014022354.0		3170265
P47612 DE1	Germany	15778246.7	2015-10-01	60 2015 033 575.9		3357273
P22116 DE1	Germany	07716149.5	2007-03-28			602007019499.7
P26871 DE1	Germany	08876323.0	2008-12-19			60 2008 037 483.1
P24935 DE1	Germany	602008018494-3	2008-11-15			2314029
P24935 DE2	Germany	602008032346-3	2008-11-15			2493132
P23873 DE1	Germany	602007020066.0	2007-11-26			602007020066.0
P21461 IN1	India	5073/DELNP/2008	2005-12-22			295583
P25495 IN1	India	5108/DELNP/2009	2008-01-14			289571
P29351 IN1	India	826/DELNP/2012	2009-11-27	826/DELNP/2012	2015-06-26	
P30905 IN1	India	2133/KOLNP/2012	2010-01-18			
P31783 IN1	India	297/KOLNP/2013	2010-07-13			
P32917 IN1	India	5708/DELNP/2013	2011-01-12	5708/DELNP/2013	2014-12-05	
P33156 IN1	India	5067/DELNP/2013	2011-11-11	19/2016	2016-05-06	
P34638 IN1	India	18/DELNP/2014	2012-01-25			
P34885 IN1	India	2184/DELNP/2014	2012-09-14	11/2015	2015-03-13	
P35618 IN1	India	4400/DELNP/2014	2012-01-23	08/2015	2015-02-20	
P37465 IN1	India	1016/KOLNP/2015	2012-10-17			
P38563 IN1	India	201647019146	2013-11-07	201647019146A	2016-08-31	



P38877 IN1	India	3911/DELNP/2015	2013-10-03	40/2015	2015-10-02	
P41160 IN1	India	201647027827	2014-02-19	201647027827 A	2016-09-30	
P20584 IN1	India	4903/DELNP/2007	2005-12-22		2007-08-17	309828
P26871 IN1	India	PCT/SE2008/051518	2008-12-19			311092
P25829 IN1	India	5438/DELNP/2010	2009-03-16	5438/DELNP/2010	2012-02-03	318335
P24911 IN1	India	4021/DELNP/2010	2008-11-12	05/2012	2012-02-03	285484
P38877 ID1	Indonesia	P-00 2015 02741	2013-10-03	2017/03130	2017-03-31	
P24935 IT1	Italy	08875814.9	2008-11-15			2314029
P23873 IT1	Italy	07846822.0	2007-11-26	3390BE/2012	2012-03-23	2274897
P21439 JP1	Japan	2008-536987	2006-10-25	5043852	2012-10-10	5043852
P26526 JP1	Japan	2011-524310	2009-08-11	2012-501134	2012-01-12	5538395
P27670 JP1	Japan	2011-543832	2009-11-10	2012-508545	2012-04-05	5487216
P21429 JP1	Japan	2008-532605	2005-11-07			4673411
P23873 JP1	Japan	2010-534372	2007-11-26			5069356
P41553 MY1	Malaysia	PI 2017700082	2014-07-14			
P24935 MX2	Mexico	MX/A/2012/011122	2008-07-14			323145
P24935 MX1	Mexico	MX/A/2011/000264	2008-11-15			305030
P21439 NL1	Netherlands	06806520.0	2006-10-25			1941687
P21461 NL1	Netherlands	05823894.0	2005-12-22			1964279
P30232 NL1	Netherlands	09793509.2	2009-12-10			2510650
P34885 NL1	Netherlands	12783309.3	2012-09-14			2748945
P37465 NL1	Netherlands	12784089.0	2012-10-17			2910060
P41160 NL1	Netherlands	14710660.3	2014-02-19			3108594
P41553 NL1	Netherlands	14747735.0	2014-07-14			3170265
P22116 NL1	Netherlands	07716149.5	2007-03-28			2000001
P26871 NL1	Netherlands	08876323.0	2008-12-19			2368243
P24935 NL1	Netherlands	12003727.0	2008-11-15			2493132
P21461 RU1	Russian Federation	2008130054	2005-12-22			2407152
P26526 RU1	Russian Federation	2011111697	2009-08-11			2510582
P21461 ES1	Spain	05823894.0	2005-12-22			1964279
P24935 ES1	Spain	08875814.9	2008-11-15	ES 2394054 T3	2013-01-16	2314029
P24935 SE1	Sweden	08875814.9	2008-11-15			2314029
P21461 TW1	Taiwan	095143751	2006-11-27	I415405	2013-11-11	1415405
P21439 US2	The United States	11/438874	2006-05-23			7680218
P21461 US1	The United States	12/158962	2005-12-22	US-2009-0010229	2009-01-08	8520579
P21461 US2	The United States	13/948454	2013-07-23	US-2014-0050164	2014-02-20	9258787
P22525 US1	The United States	12/307763	2007-07-04	US-2009-0207815	2009-08-20	9236938
P25467 US2	The United States	13/056757	2009-06-23			8446300
P25495 US1	The United States	12/522208	2008-01-14	US-2010-0075651	2010-03-25	8165574
P25510 US1	The United States	12/988312	2008-04-21	US-2011-0044198	2011-02-24	8638753
P26526 US1	The United States	12/201303	2008-08-29			8238499
P26981 US2	The United States	12/506057	2009-07-20	US-2010-0074195	2010-03-25	8179783
P27670 US2	The United States	13/128924	2009-11-10	US-2011-0228758	2011-09-22	8873533
P29351 US2	The United States	12/728887	2010-03-22	US-2011-0002307	2011-01-06	8780866
P30232 US1	The United States	13/509077	2009-12-10			8781463
P30534 US1	The United States	13/576713	2010-03-09			9247460
P30905 US1	The United States	13/521454	2010-01-18			9350508
P31783 US1	The United States	13/702279	2010-07-13	US-2013-0165120	2013-06-27	9226130
P32853 US1	The United States	13/882253	2010-12-13			9215024
P32880 US2	The United States	13/650164	2012-10-12			8824416
P32917 US1	The United States	13/978961	2011-01-12			9641447
P33156 US2	The United States	13/293580	2011-11-10	US-2012-0120889	2012-05-17	8797957
P33156 US3	The United States	14/320934	2014-07-01	US-2015-0333891	2015-11-19	9172520
P34638 US2	The United States	13/231582	2011-09-13	US-2012-0315935	2012-12-13	8725079
P34885 US1	The United States	13/238509	2011-09-21	US-2013-0072110	2013-03-21	8805271
P34999 US1	The United States	14/350945	2011-10-14			9380488
P35007 US1	The United States	13/278212	2011-10-21			8599827
P35173 US1	The United States	13/351008	2012-01-16	US-2013-0182792	2013-07-18	9020065
P35199 US1	The United States	13/306232	2011-11-29			8798215

P35444 US1	The United States	14/368005	2011-12-23	US-2014-0369220	2014-12-18	9414321
P35618 US1	The United States	14/372149	2012-01-23	US-2014-0341194	2014-11-20	9565673
P35711 US1	The United States	14/353180	2012-03-01	US-2014-0256336	2014-09-11	9794812
P35931 US1	The United States	14/383537	2012-03-06			9860822
P35972 US1	The United States	13/438983	2012-04-04	US-2013-0267240	2013-10-10	8744473
P36222 US1	The United States	13/409842	2012-03-01	US-2013-0229975	2013-09-05	8913543
P36336 US1	The United States	14/399939	2012-05-07	US-2015-0094025	2015-04-02	9351160
P36435 US1	The United States	14/398273	2012-05-02	US-2015-0124632	2015-05-07	9426683
P36478 US1	The United States	14/397889	2012-05-04	US-2015-0131760	2015-05-14	9590768
P37043 US1	The United States	14/398569	2012-05-07	US-2015-0111609	2015-04-23	9253739
P37250 US1	The United States	14/441019	2012-12-03	US-2015-0304924	2015-10-22	9596636
P37465 US1	The United States	14/436117	2012-10-17	US-2015-0270877	2015-09-24	9628151
P37564 US1	The United States	13/717864	2012-12-18	US-2014-0169500	2014-06-19	8824598
P37816 US1	The United States	13/728360	2012-12-27	US-2014-0185465	2014-07-03	9036495
P38178 US1	The United States	13/671155	2012-11-07	US-2014-0126467	2014-05-08	9713189
P38563 US1	The United States	15/033499	2013-11-07	US-2016-0286407	2016-09-29	9615265
P38877 US2	The United States	13/861276	2013-04-11	US-2014-0106774	2014-04-17	9026140
P38902 US1	The United States	14/759315	2013-01-11	US-2015-0358883	2015-12-10	9936432
P39768 US1	The United States	14/317871	2014-06-27	US-2015-0009838	2015-01-08	9706503
P40401 US1	The United States	14/512594	2014-10-13	US-2015-0117196	2015-04-30	9693258
P40706 US1	The United States	14/913544	2013-08-27	US-2016-0212738	2016-07-21	9848428
P41160 US1	The United States	15/112227	2014-02-19	US-2016-0337054	2016-11-17	10097286
P41160 US2	The United States	16/122182	2018-09-05	US-2019-0036624	2019-01-31	
P41553 US1	The United States	14/434349	2014-07-14	US-2016-0277068	2016-09-22	9673861
P47612 US1	The United States	14/782079	2015-10-01	US-2017-0251388	2017-08-31	9986453
P20355 US1	The United States	12/064213	2005-08-19	US-2008-0253690	2008-10-16	8260056
P20584 US2	The United States	11/816996	2005-12-22	US-2008-0262850	2008-10-23	9626973
P26871 US1	The United States	13/140662	2008-12-19			8756055
P21429 US1	The United States	12/092884	2005-11-07	US-2008-0285599	2008-11-20	7864814
P32721 US1	The United States	13/980979	2011-01-26			9009765
P30516 US1	The United States	13/639058	2010-04-02	US-2013-0031222	2013-01-31	9113177
P29954 US1	The United States	13/510391	2009-12-18	US-2012-0230333	2012-09-13	8964743
P26158 US1	The United States	12/167900	2008-07-03	US-2010-0002697	2010-01-07	7792031
P24935 US2	The United States	13/054430	2008-11-15			8867409
P25829 US1	The United States	12/933200	2009-03-16	US-2011-0013640	2011-01-20	8411688
P35178 US1	The United States	13/302928	2011-11-22	US-2013-0128746	2013-05-23	8644149
P39595 US1	The United States	13/693194	2012-12-04	US-2013-0286856	2013-10-31	9288129
P42909 US1	The United States	14/288211	2014-05-27	US-2015-0350059	2015-12-03	9407534
P42911 US1	The United States	14/288338	2014-05-27	US-2015-0350061	2015-12-03	9313117
P43323 US1	The United States	14/292516	2014-05-30	US-2015-0350062	2015-12-03	9225629
P45345 US1	The United States	14/622604	2015-02-13	US-2016-0241911	2016-08-18	9521458
P45531 US1	The United States	14/726850	2015-06-01	US-2016-0352614	2016-12-01	9853880
P64118 US1	The United States	12/678163	2008-02-07	US-2010-0265970	2010-10-21	8315262
P24911 US2	The United States	12/746435	2008-11-12	US-2010-0284418	2010-11-11	9148300
P33447 US1	The United States	13/044784	2011-03-10			8413148
P40644 US2	The United States	14/273207	2014-05-08	US-2014-0351639	2014-11-27	9372756
P42949 US1	The United States	14/385598	2014-05-28			9515911
P21439 GB1	United Kingdom	06806520.0	2006-10-25			1941687
P21461 GB1	United Kingdom	05823894.0	2005-12-22			1964279
P22169 GB1	United Kingdom	07748455.8	2007-04-30			2020132
P22525 GB1	United Kingdom	07769041.0	2007-07-04			2039202
P25467 GB1	United Kingdom	08013840.7	2008-08-01			2150001
P26526 GB1	United Kingdom	09781708.4	2009-08-11			2329627
P27696 GB1	United Kingdom	09788484.5	2009-02-10			2396989
P30232 GB1	United Kingdom	09793509.2	2009-12-10			2510650
P35007 GB1	United Kingdom	12790954.7	2012-10-22			2769596
P35199 GB1	United Kingdom	12813111.7	2012-11-19			2786541
P37465 GB1	United Kingdom	12784089.0	2012-10-17			2910060
P38563 GB1	United Kingdom	13795013.5	2013-11-07			3066862



P41160 GB1	United Kingdom	14710660.3	2014-02-19			3108594
P41553 GB1	United Kingdom	14747735.0	2014-07-14			3170265
P47612 GB1	United Kingdom	15778246.7	2015-10-01			3357273
P22116 GB1	United Kingdom	07716149.5	2007-03-28			2000001
P26871 GB1	United Kingdom	08876323.0	2008-12-19			2368243
P25161 GB1	United Kingdom	1011137.5	2008-01-31	2469235	2010-10-06	2469235
P24935 GB1	United Kingdom	08875814.9	2008-11-15			2314029
P24935 GB2	United Kingdom	12003727.0	2008-11-15			2493132
P23873 GB1	United Kingdom	07846822.0	2007-11-26			2274897

