

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	ALCATEL LUCENT	12/31/2015
RECEIVING PARTY DATA		
Name:	NOKIA TECHNOLOGIES OY	
Street Address:	KARAPORTTI 3	
City:	ESPOO	
State/Country:	FINLAND	
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PROPERTY NUMBERS Total: 2		
Property Type	Number	
Application Number:	13675716	
Patent Number:	8396476	
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DATE SIGNED:	01/25/2016	
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ASSIGNMENT OF PATENTS AND PATENT APPLICATIONS

WHEREAS, ALCATEL LUCENT ("ALCATEL LUCENT") a corporation organized under the laws of France, having a principal business address at 148/152 route de la Reine, 92100 Boulogne-Billancourt, France, and a successor in interest of former Alcatel S.A., prior to the effective date of this Agreement is the owner of record of the Assigned Patents as follows:

ASSIGNED PATENTS

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
140872-US-PCT	US8121083	US	21-Feb-2012	12438082	21-Aug-2007	Method And Device For Reporting Request For Uplink Scheduling Or Emergency In Wireless Network
140872-CN-NP	ZL200610030296.7	CN	30-Nov-2011	200610030296.7	22-Aug-2006	Scheduling Information for E- UTRAN Uplink Scheduling
801133-ES-EPA	EP1981300	ES	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-RU-PCT	RU2458472	RU	10-Aug-2012	2009141715	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-US-NP	US8396476	US	12-Mar-2013	12/100835	10-Apr-2008	Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-IN-PCT		IN		6483/DEL/NP/2009	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-KR-PCT	KR101538609	KR	1-Oct-2015	20097021295	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-MX-PCT	MX303792	MX	27-Sep-2012	MX/a/2009/010885	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different

						Access Systems
801133-CZ-EPA	EP1981300	CZ	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
801133-FI-EPA	EP1981300	FI	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-SE-EPA	EP1981300	SE	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-CN-NP	ZL200810091686.4	CN	23-May-2012	200810091686.4	14-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-JP-DIV	JP5745018	JP	13-May-2015	2013253017	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-AU-PCT	AU2008238037	AU	8-Sep-2011	2008238037	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-NL-EPA	EP1981300	NL	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-GB-EPA	EP1981300	GB	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-BR-PCT		BR		PI0810194-9	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
801133-JP-PCT	JP5491380	JP	7-Mar-2014	2010502498	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-IL-PCT		IL		201212	8-Apr-2008	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-FR-EPA	EP1981300	FR	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-DK-EPA	EP1981300	DK	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-CH-EPA	EP1981300	CH	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-US-CNT		US		13/675716	13-Nov-2012	Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-PL-EPA	EP1981300	PL	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801133-DE-EPA	EP1981300	DE	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems

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801133-IT-EPA	EP1981300	IT	25-Jul-2012	07290450.1	12-Apr-2007	A Method For Mobility Management In A System Architecture Supporting Mobility Between Different Access Systems
801323-US-PCT	US8897233	US	25-Nov-2014	12/672616	10-Aug-2007	Communication Method And Apparatus For Controlling Data Transmission And Retransmission Of Mobile Station At Base Station
801323-JP-PCT	JP5600060	JP	22-Aug-2014	2010520395	10-Aug-2007	DL Indication Based Strategy For UL HARQ Without Data- Associated Signaling In LTE
801323-EP-EPT		EP		07785308.3	10-Aug-2007	DL Indication Based Strategy For UL HARQ Without Data- Associated Signaling In LTE
801323-CN-PCT	ZL200780100107.1	CN	23-Jan-2013	200780100107.1	10-Aug-2007	DL Indication Based Strategy For UL HARQ Without Data- Associated Signaling In LTE
801323-US-CNT		US		14/490199	18-Sep-2014	DL Indication Based Strategy For UL HARQ Without Data- Associated Signaling In LTE
803435-KR-PCT	KR101456043	KR	23-Oct-2014	20107028463	16-Jun-2008	New Mechanisms For The DL Semi-Persistent Scheduling HARQ Process Allocation For LTE
803435-US-PCT	US8595579	US	26-Nov-2013	12/997757	16-Jun-2008	Method For DL Semi-Persistent Scheduling HARQ Process Allocation And Apparatus Thereof
803435-EP-EPT		EP		08757447.1	16-Jun-2008	New Mechanisms For The DL Semi-Persistent Scheduling HARQ Process Allocation For LTE
803435-JP-PCT	JP5260734	JP	2-May-2013	2011513839	16-Jun-2008	Method For DL Semi-Persistent Scheduling HARQ Process Allocation And Apparatus Thereof
803435-CN-PCT	ZL200880129881.X	CN	5-Jun-2013	200880129881.X	16-Jun-2008	New Mechanisms For The DL Semi-Persistent Scheduling HARQ Process Allocation For LTE
803435-IN-PCT		IN		8123/CHENP/2010	16-Jun-2008	New Mechanisms For The DL Semi-Persistent Scheduling HARQ Process Allocation For LTE

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
805688-IT-EPA	EP2288201	IT	3-Oct-2012	09290630.4	18-Aug-2009	UE Measurements For Hot Spot Detection
805688-KR-PCT	KR101398407	KR	16-May-2014	10-2012-7006943	11-Aug-2010	UE Measurements For Coverage Detection In Hot Spots
805688-DE-EPA	EP2288201	DE	3-Oct-2012	09290630.4	18-Aug-2009	UE Measurements For Hot Spot Detection
805688-US-CNT		US		14/634047	27-Feb-2015	UE Measurements For Coverage Detection In Hot Spots
805688-CN-PCT		CN		201080036487.9	11-Aug-2010	UE Measurements For Coverage Detection In Hot Spots
805688-GB-EPA	EP2288201	GB	3-Oct-2012	09290630.4	18-Aug-2009	UE Measurements For Hot Spot Detection
805688-FR-EPA	EP2288201	FR	3-Oct-2012	09290630.4	18-Aug-2009	UE Measurements For Hot Spot Detection
805688-ES-EPA	EP2288201	ES	3-Oct-2012	09290630.4	18-Aug-2009	UE Measurements For Hot Spot Detection
805688-US-PCT	US9008719	US	14-Apr-2015	13/391029	11-Aug-2010	UE Measurements For Hot Spot Detection
805688-JP-PCT	JP5538540	JP	9-May-2014	2012-525131	11-Aug-2010	UE Measurements For Coverage Detection In Hot Spots
805806-IN-PCT		IN		3941/CHENP/2012	21-Oct-2010	A Method Of Call Admission Control For Home Femtocells
805806-US-CNT		US		13/919333	17-Jun-2013	A Method Of Call Admission Control For Home Femtocells
805806-EP-EPT		EP		10773776.9	21-Oct-2010	A Method Of Call Admission Control For Home Femtocells
805806-KR-PCT	KR101434943	KR	21-Aug-2014	20127014461	21-Oct-2010	A Method Of Call Admission Control For Home Femtocells
805806-CN-PCD		CN		201310115639.9	21-Oct-2010	A Method Of Call Admission Control For Home Femtocells
805806-US-NP	US8498651	US	30-Jul-2013	12/613578	6-Nov-2009	Method Of Call Admission Control For Home Femtocells
805806-JP-PCT	JP5528563	JP	25-Apr-2014	2012537901	21-Oct-2010	A Method Of Call Admission Control For Home Femtocells
805806-CN-PCT	ZL201080050033.7	CN	12-Aug-2015	201080050033.7	21-Oct-2010	A Method Of Call Admission Control For Home Femtocells
807650-FR-EPT	EP2583402	FR	10-Dec-2014	11726168.5	25-Mar-2011	Method And Device For Controlling An Uplink Transmission In A Management Device Of LTE-A Network
807650-US-CNT		US		14/681133	8-Apr-2015	Method For Controlling Uplink Transmission In A Management Device Of LTE-A Network And The Device Thereof
807650-DE-ETD	EP2757729	DE	6-Jan-2016	14164494.8	11-Apr-2014	Method And Device For Controlling Uplink Transmission In A Management Device Of A LTE-A Network

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
807650-US-PCT	US9008048	US	14-Apr-2015	13/703450	25-Mar-2011	Method For Controlling Uplink Transmission In A Management Device Of LTE-A Network And The Device Thereof
807650-IT-EPT	EP2583402	IT	10-Dec-2014	11726168.5	25-Mar-2011	Method And Device For Controlling An Uplink Transmission In A Management Device Of LTE-A Network
807650-KR-PCT	KR101435425	KR	22-Aug-2014	20127032903	25-Mar-2011	A Method for controlling Uplink transmission in a management device of LTE-A network and the device thereof
807650-DE-EPT	EP2583402	DE	10-Dec-2014	11726168.5	25-Mar-2011	Method And Device For Controlling An Uplink Transmission In A Management Device Of LTE-A Network
807650-ES-EPT	EP2583402	ES	10-Dec-2014	11726168.5	25-Mar-2011	Method And Device For Controlling An Uplink Transmission In A Management Device Of LTE-A Network
807650-GB-ETD	EP2757729	GB	6-Jan-2016	14164494.8	11-Apr-2014	Method And Device For Controlling Uplink Transmission In A Management Device Of A LTE-A Network
807650-JP-PCT	JP5599508	JP	22-Aug-2014	2013515978	25-Mar-2011	A Method For Controlling Uplink Transmission In A Management Device Of LTE-A Network And The Device Thereof
807650-GB-EPT	EP2583402	GB	10-Dec-2014	11726168.5	25-Mar-2011	Method And Device For Controlling An Uplink Transmission In A Management Device Of LTE-A Network
807650-CN-NP	ZL201010210063.1	CN	2-Apr-2014	201010210063.1	20-Jun-2010	A Method For Controlling Uplink Transmission In A Management Device Of LTE-A Network And The Device Thereof
807650-BR-PCT		BR		2012032382-2	25-Mar-2011	A Method For Controlling Uplink Transmission In A Management Device Of LTE-A Network And The Device Thereof
807650-FR-ETD	EP2757729	FR	6-Jan-2016	14164494.8	11-Apr-2014	Method And Device For Controlling Uplink Transmission In A Management Device Of A LTE-A Network

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
807650-IN-PCT		IN		10489/CHENP/2012	25-Mar-2011	A Method For Controlling Uplink Transmission In A Management Device Of LTE-A Network And The Device Thereof
808363-KR-PCT	KR10-1490144	KR	30-Jan-2015	10-2013-7010551	28-Sep-2011	Deactivation Of LIPA Connection
808363-EP-EPA		EP		10306049.7	29-Sep-2010	De-Activation Of Data Bearer Connections Upon Outgoing Handover From A Home Cell
808363-CN-PCT		CN		201180046424.6	28-Sep-2011	Deactivation Of LIPA Connection
808363-JP-PCT	JP5654683	JP	28-Nov-2014	2013-530717	28-Sep-2011	Deactivation Of LIPA Connection
808363-US-PCT	US9060373	US	16-Jun-2015	13/876116	28-Sep-2011	De-Activation Of Data Bearer Connections Upon Outgoing Handover From A Home Cell
808410-DE-EPA	EP2439867	DE	6-Aug-2014	10306086.9	5-Oct-2010	Method For Generating Feedback For MIMO Operation In A Radio Communication Network, Corresponding Receiver And Transmitter
808410-FR-EPA	EP2439867	FR	6-Aug-2014	10306086.9	5-Oct-2010	Method For Generating Feedback For MIMO Operation In A Radio Communication Network, Corresponding Receiver And Transmitter
808410-GB-EPA	EP2439867	GB	6-Aug-2014	10306086.9	5-Oct-2010	Method For Generating Feedback For MIMO Operation In A Radio Communication Network, Corresponding Receiver And Transmitter
811694-KR-PCT		KR		20147027103	07-Mar-2013	Load Balancing
811694-CN-PCT		CN		201380018159	07-Mar-2013	Load Balancing
811694-IN-PCT		IN		6995/CHENP/2014	07-Mar-2013	Load Balancing
811694-TW-NP	TW1479910	TW	01-Apr-2015	102110500	25-Mar-2013	Load Balancing
811694-JP-PCT		JP		2015502125	07-Mar-2013	Load Balancing
811694-US-PCT		US		14/388932	07-Mar-2013	Load Balancing
Alexiou 8-2-19 (A)-US-CNT	US8311489	US	13-Nov-2012	13/098731	2-May-2011	Closed-Loop Multiple-Input- Multiple-Output Scheme For Wireless Communication Based On Hierarchical Feedback

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
Alexiou 8-2-19 (A)-US-CNT[2]	US9020444	US	28-Apr-2015	13/617358	14-Sep-2012	Closed-Loop Multiple-Input- Multiple-Output Scheme For Wireless Communication Based On Hierarchical Feedback
Alexiou 8-2-19 (A)-US-NP	US7957701	US	7-Jun-2011	11/754624	29-May-2007	A Closed-Loop Multiple-Input- Multiple-Output Scheme For Wireless Communication Based On Hierarchical Feedback
Alexiou 8-2-19 (A)-US-CNT[3]		US		14/631278	25-Feb-2015	Closed-Loop Multiple-Input- Multiple-Output Scheme For Wireless Communication Based On Hierarchical Feedback
Casati 22-3-33-25 (A)-BR-PCT		BR		PI0898186-7	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-NL-EPT	EP2119268	NL	29-Dec-2010	08707090.0	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-GB-EPT	EP2119268	GB	29-Dec-2010	08707090.0	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-KR-PCT	KR1073372	KR	7-Oct-2011	20097016275	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-IN-PCT		IN		4507/CHENP/2009	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-IL-PCT	IL200225	IL	1-Jul-2014	200225	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-US-PCT	US8649786	US	11-Feb-2014	12/526115	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-CN-PCD	ZL201110088020.5	CN	3-Dec-2014	201110088020.5	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
Casati 22-3-33-25 (A)-DE-EPT	EP2119268	DE	29-Dec-2010	08707090.0	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-IT-EPT	EP2119268	IT	29-Dec-2010	08707090.0	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-CN-PCD[2]		CN		201310145700.5	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-AU-PCT	AU2008213439	AU	9-Jun-2011	2008213439	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-ES-EPT	EP2119268	ES	29-Dec-2010	08707090.0	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-CN-PCT	ZL200880004315.6	CN	5-Jun-2013	200880004315.6	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-TR-EPT	EP2119268	TR	29-Dec-2010	08707090.0	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-MX-PCT	MX296890	MX	8-Mar-2012	MX/a/2009/008320	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-RU-PCT	RU2449499	RU	27-Apr-12	2009133374	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-PL-EPT	EP2119268	PL	29-Dec-2010	08707090.0	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-FR-EPT	EP2119268	FR	29-Dec-2010	08707090.0	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
Casati 22-3-33-25 (A)-TW-NP	TWI422265	TW	1-Jan-2014	97103730	31-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Casati 22-3-33-25 (A)-JP-PCT	JP5059129	JP	10-Aug-2012	2009548595	15-Jan-2008	Registering A Mobile Terminal In An Area Of Overlapping Cell Coverage By First And Second Networks
Foschini 7-18 (GJ)- IT-EPA	EP0951091	IT	10-Oct-2007	99302692.1	7-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- DE-EPA	EP0951091	DE	10-Oct-2007	99302692.1	7-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- GB-EPA	EP0951091	GB	10-Oct-2007	99302692.1	7-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- JP-NP	JP3929639	JP	16-Mar-2007	107356/1999	15-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- FI-EPA	EP0951091	FI	10-Oct-2007	99302692.1	7-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- SE-EPA	EP0951091	SE	10-Oct-2007	99302692.1	7-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- FR-EPA	EP0951091	FR	10-Oct-2007	99302692.1	7-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- KR-NP	KR607834	KR	26-Jul-2006	19990013355	15-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
Foschini 14-19 (GJ)-US-CNT	US6763073	US	13-Jul-2004	09/882120	15-Jun-2001	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- US-NP	US6317466	US	13-Nov-2001	09/060657	15-Apr-1998	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Foschini 7-18 (GJ)- NL-EPA	EP0931091	NL	10-Oct-2007	99302692.1	7-Apr-1999	Wireless Communications System Having A Space-Time Architecture Employing Multi- Element Antennas At Both The Transmitter And Receiver
Jami 12-20-28 (I)- KR-PCT	KR101149389	KR	17-May-2012	20097019129	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- JP-PCT		JP		2009554507	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- CN-PCT		CN		200780052221.1	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- CN-PCD		CN		201210083274.2	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- EP-ETD		EP		13150275.9	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- IN-PCT		IN		5356/CHENP/2009	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- JP-PCD[2]		JP		2015019844	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- EP-EPT		EP		07812424.5	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- US-PCT	US8693412	US	8-Apr-2014	12/671553	28-Jun-2007	Configurable Random Access Channel Structure For Range Extension In A Wireless Communication System
Jami 12-20-28 (I)- JP-PCD		JP		2013076522	28-Jun-2007	A Configurable RACH Structure For RACH Range Extension
Jami 12-20-28 (I)- US-CNT	US8964649	US	24-Feb-2015	14/184565	19-Feb-2014	Configurable Random Access Channel Structure For Range Extension In A Wireless Communication System
Laroya 21-13-7 (R)-JP-DIV		JP		2012171750	19-Jul-2001	Ensuring Proper Acceptance Of Data At A Receiver In Wireless Multiple Access Communications Systems
Laroya 21-13-7 (R)-US-NP	US6748566	US	8-Jun-2004	09/620797	21-Jul-2000	Ensuring Proper Acceptance Of Data At A Receiver In Wireless Multiple Access Communications Systems

Alcatel Lucent Ref. No.	Patent No.	Country	Issue Date / Abandonment Date	Application No.	Application Date	Title
Larola 21-13-7 (R)-JP-DIV[2]		JP		2014204366	19-Jul-2001	Wireless Multiple Access Communication System, and Device Used in Transmitter and Receiver Used for the Same
Larola 28-20-13 (R)-US-NP	US6816478	US	9-Nov-2004	09/706132	3-Nov-2000	Apparatus And Method For Use In Effecting Automatic Repeat Requests In Wireless Multiple Access Communications Systems

WHEREAS, NOKIA TECHNOLOGIES OY ("Purchaser"), a company, having offices at Karaportti 3, 02610 Espoo Finland is desirous of acquiring the entire interest in and to the Assigned Patents (as listed above);

WHEREAS, ALCATEL LUCENT and Purchaser have entered into a Patent Purchase and Sale Agreement for the Assigned Patents dated December 31st, 2015 ("PPS Agreement") wherein ALCATEL LUCENT has agreed to sell and Purchaser has agreed to purchase the Assigned Patents;

WHEREAS, capitalized terms used but not defined herein shall have the meanings set forth in the PPS Agreement;

WHEREAS, this assignment ("Assignment") is made by ALCATEL LUCENT subject to and contingent upon Purchaser concurrently providing to ALCATEL LUCENT a Grant-Back License under the Grant-Back Licensed Patents and upon Purchaser and its Affiliates making certain covenants in accordance with the PPS Agreement including Purchaser's agreement to comply with all obligations arising out of any Permitted Standards-Related Actions as specified in the PPS Agreement.

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration to ALCATEL LUCENT ("Assignor") in hand paid, the receipt, adequacy, and sufficiency of which is hereby acknowledged by the Closing Date, ALCATEL LUCENT has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over unto said Purchaser ("Assignee"), subject to all Encumbrances (where, for clarity, such Encumbrances shall run with the Assigned Patents), its entire right, title, and interest in and to all of the Assigned Patents, said entire right, title, and interest in and to said Assigned Patents including all past, present, and future causes of action and claims for damages derived by reason of patent infringement thereof (to the extent such damages are not already paid, awarded or contractually owed to ALCATEL LUCENT, its Affiliates or any predecessor of ALCATEL LUCENT or ALCATEL LUCENT's Affiliates), but in all cases excluding any license fees, royalties or other amounts due under agreements existing as of the Effective Date, for said Purchaser's own use and for the use of its assigns, successors, and legal representatives to the full end of the term of the Assigned Patents. For clarity, the foregoing assignment does not include (i) any trademarks, trade dress, trade names, or other indicia of origin; (ii) except for inventions

of the Assigned Patents, any inventions or discoveries, whether patentable or not, and registrations, invention disclosures, patents and applications thereof; (iii) any trade secrets, confidential information or know-how; (iv) any works of authorship, whether copyrightable or not; and (v) any other intellectual property or proprietary rights of ALCATEL LUCENT, its Affiliates or any predecessor of ALCATEL LUCENT or ALCATEL LUCENT's Affiliates.

ALCATEL LUCENT, for itself, and its heirs, assigns, and legal representatives hereby further covenants to and with Purchaser, its assigns, successors, and legal representatives to fully cooperate therewith in perfecting this assignment in the United States and in any and all foreign jurisdictions, said cooperation extending to the Assigned Patents, and including the execution of additional assignments or other formal documents as may be required in connection therewith, but in all such cases shall be at the expense of Purchaser.

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IN WITNESS WHEREOF, each of Assignor and Assignee has caused this Assignment of the Assigned Patents to be executed by its duly authorized representative on the respective dates entered below and such Assignment shall be effective upon (i) execution of this Assignment by ALCATEL LUCENT and Purchaser and (ii) receipt by ALCATEL LUCENT of the payment as specified in Section 2.2 of the PPS Agreement.

ASSIGNOR
ALCATEL LUCENT

Bernard Zucker
Signature

Bernard Zucker
Vice President, Law Services
Intellectual Property Business Group

31 December 2015
Date

ASSIGNEE
NOKIA TECHNOLOGIES OY

Jukka Nihtilä Teemu Soininen
Signature Signature
Jukka Nihtilä Teemu Soininen
Head, Business Development Director, Patent Licensing
Patent Business Director, Patent Licensing
Printed Name

Title
31 Dec 2015 31 Dec 2015
Date

ACKNOWLEDGMENT
STATE OF FLORIDA)

: ss:
COUNTY OF PALM BEACH)

I CERTIFY that on 12-31-15, Bernard Zucker
personally came before me and this person acknowledged under oath, to my satisfaction that: this person signed, sealed and delivered this Assignment of Assigned Patents as Senior Vice President, Intellectual Property Business Group.

Name: Guy Levhar
Notary Public
My commission Expires: July 1 2018
[Notaries Seal]

[Signature]

