

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Not for submission under 37 CFR 1.99)	<b>Application Number</b>		14/449498
	<b>Filing Date</b>		08/01/2014
	<b>First Named Inventor</b>	Li Chen	
	<b>Art Unit</b>		
	<b>Examiner Name</b>		
	<b>Attorney Docket Number</b>		2013-06_5000-0153

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		294798 7		1960-08-02	Dodington	
		364655 9		1972-02-29	Wiley	
		504778 7		1991-09-10	Hogberg	
		518943 4		1993-02-23	Bell	
		546340 6		1995-10-31	Vannatta	
		561710 2		1997-04-01	Prater	
		606959 0		2000- 05-30	Thompson	
		614153 9	A	2000-10-31	Marino, Ronald A.	
		650988 3		2003-01-21	Foti	
		657386 9		2003-06-03	Moore	
		687633 7		2005-04-05	Larry	

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Not for submission under 37 CFR 1.99)	<b>Application Number</b>		14/449498
	<b>Filing Date</b>		08/01/2014
	<b>First Named Inventor</b>	Li Chen	
	<b>Art Unit</b>		
	<b>Examiner Name</b>		
	<b>Attorney Docket Number</b>		2013-06_5000-0153

		689780 8		2005- 05- 24	Murch	
		693064 2		2005-08- 16	Kossiavas	
		718794 5		2007-03- 06	Ranta	
		725149 9		2007-07- 31	Ella	
		734027 7		2008-03- 04	Nakamura	

**U.S.PATENT APPLICATION PUBLICATIONS**

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		2005/020 0535		2005-09- 15	Elkobi	
		2006/005 0009		2006-03- 09	Ho	
		2007/006 0089		2007-03- 15	Owen	

**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup>	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
-------------------	---------	--------------------------------------	---------------------------	------------------------	------------------	---	--	----------------

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Not for submission under 37 CFR 1.99)	<b>Application Number</b>		14/449498
	<b>Filing Date</b>		08/01/2014
	<b>First Named Inventor</b>	Li Chen	
	<b>Art Unit</b>		
	<b>Examiner Name</b>		
	<b>Attorney Docket Number</b>		2013-06_5000-0153

<b>NON-PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
		, "PCT International Search Report and Written Opinion for International Application No. PCT/US07/76667", Date of Mailing: August 20, 2008,	
		, "PCT International Search Report and Written Opinion for International Application No. PCT/US08/60723", Date of Mailing: August 6, 2008,	
		ANDERSON, et al., "Decoupling and Descattering Networks for Antennas", IEEE Transactions On Antennas And Propagation, November 1976,	
		CAIMI, FRANK M. et al., "ANTENNA STRUCTURES AND METHODS THEREOF", U.S. Serial No. 14/285,262 filed May 22, 2014, Attorney Docket No. 5000-0192,	
		CAIMI, FRANK M. et al., "U.S. Patent Application 14/257,592", ANTENNA STRUCTURES AND METHODS THEREOF, Attorney Docket No. 5000-0148, filed April 21, 2014,	
		CAIMI, FRANK M. et al., "U.S. Patent Application 14/257,624", ANTENNA STRUCTURES AND METHODS THEREOF, Attorney Docket No. 5000-0190, filed April 21, 2014,	
		DIALLO, A. et al., "Efficient Two-Port Antenna System For GSM/DCS/UMTS Multimode Mobile Phones", ELECTRONICS LETTERS, March 29, 2007 Vol. 43 No,	

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Not for submission under 37 CFR 1.99)	<b>Application Number</b>		14/449498
	<b>Filing Date</b>		08/01/2014
	<b>First Named Inventor</b>	Li Chen	
	<b>Art Unit</b>		
	<b>Examiner Name</b>		
	<b>Attorney Docket Number</b>		2013-06_5000-0153

		DIALLO, A. et al., "Enhanced Diversity Antennas For Umts Handsets", Antennas and Propagation, 2006. EuCAP 2006. First European Conference,	
		DIALLO, A. et al., "Estimation Of The Diversity Performance Of Several Two-Antenna Systems In Different Propagation Environments", Antennas and Propagation Society International Symposium, 2007 IEEE,	
		DIALLO, A. et al., "Evaluation Of The Performances Of Several Four-Antenna Systems In A Reverberation Chamber", Antenna Technology: Small and Smart Antennas Metamaterials and Applications, 2007. IWAT '07.,	
		DIALLO, A. et al., "MIMO Performance Of Enhanced UMTS Four-Antenna Structures For Mobile Phones In The Presence Of The User's Head", Antennas and Propagation Society International Symposium, 2007 IEEE,	
		DIALLO, A. et al., "Reverberation Chamber Evaluation Of Multi-Antenna Handsets Having Low Mutual Coupling And High Efficiencies", In proceeding of: Proceedings of the European Conference on Antennas and Propagation EuCAP 2006, 6-10 Nov. 2006,	
		DIALLO, A. et al., "Study and Reduction of the Mutual Coupling Between Two Mobile Phone PIFAs Operating in the DCS1800 and UMTS Bands", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, VOL. 54, NO. 11, NOVEMBER 2006,	
		DOSSCHE, et al., "Three Different Ways To Decorrelate Two Closely Spaced Monopoles For MIMO Applications", IEEE 2005,	
		FOLTZ, et al., "Multielement Top-loaded Vertical Antennas with Mutually Isolated Input Ports", University of Texas, Pan American, Electrical Engineering, pgs. 1-24, GloMo 1998,	

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE                  STATEMENT BY APPLICANT</b> (Not for submission under 37 CFR 1.99)	<b>Application Number</b>		14/449498
	<b>Filing Date</b>		08/01/2014
	<b>First Named Inventor</b>	Li Chen	
	<b>Art Unit</b>		
	<b>Examiner Name</b>		
	<b>Attorney Docket Number</b>		2013-06_5000-0153

		KO, et al., "Compact Integrated Diversity Antenna for Wireless Communications", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, VOL. 49, NO.6, JUNE 2001,	
		LAU, et al., "Impact of Matching Network on Bandwidth of Compact Antenna Arrays", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, VOL. 54, NO. 11, NOVEMBER 2006,	
		RANVIER, et al., "Mutual Coupling Reduction For Patch Antenna Array", Proceedings of The European Conference on Antennas and Propagation: EuCAP 2006 (ESA SP-626). 6-10 November 2006,	
		RANVIER, S. et al., "Capacity Enhancement by Increasing Both Mutual Coupling and Efficiency: a Novel Approach", Antennas and Propagation Society International Symposium, 2007 IEEE,	
		STJERNMAN, et al., "Antenna Mutual Coupling Effects on Correlation, Efficiency and Shannon Capacity in MIMO Wireless Systems", EuCAP 2006 - European Conference on Antennas & Propagation, November 06, 2006,	
		WALLACE, et al., "Mutual Coupling in MIMO Wireless Systems: A Rigorous Network Theory Analysis", Wireless Communications, IEEE Transactions, July 2004,	
		WALLACE, et al., "Termination-Dependent Diversity Performance of Coupled Antennas: Network Theory Analysis", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, VOL. D 52, NO. 1, JANUARY 2004,	
		WALLACE, et al., "The Capacity of MIMO Wireless Systems with Mutual Coupling", Vehicular Technology Conference, 2002. Proceedings. VTC 2002-Fall. 2002 IEEE 56th (Volume:2 ),	

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Not for submission under 37 CFR 1.99)	<b>Application Number</b>		14/449498
	<b>Filing Date</b>		08/01/2014
	<b>First Named Inventor</b>	Li Chen	
	<b>Art Unit</b>		
	<b>Examiner Name</b>		
	<b>Attorney Docket Number</b>		2013-06_5000-0153

<b>EXAMINER SIGNATURE</b>			
Examiner Signature	/Dhaval Patel/	Date Considered	04/14/2015
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>			
<p><sup>1</sup> See Kind Codes of USPTO Patent Documents at <a href="http://www.USPTO.GOV">www.USPTO.GOV</a> or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.  <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.</p>			

<b>CERTIFICATION STATEMENT</b>			
Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):			
<input type="checkbox"/> That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e) (1).			
<b>OR</b>			
<input type="checkbox"/> That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e) (2).			
<input type="checkbox"/> See attached certification statement.			
<input type="checkbox"/> Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.			
<input checked="" type="checkbox"/> None			
<b>SIGNATURE</b>			
A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.			
Signature	/Douglas Schnabel/	Date (YYYY-MM-DD)	
Name/Print	Douglas Schnabel	Registration Number	47927

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Not for submission under 37 CFR 1.99)	<b>Application Number</b>		14/449498
	<b>Filing Date</b>		08/01/2014
	<b>First Named Inventor</b>	Li Chen	
	<b>Art Unit</b>		
	<b>Examiner Name</b>		
	<b>Attorney Docket Number</b>		2013-06_5000-0153

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**