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Attorneys for Plaintiffs	
Cellular Transitions, LLC	
UNITED STA	TES DISTRICT COURT
SOUTHERN DI	STRICT OF CALIFORNIA
CELLULAR TRANSITIONS, LLC,	Case No. <u>'18CV1955 BTM JMA</u>
Plaintiff,	COMPLAINT FOR PATENT
	INFRINGEMENT
V.	
LG ELECTRONICS, INC., LG	DEMAND FOR JURY TRIAL
ELECTRONICS U.S.A., INC.; LG	
ELECTRONICS MOBILECOMM	
U.S.A., INC.,	
Defendants.	

Plaintiff Cellular Transitions, LLC ("CellTran"), by and through the 1 2 undersigned counsel, hereby brings this action and makes the following allegations 3 of patent infringement relating to U.S. Patent Nos. 8,855,637 ("the '637 patent") 4 and 9,888,425 ("the '425 patent") against one or more of LG Electronics, Inc., LG Electronics U.S.A., Inc. and LG Electronics Mobilecomm U.S.A., Inc. 5 6 (collectively, "LG"), and alleges as follows upon actual knowledge with respect to 7 itself and its own acts, and upon information and belief as to all other matters. 8 NATURE OF THE ACTION 9 1. This is an action for patent infringement. CellTran alleges that LG 10 infringes one or more claims of the '637 patent and the '425 patent, copies of which are attached as Exhibits A-B, respectively (collectively "the Asserted Patents"). 11 12 THE PARTIES Plaintiff CellTran is a Texas limited liability company with its 2. 13 14 principal place of business in Plano, Texas. 15 3. Upon information and belief, LG Electronics, Inc. in incorporated under the laws of South Korea with its principal place of business at LG Twin 16 17 Towers 20, Yeouido-dong, Yeongdeunspo-gu, Seoul 150-721, South Korea. Upon 18 information and belief, LG Electronics, Inc. owns and controls, directly and/or indirectly, LG Electronics U.S.A., Inc. and LG Electronics Mobilecomm U.S.A., 19 20 Inc. 21 4. Upon information and belief, LG Electronics U.S.A., Inc. is a Delaware corporation with its principal place of business at 1000 Sylvan Ave., 22 23 Englewood Cliffs, New Jersey 07632. 24 5. Upon information and belief, LG Electronics Mobilecomm U.S.A., 25 Inc. is a California corporation with its principal place of business at 10225 Willow 26 Creek Rd., San Diego, California, 92131. LG Electronics Mobilecomm U.S.A., 27 Inc. may be served via its registered agent, Corporation Service Company (which 28 COMPLAINT FOR PATENT INFRINGEMENT

will do business in California as CSC – Lawyers Incorporating Service), 2710
 Gateway Oaks Dr., Suite 150N, Sacramento, California 95833.

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JURISDICTION AND VENUE

6. This action for patent infringement arises under the Patent Laws of the
United States, 35 U.S.C. § 1 et. seq. This Court has original jurisdiction under 28
U.S.C. §§ 1331 and 1338.

7 This Court has both general and specific personal jurisdiction over LG 7. 8 because LG has committed acts within the Southern District of California giving 9 rise to this action and has established minimum contacts with this forum such that 10 the exercise of jurisdiction over LG would not offend traditional notions of fair play and substantial justice. LG, directly and through subsidiaries and intermediaries 11 12 (including distributors, retailers, franchisees and others), has committed and 13 continues to commit acts of infringement in this District by, among other things, 14 making, using, testing, selling, importing, and/or offering for sale products that 15 infringe the Asserted Patents.

8. Venue is proper in this district and division under 28 U.S.C.
§§1391(b)-(d) and 1400(b) because LG transacts business in the Southern District
of California, has committed and continues to commit acts of direct infringement in
the Southern District of California, and has established places of business in the
Southern District of California.

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COUNT 1: INFRINGEMENT OF THE '637 PATENT

9. The allegations of paragraphs 1-8 of this Complaint are incorporatedby reference as though fully set forth herein.

24 10. CellTran owns by assignment the entire right, title, and interest in the25 '637 patent.

26 11. The '637 patent was issued by the United States Patent and Trademark
27 Office on October 7, 2014, and is titled "Methods and Apparatus for Performing
28 Handoff Based on the Mobility of a Subscriber Station." A true and correct copy of COMPLAINT FOR PATENT INFRINGEMENT

1 the '637 patent is attached as Exhibit A.

12. Upon information and belief, LG has infringed at least claim 13 of the
'637 patent by making, using, testing, selling, offering for sale, importing and/or
licensing in the United States licensed assisted access (LAA) mobile devices,
including at least the V30 & V30+, V30S ThinQ, G7 ThinQ, V35 ThinQ, and V40
ThinQ smartphones (collectively the "Accused Infringing Devices") in an
exemplary manner as described below.

8 13. The Accused Infringing Devices are subscriber stations, sometimes
9 referred to as user equipment ("UE"), which support LTE-Advanced connectivity
10 and LAA technology.



19 <u>https://www.qualcomm.com/news/onq/2017/10/13/lg-v30-and-snapdragon-835-</u>
 20 <u>unite-premium-photography-security-and-mobile-vr</u>

14. The Accused Infringing Devices contain a front end module
 configured to establish a service with a base station via a non-licensed spectrum.
 For example, the Accused Infringing Devices contain front end components that

convert information into radio signals that can be transmitted and received over the

25 air.

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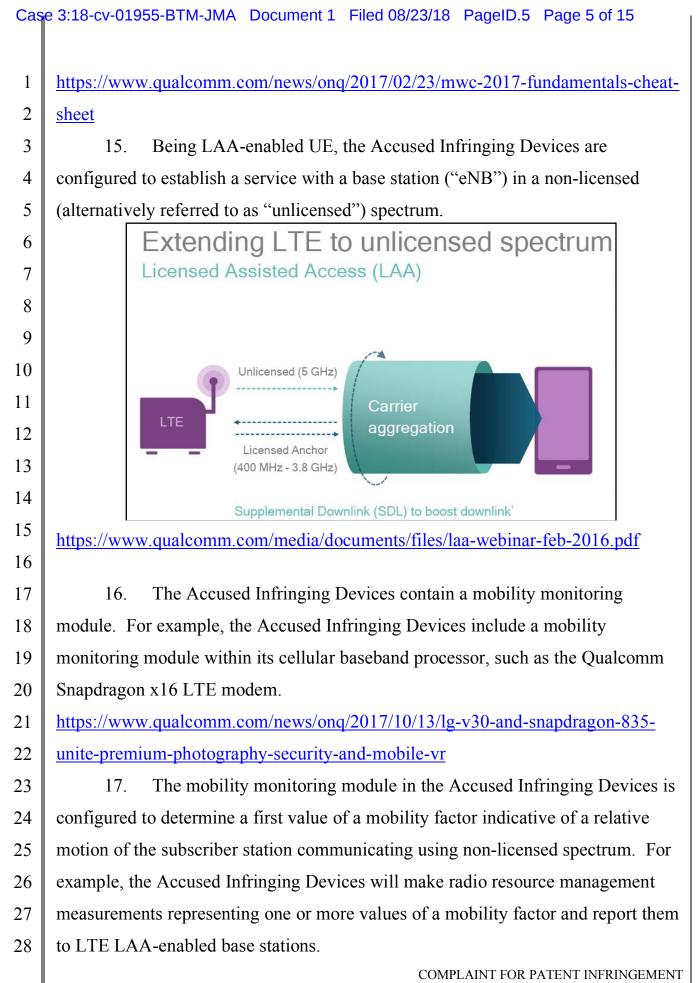
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26 RFFE (RF Front-End):

 27 <u>RF Front End</u> (RFFE) refers to a set of mobile device components that convert information into radio signals that can be transmitted and received over the air. RFFE
 28 components work in conjunction with a device's modem and antenna.

COMPLAINT FOR PATENT INFRINGEMENT



Cas	e 3:18-cv-01955-BTM-JMA Document 1 Filed 08/23/18 PageID.6 Page 6 of 15			
1	5.5 Measurements			
2 3	5.5.1 Introduction			
4	The UE reports measurement information in accordance with the measurement configuration as provided by E- UTRAN. E-UTRAN provides the measurement configuration applicable for a UE in RRC_CONNECTED by means of			
5	dedicated signalling, i.e. using the <i>RRCConnectionReconfiguration</i> or <i>RRCConnectionResume</i> message.			
6	The UE can be requested to perform the following types of measurements: Intra-frequency measurements: measurements at the downlink carrier frequency(ies) of the serving cell(s). 			
7	 Intra-frequency measurements: measurements at frequencies that differ from any of the downlink carrier frequency(ies) of the serving cell(s). 			
8	 Inter-RAT measurements of UTRA frequencies. 			
9	 Inter-RAT measurements of GERAN frequencies. 			
10	- Inter-RAT measurements of CDMA2000 HRPD or CDMA2000 1xRTT or WLAN frequencies.			
11 12	ETSI TS 136 331 V13.8.1 (2018-01) https://www.etsi.org/deliver/etsi_ts/136300_136399/136331/13.08.01_60/ts_13633 1v130801p.pdf			
13	18. The mobility monitoring module in the Accused Infringing Devices is			
14	configured to determine availability of the service via a licensed spectrum. For			
15	example, the mobility monitoring module within the Qualcomm Snapdragon			
16	processors within the Accused Infringing Devices is also configured to			
17	communicate with a base station ("eNB") in a licensed spectrum to determine			
18	availability of the service.			
19	Multiple technologies will co-exist for different needs			
20				
21 22	Licensed Spectrum anchor Licensed Spectrum anchor Licensed Spectrum anchor			
23	Exclusive use			
24	Aggregation with licensed anchor			
25	licensed anchor Carrier Wi-r1 deployments channel			
26	Broadens LTE ecosystem to enhanced and new			
27	Unlicensed Spectrum deployment opportunities			
28	Wi-Fi (11ac/11ad/11ax/11ay) Evolving for enhanced performance and expanding to new usage models			
	COMPLAINT FOR PATENT INFRINGEMENT -5-			
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https://www.qualcomm.com/documents/progress-laa-and-its-relationship-lte-u-and multefire

3	19. The front end module in the Accused Infringing Devices is further		
4	configured to initiate transfer of the service to the licensed spectrum associated with		
5	the base station if the first value of the mobility factor indicates that the subscriber		
6	station has been in a high mobility state for at least a predetermined period of time.		
7	For example, an Accused Infringing Device ("UE") will trigger a measurement		
8	event that produces measurement results which, when processed by the base station		
9	("eNB"), indicate the that the UE is in a high mobility state, e.g., a UE's		
10	measurement results may indicate fast signal fades or rapidly increasing (or		
11	decreasing) received power from a neighbor cell (or serving cell). The reporting of		
12	these measurements by the UE's front end module will initiate a transfer of the		
13	service to the licensed spectrum. The UE will not report measurement results		
14	unless the UE has experienced conditions for triggering a measurement event for a		
15	predetermined period of time (referred to as the TimeToTrigger).		
16			
17	5.5.4.4 Event A3 (Neighbour becomes offset better than PCell/ PSCell)		
18	The UE shall:		
	1> consider the entering condition for this event to be satisfied when condition A3-1, as specified below, is fulfilled;		
19	1> consider the leaving condition for this event to be satisfied when condition A3-2, as specified below, is fulfilled;		
20	 1> if usePSCell of the corresponding reportConfig is set to true: 2> use the PSCell for Mp, Qfp and Ocp; 		
21	l> else:		
22	2> use the PCell for Mp, Qfp and Ocp;		
23	NOTE The cell(s) that triggers the event is on the frequency indicated in the associated <i>measObject</i> which may be different from the frequency used by the PCell/ PSCell.		
24	Mn is the measurement result of the neighbouring cell, not taking into account any offsets.		
25	$M\!p$ is the measurement result of the PCell/ PSCell, not taking into account any offsets.		
23 26	https://www.etsi.org/deliver/etsi_ts/136300_136399/136331/13.08.01_60/ts_13633		
_ ZO _ I	1v130801n ndf		
	<u>1v130801p.pdf</u>		
27	<u>1v130801p.pdf</u>		
	<u>1v130801p.pdf</u> COMPLAINT FOR PATENT INFRINGEMENT		

Cas	e 3:18-cv-01955-BTM-JMA Document 1 Filed 08/23/18 PageID.8 Page 8 of 15		
1	– TimeToTrigger		
2	The IE <i>TimeToTrigger</i> specifies the value range used for time to trigger parameter, which concerns the time during which specific criteria for the event needs to be met in order to trigger a measurement report. Value ms0 corresponds to 0 ms and behaviour as specified in 7.3.2 applies, ms40 corresponds to 40 ms, and so on.		
3	TimeToTrigger information element		
4	ASNISTART		
5	TimeToTrigger ::= ENUMERATED { ms0, ms40, ms64, ms80, ms100, ms128, ms160, ms256, ms320, ms480, ms512, ms640, ms1024, ms1280, ms2560,		
6	ms5120) ASNISTOP		
7	ETSI TS 136 331 V13.8.1 (2018-01) at 6.3.5 (p. 437)		
8	https://www.etsi.org/deliver/etsi_ts/136300_136399/136331/13.08.01_60/ts_13633		
9	<u>1v130801p.pdf</u> 5.5.4 Measurement report triggering		
10	5.5.4.1 General		
11	If security has been activated successfully, the UE shall:		
12	1> for each measId included in the measIdList within VarMeasConfig. 20 100 and 10 a		
13	2> if the triggerType is set to event and if the entry condition applicable for this event, i.e. the event corresponding with the eventId of the corresponding reportConfig within VarMeasConfig, is fulfilled for one or more applicable cells for all measurements after layer 3 filtering taken during timeToTrigger defined for		
14	this event within the VarMeasConfig, while the VarMeasReportList does not include an measurement reporting entry for this measId (a first cell triggers the event):		
15	ETSI TS 136 331 V13.8.1 (2018-01)		
16	20. LG has thus infringed and continues to infringe at least claim 13 of the		
17	'637 patent by making, using, testing, selling, offering for sale, importing and/or		
18	licensing the Accused Infringing Devices.		
19	21. LG's acts of direct infringement have caused, and continue to cause,		
20	damage to CellTran, and CellTran is entitled to recover damages sustained as a		
21	result of LG's wrongful acts in an amount subject to proof at trial.		
22	COUNT 2: INFRINGEMENT OF THE '425 PATENT		
23	22. The allegations of paragraphs 1-8 of this Complaint are incorporated		
24	by reference as though fully set forth herein.		
25	23. CellTran owns by assignment the entire right, title, and interest in the		
26	'425 patent.		
27	24. The '425 patent was issued by the United States Patent and Trademark		
28	Office on February 6, 2018, and is titled "Methods and Apparatus for Performing		
	COMPLAINT FOR PATENT INFRINGEMENT -7-		

Handoff Based on the Mobility of a Subscriber Station." A true and correct copy of
 the '425 patent is attached as Exhibit B.

25. Upon information and belief, LG has infringed at least claim 7 of the
'425 patent by making, using, testing, selling, offering for sale, importing and/or
licensing in the United States licensed assisted access (LAA) mobile devices,
including at least the V30 & V30+, V30S ThinQ, G7 ThinQ, V35 ThinQ, and V40
ThinQ smartphones (collectively the "Accused Infringing Devices") in an
exemplary manner as described below.

9 26. The Accused Infringing Devices are subscriber stations, sometimes
10 referred to as user equipment ("UE"), which support LTE-Advanced connectivity
11 and LAA technology.



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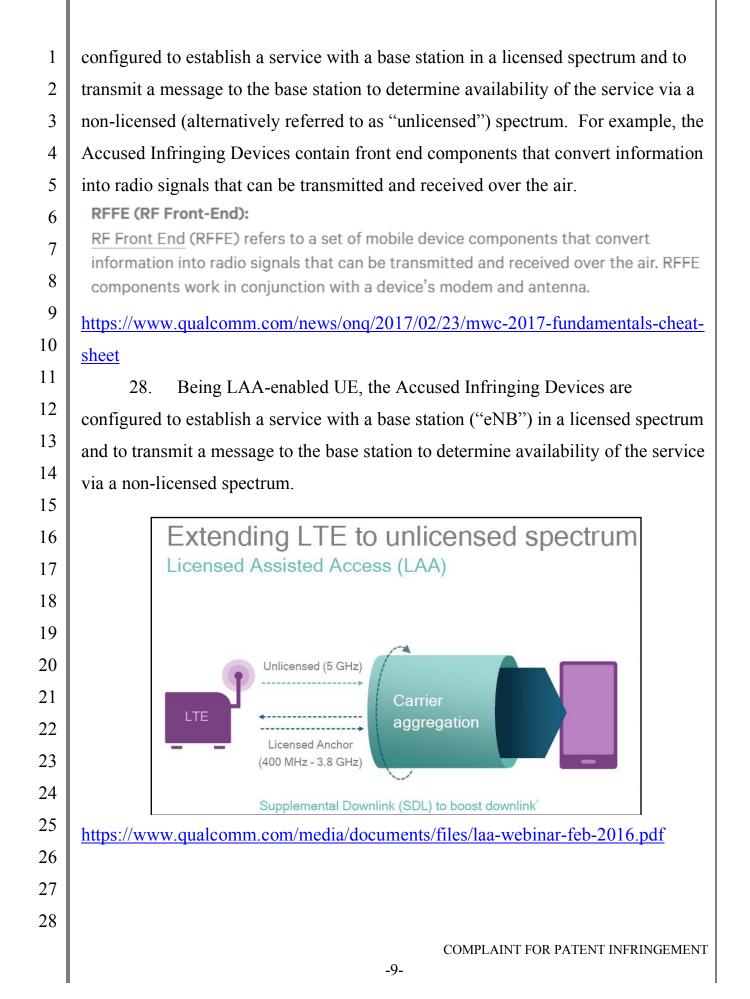
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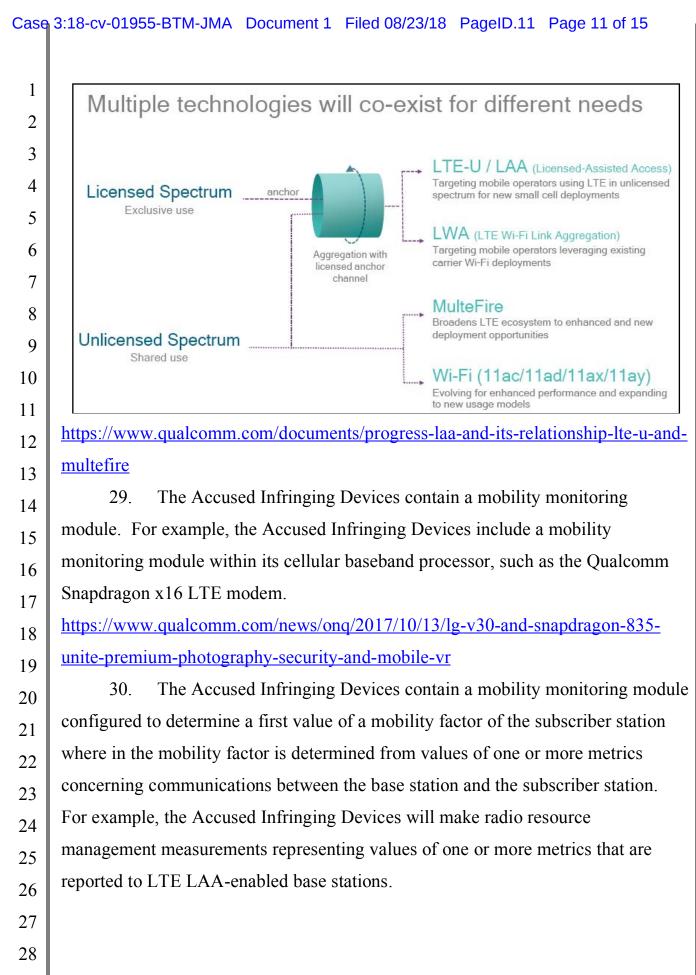
The V30 is equipped with the <u>Qualcomm Snapdragon X16 LTE modem</u>, and it supports some the most advanced LTE features of any smartphone. This includes Gigabit LTE for incredibly fast download speeds that enhance all connected apps, 4x4 MIMO technology with double the number of antennas of typical smartphones for fast speeds in weak signal areas, and LAA technology for fast speeds in crowded places. In addition, it's the first phone to support LTE connections in the 600-MHz band, giving it superior coverage on compatible networks. In all, these advanced wireless features are designed to provide users the speed and coverage they need for high-quality video and music streaming, VR immersion, and near-instantaneous access to files in the cloud.

https://www.qualcomm.com/news/onq/2017/10/13/lg-v30-and-snapdragon-835-

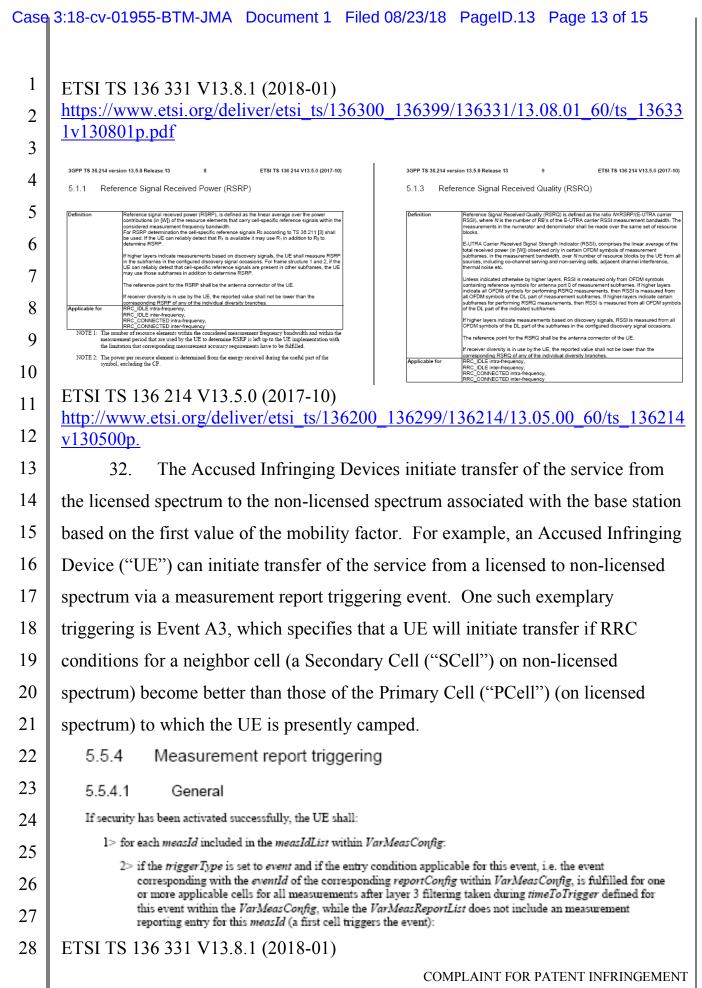
- <u>unite-premium-photography-security-and-mobile-vr</u> 27. The Accused Infringing Devices contain a front end module

COMPLAINT FOR PATENT INFRINGEMENT





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1	5.5 Measurements			
2	5.5.1 Introduction			
3	The UE reports measurement information in accordance with the measurement configuration as provided by E-			
4	UTRAN. E-UTRAN provides the measurement configuration applicable for a UE in RRC_CONNECTED by means of dedicated signalling, i.e. using the RRCConnectionReconfiguration or RRCConnectionResume message.			
5	The UE can be requested to perform the following types of measurements:			
6	 Intra-frequency measurements: measurements at the downlink carrier frequency(ies) of the serving cell(s). 			
7	 Inter-frequency measurements: measurements at frequencies that differ from any of the downlink carrier frequency(ies) of the serving cell(s). 			
8	 Inter-RAT measurements of UTRA frequencies. 			
9	 Inter-RAT measurements of GERAN frequencies. 			
10	 Inter-RAT measurements of CDMA2000 HRPD or CDMA2000 1xRTT or WLAN frequencies. 			
11	ETSI TS 136 331 V13.8.1 (2018-01)			
12	https://www.etsi.org/deliver/etsi_ts/136300_136399/136331/13.08.01_60/ts_13633 1v130801p.pdf			
13	31. The Accused Infringing Devices use metrics including one or more of			
14				
15	frequency offsets, correlations of known signals, and variation of received signal			
16	power. For example, the Accused Infringing Devices use metrics such as RSSI,			
17	RSPR, and RSRQ, which represent and/or provide one or more frequency offsets,			
	correlations of known signals and variation of signal power. 6.3.6 Other information elements			
18	0.5.0 Other mornation elements			
19	 UE-EUTRA-Capability 			
20	The IE UE-EUTRA-Capability is used to convey the E-UTRA UE Radio Access Capability Parameters, see TS 36.306 [5], and the Feature Group Indicators for mandatory features (defined in Annexes B.1 and C.1) to the network. The IE UE-EUTRA-Capability is transferred in E-UTRA or in another RAT.			
21	crossCarrierSchedulingLAA-DL			
22	Indicates whether the UE supports cross-carrier scheduling from a licensed carrier for LAA cell(s) for downlink. This field can be included only if <i>downlinkLAA</i> is included.			
23	csi-RS-DRS-RRM-MeasurementsLAA Indicates whether the UE supports performing RRM measurements on LAA cell(s) based on			
24	CSI-RS-based DRS. This field can be included only if <i>downlinkLAA</i> is included.			
25	downlinkLAA Presence of the field indicates that the UE supports downlink LAA operation including			
26	identification of downlink transmissions on LAA cell(s) for full downlink subframes, decoding of common downlink control signalling on LAA cell(s), CSI feedback for LAA cell(s), RRM			
27	measurements on LAA cell(s) based on CRS-based DRS.			
28	rssi-AndChannelOccupancyReporting Indicates whether the UE supports performing measurements and reporting of RSSI and channel occupancy. This field can be included only if <i>downlinkLAA</i> is included.			
	COMPLAINT FOR PATENT INFRINGEMENT			
	-11-			



1	33.	LG has thus infringed and continues to infringe at least claim 7 of the		
2	'425 patent by making, using, testing, selling, offering for sale, importing and/or			
3	licensing the Accused Infringing Devices.			
4	34.	LG's acts of direct infringement have caused, and continue to cause,		
5	damage to CellTran, and CellTran is entitled to recover damages sustained as a			
6	result of LG's wrongful acts in an amount subject to proof at trial.			
7	PRAYER FOR RELIEF			
8		WHEREFORE, CellTran respectfully requests the following relief:		
9	А.	A judgment that LG has infringed the '637 patent;		
10	B.	A judgment that LG has infringed the '425 patent;		
11	C.	A judgment that CellTran be awarded damages adequate to		
12	compensate	e it for LG's past infringement and any continuing or future infringement		
13	of the '637 patent and the '425 patent, including pre-judgment and post-judgment			
14	interest cost	ts and disbursements as justified under 35 U.S.C. § 284 and an		
15	accounting;			
16	D.	That this be determined to be an exceptional case under 35 U.S.C. §		
17	285 and that CellTran be awarded enhanced damages up to treble damages for			
18	willful infringement as provided by 35 U.S.C. § 284;			
19	E.	That CellTran be granted its reasonable attorneys' fees in this action;		
20	F.	That this Court award CellTran its costs; and		
21	G.	That this Court award CellTran such other and further relief as the		
22	Court deem	s proper.		
23		DEMAND FOR JURY TRIAL		
24	Pursi	ant to Rule 38(b) of the Federal Rules of Civil Procedure, CellTran		
25	demands a	trial by jury for all issues so triable.		
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		COMPLAINT FOR PATENT INFRINGEMENT -13-		
		-1.3-		

Case 3:18-cv-01955-BTM-JMA Document 1 Filed 08/23/18 PageID.15 Page 15 of 15 Dated: August 23, 2018 By /s/ Marc Belloli Marc Belloli (SBN 244290) mbelloli@feinday.com FEINBERG DAY ALBERTI LIM & BELLOLI LLP 1600 El Camino Real, Suite 280 Menlo Park, CA 94025 Telephone: 650 618-4360 Facsimile: 650 618-4368 Attorneys for Plaintiff Cellular Transitions, LLC