

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM638912

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	RELEASE OF SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
JPMorgan Chase Bank, N.A., as Administrative Agent		04/07/2021	National Banking Association: UNITED STATES
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	MTS Systems Corporation		
<b>Street Address:</b>	14000 Technology Drive		
<b>City:</b>	Eden Prairie		
<b>State/Country:</b>	MINNESOTA		
<b>Postal Code:</b>	55344		
<b>Entity Type:</b>	Corporation: MINNESOTA		
<b>PROPERTY NUMBERS Total: 46</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	1259226	FLAT-TRAC	
<b>Registration Number:</b>	1432777	MTS	
<b>Registration Number:</b>	1474537	MTS	
<b>Registration Number:</b>	1536146	TESTWARE	
<b>Registration Number:</b>	1592861	TESTWORKS	
<b>Registration Number:</b>	1655388	LEVEL PLUS	
<b>Registration Number:</b>	1672464	TEMPOSONICS	
<b>Registration Number:</b>	1748216	RPC	
<b>Registration Number:</b>	2210209	BIONIX	
<b>Registration Number:</b>	2343464	SWIFT	
<b>Registration Number:</b>	3171597	FLEXTEST	
<b>Registration Number:</b>	3188151	MTS INSIGHT	
<b>Registration Number:</b>	3211004	MTS EM EXTEND	
<b>Registration Number:</b>	3410991	ELASTOMEREXPRESS	
<b>Registration Number:</b>	3502460	MTS LANDMARK	
<b>Registration Number:</b>	3551966	JUST IN CASE	
<b>Registration Number:</b>	3873618	MTS	
<b>Registration Number:</b>	3978558	BE CERTAIN.	
<b>Registration Number:</b>	3988292	MTS	
<b>TRADEMARK</b>			

CH \$1165.00 1259226

Property Type	Number	Word Mark
Registration Number:	4049624	BE CERTAIN.
Registration Number:	4055095	MTS
Registration Number:	4070960	BE CERTAIN.
Registration Number:	4139601	MTS CRITERION
Registration Number:	4389263	MTS ACUMEN
Registration Number:	4584972	ECHO
Registration Number:	4584973	MTS ECHO
Registration Number:	4754964	MTS SENSORS
Registration Number:	4754965	MTS SENSORS
Registration Number:	4828088	EXCEED
Registration Number:	4837679	MTS EXCEED
Registration Number:	4905358	FLAT-TRAC
Registration Number:	0848613	MTS
Serial Number:	86415503	MTS SENSORS
Serial Number:	86415514	MTS SENSORS
Serial Number:	86517836	TANK SLAYER
Serial Number:	86517840	SOCLEAN
Serial Number:	86517845	REFINEME
Serial Number:	86591374	MTS CONCORD
Serial Number:	86591383	CONCORD
Serial Number:	86860516	LANDMARK
Serial Number:	86860545	ACUMEN
Serial Number:	86860551	CRITERION
Serial Number:	86912108	RENEW
Serial Number:	86912113	MTS RENEW
Serial Number:	86919850	RIPL
Serial Number:	87039317	MTS INSIGHT

**CORRESPONDENCE DATA**

Fax Number: 2149813400

*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.*

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ATTORNEY DOCKET NUMBER: 99431-10020

<b>NAME OF SUBMITTER:</b>	Dusan Clark
<b>SIGNATURE:</b>	/Dusan Clark/
<b>DATE SIGNED:</b>	04/13/2021
<b>Total Attachments: 16</b> source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page1.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page2.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page3.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page4.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page5.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page6.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page7.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page8.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page9.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page10.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page11.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page12.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page13.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page14.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page15.tif source=MTS_ Executed Termination of IP Security Agreement 266738318_1#page16.tif	

**RELEASE OF SECURITY INTEREST  
IN INTELLECTUAL PROPERTY COLLATERAL**

This **RELEASE OF SECURITY INTEREST IN INTELLECTUAL PROPERTY COLLATERAL** (this "Release"), dated as of April 7, 2021, is made by **JPMORGAN CHASE BANK, N.A.**, as Administrative Agent (the "Administrative Agent"), under the Credit Agreement referred to below (terms used in this Release and not herein defined shall have the meanings set forth in the Credit Agreement).

**WHEREAS**, in connection with that certain Credit Agreement, dated as of July 5, 2016 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among MTS Systems Corporation, a Minnesota corporation ("Company"), the Foreign Subsidiary Borrowers party thereto (together with the Company, the "Borrowers"), the Lenders party thereto and Administrative Agent, the Lenders have agreed to make loans and extend other financial accommodations to or for the benefit of the Borrowers;

**WHEREAS**, the Company and certain Subsidiary Guarantors (the "Grantors") entered into that certain Pledge and Security Agreement dated as of July 5, 2016 (as may be amended, restated, supplemented or otherwise modified from time to time, the "Security Agreement");

**WHEREAS**, in connection with the Credit Agreement, Security Agreement and pursuant to those certain agreements described on Annex I attached hereto (collectively, the "IP Security Agreements"), the Grantors granted security interests in the certain intellectual property owned by the Grantors, including those listed on Annex I attached hereto (the "IP Collateral"); and

**WHEREAS**, the IP Security Agreements were recorded in the United States Patent and Trademark Office or the United States Copyright Office, as applicable, on the dates and on the reels/frames or volume/document no., as applicable, set forth on Annex I hereto.

**NOW THEREFORE**, in consideration of the material covenants and agreements set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Administrative Agent hereby **RELEASES**, terminates and discharges, without representation, recourse or warranty whatsoever, all of its rights in, to and under, including its Lien on and security interest in, and right of setoff against, the IP Collateral, whether granted pursuant to the Security Agreement, the IP Security Agreements or any other agreement or document delivered in connection with the Credit Agreement, and the Administrative Agent hereby reassigns any and all such right, title and interest (if any) that the Administrative Agent may have in, to and under the IP Collateral to the relevant Grantor.

The Administrative Agent agrees, at Grantor's expense, to cooperate with Grantor and to provide Grantor with the information and additional authorization reasonably required or desirable to effect the release of the Administrative Agent's security interest in the released collateral described herein.

This Release and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York.

[Signature Page Follows]

IN WITNESS WHEREOF, the Administrative Agent has executed this Release as of the date first above written.

JPMORGAN CHASE BANK, N.A.,  
as Administrative Agent

By:   
Name: Richard Barritt  
Title: Executive Director

[Signature Page to Release of Security Interest in Intellectual Property Collateral]

TRADEMARK  
REEL: 007253 FRAME: 0779

Supplemental Confirmatory Grant of Security Interest in United States Copyrights dated as of July 5, 2016, by PCB Piezotronics, Inc., a New York corporation, in favor of Administrative Agent, was recorded with the United States Copyright Office on July 25, 2016 at Volume/Doc No. 9922/081.

Title	Registration No.	Grantor
LOW IMPEDANCE QUARTZ ACCELEROMETERS, SERIES 300	TX0001465351	PCB PIEZOTRONICS, INC.
PCB PIEZOTRONICS, INC : [CATALOG]	TX0001493747	PCB PIEZOTRONICS, INC.
CHARGE & VOLTAGE MODE QUARTZ FORCE SENSORS, SERIES 200	TX0001646619	PCB PIEZOTRONICS, INC.
IMPULSE HAMMER KITS FOR TESTING STRUCTURAL BEHAVIOR	TX0001710521	PCB PIEZOTRONICS, INC.
MODALLY TUNED IMPACT HAMMER KITS FOR TESTING STRUCTURAL BEHAVIOR	TX0001710522	PCB PIEZOTRONICS, INC.
PCB--SUSQUEHANNA (SHOCK + BLAST WAVE SENSORS)	TX0001716682	PCB PIEZOTRONICS, INC.
SMART SENSING : CATALOG G-500	TX0002526297	PCB PIEZOTRONICS, INC.
MACHINERY MONITORING SYSTEM	TX0002653898	PCB PIEZOTRONICS, INC.
LOW IMPEDANCE QUARTZ PRESSURE TRANSDUCERS : SER. 100	VA0000171154	PCB PIEZOTRONICS, INC.
MODAL ARRAY SENSING SYSTEMS : STRUCTCEL-FLEXCEL DATA HARVESTER	TX0002762818	PCB PIEZOTRONICS, INC.
INTRODUCING THE STRUCTCEL STRUCTURAL ACCELEROMETER SYSTEM	TX0002766767	PCB PIEZOTRONICS, INC.
STRUCTCEL MODAL ARRAY SENSING SYSTEM	TX0002766768	PCB PIEZOTRONICS, INC.
WHY ARE THESE PEOPLE UNHAPPY?	TX0002958856	PCB PIEZOTRONICS, INC.
MACHINERY VIBRATION MEASUREMENT & MONITORING INSTRUMENTATION	TX0003079262	PCB PIEZOTRONICS, INC.
ICP SENSORS, SIGNAL CONDITIONING & CALIBRATION EQUIPMENT FOR DYNAMIC MEASUREMENTS	TX0003235899	PCB PIEZOTRONICS, INC.
HIGH PERFORMANCE QUARTZ-SHEAR ICP ACCELEROMETERS, SERIES 353	TX0003269619	PCB PIEZOTRONICS, INC.
MACHINERY VIBRATION MEASUREMENT & MONITORING INSTRUMENTATION	TX0003385704	PCB PIEZOTRONICS, INC.
VIBRATION AND SHOCK SENSOR SELECTION GUIDE : PLEZOELECTRIC ACCELEROMETERS	TX0003578034	PCB PIEZOTRONICS, INC.
MODAL SENSING SYSTEM GUIDE	TX0003639908	PCB PIEZOTRONICS, INC.
ACTIVE VIBRATION CONTROL INSTRUMENTATION : CATALOG 701	TX0003748827	PCB PIEZOTRONICS, INC.
ELECTRONICS FOR PIEZOELECTRIC SENSORS : ESG-603	TX0003770168	PCB PIEZOTRONICS, INC.
FORCE PIEZOELECTRIC SENSOR SELECTION GUIDE FOR DYNAMIC MEASUREMENTS-- CATALOG FSG-605	TX0003940426	PCB PIEZOTRONICS, INC.
ACCELEROMETERS FOR HAZARDOUS ENVIRONMENTS	TX0004194168	PCB PIEZOTRONICS, INC.
MULTICHANNEL SIGNAL CONDITIONERS FOR USE WITH ICP SENSORS	TX0004194202	PCB PIEZOTRONICS, INC.
WHAT'S NEW	TX0004253939	PCB PIEZOTRONICS, INC.
MODAL, NVH, IMPACT AND STRUCTURAL TEST	TX0004253941	PCB PIEZOTRONICS, INC.

Title	Registration No.	Grantor
SENSING SYSTEM		
INDUSTRIAL VIBRATION SENSORS AND ACCESSORIES : SHORT FORM IMI SFC-10	TX0004253944	PCB PIEZOTRONICS, INC.
DYNAMIC SENSING INSTRUMENTATION : SHORT FORM CATALOG SFC-30	TX0004253945	PCB PIEZOTRONICS, INC.
HIGH SENSITIVITY CHARGE OUTPUT CERAMIC-SHEAR ACCELEROMETERS : SER. 357	VA0000529833	PCB PIEZOTRONICS, INC.
CABLE DRIVE NOMOGRAPH	VA0000563091	PCB PIEZOTRONICS, INC.

Supplemental Confirmatory Grant of Security Interest in United States Patents dated as of July 5, 2016, by MTS Systems Corporation, a Minnesota corporation, in favor of Administrative Agent, was recorded with the U.S. Patent and Trademark Office on July 5, 2016 at Reel/Frame No. 039258/0587.

Title	Application No.	Filing Date	Patent No.	Issue Date	Grantor
METHOD TO EXTEND TESTING THROUGH INTEGRATION OF MEASURED RESPONSES VIRTUAL MODELS	11/004,308	12/3/2004	7,383,738	6/10/2008	MTS Systems Corporation
APPARATUS AND METHOD FOR AUTONOMOUS CONTROL AND BALANCE OF A VEHICLE AND FOR IMPARTING ROLL AND YAW MOMENTS ON A VEHICLE FOR TEST PURPOSES	13/842,408	3/15/2013	9,310,808	4/12/2016	MTS Systems Corporation
AUTOPILOT SYSTEM FOR USE IN A WIND TUNNEL	12/558,972	9/14/2009	8,788,116	7/22/2014	MTS Systems Corporation
AXLE FORCE AND MOMENT TRANSDUCER	09/289,312	4/9/1999	6,308,583	10/30/2001	MTS Systems Corporation
BIPOLAR INTERROGATION FOR MAGNETOSTRICTIVE TRANSDUCERS	11/935,879	11/6/2007	7,612,554	11/3/2009	MTS Systems Corporation
BIPOLAR INTERROGATION FOR MAGNETOSTRICTIVE TRANSDUCERS	10/419,447	4/21/2003	7,292,025	11/6/2007	MTS Systems Corporation
BLAST SIMULATOR WITH HIGH VELOCITY ACTUATOR	11/704,641	2/8/2007	7,726,124	6/1/2010	MTS Systems Corporation
CONSTRUCTION ELEMENT FOR LOCKING RING MAGNETS IN BORE HOLES	10/931,484	9/1/2004	7,355,498	4/8/2008	MTS Systems Corporation
CONTROL METHODOLOGY FOR A MULTI-AXIAL WHEEL FATIGUE SYSTEM	11/155,900	6/17/2005	7,254,995	8/14/2007	MTS Systems Corporation
CONTROL SYSTEM FOR DEPOSITING POWDER TO A MOLTEN PUDDLE	09/707,186	11/6/2000	6,605,795	8/12/2003	MTS Systems Corporation
COUNTERBALANCE FOR A PLATFORM BALANCE	11/389,519	3/25/2006	7,348,502	3/25/2008	MTS Systems Corporation
DRUM BRAKING SYSTEM FOR ROLLING WHEEL TESTING APPARATUS	09/398,338	9/17/1999	6,622,550	9/23/2003	MTS Systems Corporation
ELECTROMAGNETIC METHOD OF LIQUID LEVEL MONITORING	10/253,122	9/24/2002	6,564,658	5/20/2003	MTS Systems Corporation
ELECTROMAGNETIC METHOD OF LIQUID LEVEL MONITORING	09/134,056	8/14/1998	6,293,142	9/25/2001	MTS Systems Corporation
ELECTROMAGNETIC METHOD OF THE ANGULAR DISPLACEMENT MONITORING	09/379,840	8/24/1999	6,393,912	5/28/2002	MTS Systems Corporation
EXTENSOMETER STRUCTURE	08/730,789	10/16/1996	5,712,430	1/27/1998	MTS Systems Corporation



Title	Application No.	Filing Date	Patent No.	Issue Date	Grantor
FLAT BELT ROADWAY SIMULATOR WITH STEER AND/OR CAMBER ADJUSTMENT AND METHOD FOR ASCERTAINING ROLLING LOSS	12/480,934	6/9/2009	7,908,916	3/22/2011	MTS Systems Corporation
FOLDED MAGNETOSTRICTIVE WAVE GUIDE	10/654,409	9/3/2003	6,919,779	7/19/2005	MTS Systems Corporation
GENERATING A NONLINEAR MODEL AND GENERATING DRIVE SIGNALS FOR SIMULATION TESTING USING THE SAME	09/420,023	10/18/1999	6,285,972	9/4/2001	MTS Systems Corporation
HEAD ASSEMBLY FOR A MATERIAL TESTING MACHINE AND METHOD OF SERVICING THE SAME	13/835,972	3/15/2013	9,121,791	9/1/2015	MTS Systems Corporation
HIGH AXIAL STIFFNESS SWIVEL JOINT	11/835,264	8/7/2007	7,802,939	9/28/2010	MTS Systems Corporation
HIGH AXIAL STIFFNESS SWIVEL JOINT	10/021,151	12/7/2001	6,758,623	7/6/2004	MTS Systems Corporation
HOUSING FOR A MATERIAL TESTING MACHINE	D/465,727	8/30/2013	D728,401	5/5/2015	MTS Systems Corporation
HOUSING FOR A MATERIAL TESTING MACHINE	D/422,376	5/18/2012	D691,501	10/15/2013	MTS Systems Corporation
INTEGRATED CENTRAL MANIFOLD FOR ORTHOPEDIC SIMULATOR	11/649,961	1/5/2007	7,824,184	11/2/2010	MTS Systems Corporation
LINEAR ACTUATOR ASSEMBLY	13/840,295	3/15/2013	9,270,155	2/23/2016	MTS Systems Corporation
LINEAR AND ROTARY MAGNETIC SENSOR	09/801,318	3/7/2001	6,600,310	7/29/2003	MTS Systems Corporation
LOADING ASSEMBLY FOR A VEHICLE SPINDLE TEST FIXTURE	09/389,563	9/3/1999	6,640,638	11/4/2003	MTS Systems Corporation
LOADING ASSEMBLY FOR A VEHICLE SPINDLE TEST FIXTURE	09/304,910	5/4/1999	6,257,055	7/10/2001	MTS Systems Corporation
LOADING ASSEMBLY HAVING A SOFT ACTUATOR	09/438,010	11/10/1999	6,457,369	10/1/2002	MTS Systems Corporation
MAGNETOSTRICTIVE DISPLACEMENT TRANSDUCER WITH PHASE SHIFTED BIAS BURST	11/956,431	12/14/2007	8,054,066	11/8/2011	MTS Systems Corporation
MAGNETOSTRICTIVE DISPLACEMENT TRANSDUCER WITH SUPPRESSION OF SWITCHING POWER SUPPLY NOISE	11/956,427	12/14/2007	8,427,137	4/23/2013	MTS Systems Corporation
MAGNETOSTRICTIVE ELONGATION SENSOR	11/439,890	2/22/2005	8,035,372	10/11/2011	MTS Systems Corporation
MAGNETOSTRICTIVE LINEAR	08/828,193	3/21/1997	5,952,823	9/14/1999	MTS Systems

Title	Application No.	Filing Date	Patent No.	Issue Date	Grantor
DISPLACEMENT TRANSDUCER FOR A SHOCK ABSORBER					Corporation
MAGNETOSTRICTIVE LINEAR DISPLACEMENT TRANSDUCER FOR A VEHICLE STEERING SYSTEM	09/666,930	9/21/2000	6,528,990	3/4/2003	MTS Systems Corporation
MAGNETOSTRICTIVE LINEAR DISPLACEMENT TRANSDUCER FOR A VEHICLE STRUT SUSPENSION	09/321,176	5/27/1999	6,707,290	3/16/2004	MTS Systems Corporation
MEASURING SYSTEM REPEATABLE BANDWIDTH FOR SIMULATION TESTING	09/439,169	11/12/1999	6,385,564	5/7/2002	MTS Systems Corporation
MECHANISM ARRANGEMENT FOR ORTHOPEDIC SIMULATOR	11/649,959	1/5/2007	8,156,824	4/17/2012	MTS Systems Corporation
METHOD AND APPARATUS FOR GENERATING INPUT SIGNALS IN A PHYSICAL SYSTEM	10/057,294	11/8/2001	7,031,949	4/18/2006	MTS Systems Corporation
METHOD FOR HIGH RESOLUTION MEASUREMENT OF A POSITION	09/125,334	11/23/1996	6,369,563	4/9/2002	MTS Systems Corporation
METHOD OF ASCERTAINING CONTROL PARAMETERS FOR A CONTROL SYSTEM	10/323,707	12/18/2002	6,917,840	7/12/2005	MTS Systems Corporation
METHODS AND SYSTEMS FOR OFF-LINE CONTROL FOR SIMULATION OF COUPLED HYBRID DYNAMIC SYSTEMS	12/244,597	10/2/2008	8,135,556	3/13/2012	MTS Systems Corporation
MOTORCYCLE CORNERING SIMULATOR	09/961,794	9/24/2001	6,733,294	5/11/2004	MTS Systems Corporation
MULTI-AXIS LOAD CELL	10/017,740	12/14/2001	6,845,675	1/25/2005	MTS Systems Corporation
MULTI-AXIS LOAD CELL	08/892,914	7/15/1997	6,038,933	3/21/2000	MTS Systems Corporation
MULTI-AXIS LOAD CELL	09/026,458	2/19/1998	5,969,268	10/19/1999	MTS Systems Corporation
MULTIPLE DEGREE OF FREEDOM DISPLACEMENT TRANSDUCER	12/728,695	3/22/2010	7,975,397	7/12/2011	MTS Systems Corporation
MULTIPLE REGION CONVOLVER WITH TAPERING	09/960,626	9/21/2001	7,062,357	6/13/2006	MTS Systems Corporation
MULTI-STEER TESTING APPARATUS	09/453,318	12/2/1999	6,262,551	7/17/2001	MTS Systems Corporation
ORTHOPEDIC SIMULATOR WITH A MULTI-AXIS SLIDE TABLE ASSEMBLY	11/649,962	1/5/2007	7,913,573	3/29/2011	MTS Systems Corporation
ORTHOPEDIC SIMULATOR WITH FLUID CONCENTRATION MAINTENANCE ARRANGEMENT FOR CONTROLLING FLUID CONCENTRATION OF	11/649,954	1/5/2007	7,779,708	8/24/2010	MTS Systems Corporation

Title	Application No.	Filing Date	Patent No.	Issue Date	Grantor
SPECIMEN BATHS					
ORTHOPEDIC SIMULATOR WITH INTEGRAL LOAD ACTUATORS	11/649,963	1/5/2007	7,762,147	7/27/2010	MTS Systems Corporation
ORTHOPEDIC SIMULATOR WITH TEMPERATURE CONTROLLER ARRANGEMENT FOR CONTROLLING TEMPERATURE OF SPECIMEN BATHS	11/649,960	1/5/2007	7,770,446	8/10/2010	MTS Systems Corporation
OUTPUT SPINDLE SHAFT FOR A ROLLING WHEEL TESTING APPARATUS	09/398,739	9/17/1999	6,729,178	5/4/2004	MTS Systems Corporation
PERMANENT MULTI-POLE POSITION MAGNET	09/330,974	6/11/1999	6,271,660	8/7/2001	MTS Systems Corporation
PLATFORM BALANCE	11/501,665	8/8/2006	7,788,984	9/7/2010	MTS Systems Corporation
PLATFORM BALANCE	12/876,942	9/7/2010	7,918,143	4/5/2011	MTS Systems Corporation
POWDER FEED NOZZLE FOR LASER WELDING	09/366,792	8/4/1999	6,396,025	5/28/2002	MTS Systems Corporation
POWDER FEED NOZZLE FOR LASER WELDING	10/113,861	4/1/2002	6,696,664	2/24/2004	MTS Systems Corporation
RESTRAINT SYSTEM FOR RESTRAINING A TEST ARTICLE IN A SELECTED VERTICAL POSITION RELATIVE TO A MOVABLE BELT	12/396,900	3/3/2009	8,607,626	12/17/2013	MTS Systems Corporation
ROTARY POSITION SENSOR	09/531,573	3/21/2000	6,501,263	12/31/2002	MTS Systems Corporation
SCREW ACTION GRIP WITH ADJUSTABLE STIFFNESS AND ALIGNMENT GUIDES	09/513,253	2/24/2000	6,526,837	3/4/2003	MTS Systems Corporation
SELF-FLUSHING BOTTLE IN-LINE FLUID SAMPLER	12/392,458	2/25/2009	8,322,233	12/4/2012	MTS Systems Corporation
SENSOR CONTROLLER	09/410,408	10/1/1999	6,600,962	7/29/2003	MTS Systems Corporation
SPECIMEN CONTAINMENT MODULE FOR ORTHOPEDIC SIMULATOR	11/335,974	1/20/2006	7,654,150	2/2/2010	MTS Systems Corporation
SPHERICAL SWIVEL WITH ELASTOMERIC POSITIONING DEVICE	09/721,361	11/22/2000	6,431,987	8/13/2002	MTS Systems Corporation
SPINDLE ASSEMBLY FOR A TIRE OR WHEEL TESTING MACHINE	09/780,030	2/9/2001	6,584,835	7/1/2003	MTS Systems Corporation
SPINDLE MOUNTED TELEMETRY SYSTEM	10/083,939	2/27/2002	6,876,311	4/5/2005	MTS Systems Corporation
STRUT ASSEMBLY FOR TRANSFERRING LOAD FROM A MOVABLE BELT	12/396,856	3/3/2009	8,186,207	5/29/2012	MTS Systems Corporation
SYSTEM HAVING A HIGH	12/891,225	9/27/2010	8,113,733	2/14/2012	MTS Systems

Title	Application No.	Filing Date	Patent No.	Issue Date	Grantor
AXIAL STIFFNESS SWIVEL JOINT					Corporation
TEST SPECIMEN HOLDER	09/517,800	5/9/2001	6,629,466	10/7/2003	MTS Systems Corporation
TEST SPECIMEN HOLDER	11/558,595	11/10/2006	7,739,919	6/22/2010	MTS Systems Corporation
TEST SPECIMEN HOLDER	08/873,640	6/12/1997	5,945,607	8/31/1999	MTS Systems Corporation
TEST SYSTEM FOR MEASURING AND EVALUATING DYNAMIC BODY FORCES	13/655,514	10/19/2012	8,955,397	2/17/2015	MTS Systems Corporation
TESTING SYSTEM WITH SOFT REACTION STRUCTURE	11/478,164	6/29/2006	7,404,334	7/29/2008	MTS Systems Corporation
TORQUE TRANSFER COUPLING	12/848,706	8/2/2010	8,485,048	7/16/2013	MTS Systems Corporation
TRANSDUCER ACCELERATION COMPENSATION WITH FREQUENCY DOMAIN AMPLITUDE AND/OR PHASE COMPENSATION	11/242,762	10/4/2005	7,331,209	2/19/2008	MTS Systems Corporation
TRANSDUCER FOR A ROTATING BODY	11/835,829	8/8/2007	7,726,205	6/1/2010	MTS Systems Corporation
TRANSDUCER FOR MEASURING DISPLACEMENT OF A VEHICLE SPINDLE	09/772,317	1/26/2001	6,575,031	6/10/2003	MTS Systems Corporation
TRANSMISSION FOR TORQUE TRANSFER WITH AXIAL COMPLIANCE	11/332,407	1/13/2006	7,617,744	11/17/2009	MTS Systems Corporation
VEHICLE SUSPENSION STRUT HAVING A CONTINUOUS POSITION SENSOR	09/502,990	2/11/2000	6,401,883	6/11/2002	MTS Systems Corporation
MODULATION ERROR COMPENSATION FOR A ROTATING LOAD CELL	09/842,505	4/26/2001	6,631,337	10/7/2003	MTS Systems Corporation
WHEELPAN WITH DAMPING STRUCTURES	08/698,364	8/15/1996	5,744,708	4/28/1998	MTS Systems Corporation
WIND TURBINE DRIVE TRAIN TEST ASSEMBLY	12/848,714	8/2/2010	8,453,522	6/4/2013	MTS Systems Corporation
SERVO ACTUATOR LOAD VECTOR GENERATING SYSTEM	13/843,902	03/15/2013	9,328,747	5/3/2016	MTS Systems Corporation
CLOUD COMPUTING PLATFORM FOR MANAGING DATA	13/762,299	2/7/2013	N/A	N/A	MTS Systems Corporation
MOBILE APPLICATION TOOL AND GRAPHICAL USER INTERFACE	13/762,289	2/7/2013	N/A	N/A	MTS Systems Corporation
MOBILE COMMUNICATION PLATFORM FOR TEST SYSTEM APPLICATIONS	13/762,282	2/7/2013	N/A	N/A	MTS Systems Corporation
AIRFLOW DIVERTER FOR REDUCED	14/733,513	6/8/2015	N/A	N/A	MTS Systems Corporation

Title	Application No.	Filing Date	Patent No.	Issue Date	Grantor
SPECIMEN TEMPERATURE GRADIENT					
APPARATUS AND METHOD FOR CONTROL AND BALANCE ASSIST OF A VEHICLE	15/095,960	4/11/2016	N/A	N/A	MTS Systems Corporation
APPARATUS AND METHOD FOR CONTROL AND BALANCE ASSIST OF A VEHICLE	62/296,342	2/17/2016	N/A	N/A	MTS Systems Corporation
ASCERTAINING POSITION OF A PISTON IN A CYLINDER	62/238,353	10/7/2015	N/A	N/A	MTS Systems Corporation
ASSEMBLY FOR TEST APPARATUS WITH COOLING AND VENTING ASSEMBLIES	13/839,833	3/15/2013	N/A	N/A	MTS Systems Corporation
ELECTRIC LINEAR ACTUATOR ASSEMBLY AND METHOD OF ASSEMBLY	13/839,659	3/15/2013	N/A	N/A	MTS Systems Corporation
GEOLOGICAL MATERIAL TESTING SYSTEM WITH SIMULATED ENVIRONMENT CONDITIONS	62/304,184	3/5/2016	N/A	N/A	MTS Systems Corporation
HIGH FREQUENCY DISPLACEMENT MEASUREMENT CORRECTION	14/991,724	1/8/2016	N/A	N/A	MTS Systems Corporation
HOUSING FOR A MATERIAL TESTING MACHINE	29/521,075	3/19/2015	N/A	N/A	MTS Systems Corporation
METHOD AND SYSTEMS FOR OFF-LINE CONTROL FOR SIMULATION OF COUPLED HYBRID DYNAMIC SYSTEMS	13/857,300	4/5/2013	N/A	N/A	MTS Systems Corporation
METHOD FOR MONITORING AND OPTIMIZING THE PERFORMANCE OF A WELL PUMPING SYSTEM	14/611,814	2/2/2015	N/A	N/A	MTS Systems Corporation
METHOD OF OFF-LINE HYBRID SYSTEM ASSESSMENT FOR TEST MONITORING AND MODIFICATION	14/481,670	9/9/2014	N/A	N/A	MTS Systems Corporation
METHODS AND SYSTEMS FOR TESTING COUPLED HYBRID DYNAMIC SYSTEMS	14/481,680	9/9/2014	N/A	N/A	MTS Systems Corporation
MOBILE APPLICATION INTERACTIVE USER INTERFACE FOR A REMOTE COMPUTING DEVICE MONITORING A TEST DEVICE	14/502,031	9/30/2014	N/A	N/A	MTS Systems Corporation
MULTI AXIS LOAD CELL BODY	62/158,658	5/8/2015	N/A	N/A	MTS Systems Corporation
PLATFORM BALANCE	14/449,856	8/1/2014	N/A	N/A	MTS Systems

Title	Application No.	Filing Date	Patent No.	Issue Date	Grantor
					Corporation
POSITION SENSOR	62/267,694	12/15/2015	N/A	N/A	MTS Systems Corporation
PRECISION FORCE APPLICATOR FOR FORCE TRANSDUCER CALIBRATION	14/508,754	10/7/2014	N/A	N/A	MTS Systems Corporation
REEXAMINATION OF U.S. PATENT NO. 5,553,486	90/008,687	5/30/2007	N/A	N/A	MTS Systems Corporation
REEXAMINATION OF U.S. PATENT NO. 6,026,677	90/008,670	6/3/2007	N/A	N/A	MTS Systems Corporation
SYSTEM HOUSING WITH INTEGRATED CONTINUOUS ROTATION OF A COVER MEMBER ON A BASE PORTION	62/201,376	8/5/2015	N/A	N/A	MTS Systems Corporation
TEST METHOD AND SYSTEM USING A HIGHLY AGILE GROUND VEHICLE FOR INTELLIGENT VEHICLE TESTING	14/883,279	10/14/2015	N/A	N/A	MTS Systems Corporation
TEST SPECIMEN HOLDER FOR HIGH TEMPERATURE ENVIRONMENTS	13/840,760	3/15/2013	N/A	N/A	MTS Systems Corporation
TEST SYSTEM HAVING A COMPLIANT ACTUATOR ASSEMBLY AND ITERATIVELY OBTAINED DRIVE	14/481,659	9/9/2014	N/A	N/A	MTS Systems Corporation
TESTING MACHINE WITH GRAPHICAL USER INTERFACE WITH SITUATIONAL AWARENESS	13/842,993	3/15/2013	N/A	N/A	MTS Systems Corporation
TIRE TESTING APPARATUS	14/449,380	8/1/2014	N/A	N/A	MTS Systems Corporation
TRANSDUCER ACCELERATION COMPENSATION USING A DELAY TO MATCH PHASE CHARACTERISTICS	13/803,773	3/14/2013	N/A	N/A	MTS Systems Corporation
TRANSDUCER SENSOR BODY	62/387,378	12/23/2015	N/A	N/A	MTS Systems Corporation
TWO-AXIS SENSOR BODY FOR A LOAD TRANSDUCER	62/303,159	3/3/2016	N/A	N/A	MTS Systems Corporation
TWO-AXIS SENSOR BODY FOR A LOAD TRANSDUCER	14/449,849	8/1/2014	N/A	N/A	MTS Systems Corporation
WHEEL SUPPORT HAVING A TRANSDUCER SENSOR BODY	62/387,376	12/23/2015	N/A	N/A	MTS Systems Corporation

Title	Application No.	Filing Date	Patent No.	Issue Date	Grantor
LOW DUTY CYCLE OSCILLATOR	10/424,245	4/28/2003	6,791,427	9/14/2004	MTS Systems Corporation
MULTI-AXIS LOAD CELL BODY	09/907,228	7/17/2001	6,769,312	08/03/2004	MTS Systems Corporation
ELECTROMAGNETIC METHOD OF AND APPARATUS FOR ELECTROMAGNETIC PARAMETERS OF MATERIAL (THIN FILMS AND BULKS) MONITORING	09/321,177	5/27/1999	6,675,645	1/13/2004	MTS Systems Corporation
SLOW WAVE STRUCTURE SENSOR WITH ZERO-BASED FREQUENCY OUTPUT	10/146,380	5/15/2002	6,647,780	11/18/2003	MTS Systems Corporation
EXPLOSION PROOF MAGNETOSTRICTIVE PROBE	08/814,615	3/10/1997	6,612,168	9/2/2003	MTS Systems Corporation
LOAD CELL BODY	D/119,642	3/3/2000	D451,415	12/4/2001	MTS Systems Corporation
MATERIAL TESTING APPARATUS HAVING SEPARATED LOAD GENERATING MECHANISMS	09/017,837	2/3/1998	6,058,784	5/9/2000	MTS Systems Corporation
LOAD TRANSDUCER	09/088,868	6/2/1998	5,983,731	11/16/1999	MTS Systems Corporation
THE ORNAMENTAL DESIGN FOR A SUPPORT FRAME FOR A MECHANICAL WEDGE GRIP, AS SHOWN AND DESCRIBED.	D/069,738	4/16/1997	D413,506	9/7/1999	MTS Systems Corporation
WHEELPAN WITH DAMPING STRUCTURES	08/698,364	8/15/1996	5,744,708	4/28/1998	MTS Systems Corporation
PULSE DETECTOR	08/549,491	10/27/1995	5,640,109	6/17/1997	MTS Systems Corporation
WAVEGUIDE SUSPENSION DEVICE AND MODULAR CONSTRUCTION FOR SONIC WAVEGUIDES	08/500,335	7/10/1995	5,590,091	12/31/1996	MTS Systems Corporation

Supplemental Confirmatory Grant of Security Interest in United States Patents dated as of July 5, 2016, by PCB Piezotronics, Inc., a New York corporation, in favor of Administrative Agent, was recorded with the U.S. Patent and Trademark Office on July 5, 2016 at Reel/Frame No. 039258/0370.

<b>Title</b>	<b>Application No.</b>	<b>Filing Date</b>	<b>Patent No.</b>	<b>Issue Date</b>	<b>Grantor</b>
VIBRATION SENSOR WITH MECHANICAL ISOLATION MEMBER	12/898,240	10/5/2010	8,640,545	2/4/2014	PCB Piezotronics, Inc.
PROTECTION APPARATUS FOR RECIPROCATING MACHINE	11/332,562	1/13/2006	7,171,313	1/30/2007	PCB Piezotronics, Inc
SEALED CONTROL DEVICE WITH MAGNETICALLY ADJUSTABLE CONTROL PARAMETER	11/703,353	2/7/2007	7,767,919	8/3/2010	PCB Piezotronics, Inc
BRIDGE SENSOR WITH COLLOCATED ELECTRONICS AND TWO-WIRE INTERFACE	12/413,995	3/30/2009	8,179,121	5/15/2012	PCB Piezotronics, Inc
MECHANICAL VIBRATION SWITCH	14/072,224	11/5/2013	9,024,712	5/5/2015	PCB Piezotronics, Inc
HAND-HELD VIBRATION SENSOR	14/112,832	10/18/2013	N/A	N/A	PCB Piezotronics, Inc



Supplemental Confirmatory Grant of Security Interest in United States Trademarks dated as of July 5, 2016, by MTS Systems Corporation, a Minnesota corporation, in favor of Administrative Agent, was recorded with the U.S. Patent and Trademark Office on July 5, 2016 at Reel/Frame No. 5826/0491.

Title	Application No.	Application Date	Registration No.	Registration Date	Grantor
FLAT-TRAC	73351789	2/25/1982	1,259,226	11/29/1983	MTS Systems Corporation
MTS	73603652	6/11/1986	1,432,777	3/17/1987	MTS Systems Corporation
MTS	73543898	6/19/1985	1,474,537	1/26/1988	MTS Systems Corporation
TESTWARE	73699721	12/4/1987	1,536,146	4/25/1989	MTS Systems Corporation
TESTWORKS	73824031	9/8/1989	1,592,861	4/24/1990	MTS Systems Corporation
LEVEL PLUS	74088834	8/17/1990	1,655,388	9/3/1991	MTS Systems Corporation
TEMPOSONICS	74115571	11/15/1990	1,672,464	1/21/1992	MTS Systems Corporation
RPC	74205712	9/17/1991	1,748,216	1/26/1993	MTS Systems Corporation
BIONIX	75264185	3/20/1997	2,210,209	12/15/1998	MTS Systems Corporation
SWIFT	75717538	6/1/1999	2,343,464	4/18/2000	MTS Systems Corporation
FLEXTEST	78800280	1/26/2006	3,171,597	11/14/2006	MTS Systems Corporation
MTS INSIGHT	78607919	4/13/2005	3,188,151	1/10/2006	MTS Systems Corporation
MTS EM EXTEND	78849367	3/29/2006	3,211,004	2/20/2007	MTS Systems Corporation
ELASTOMEREXPRESS	78968242	9/6/2006	3,410,991	4/8/2008	MTS Systems Corporation
MTS LANDMARK	77163970	4/24/2007	3,502,460	9/16/2008	MTS Systems Corporation
JUST IN CASE	78790403	1/12/2006	3,551,966	12/23/2008	MTS Systems Corporation
MTS	85065780	6/17/2010	3,873,618	11/9/2010	MTS Systems Corporation
BE CERTAIN.	77639640	12/24/2008	3,978,558	6/14/2011	MTS Systems Corporation
MTS	85028888	5/3/2010	3,988,292	7/5/2011	MTS Systems Corporation
BE CERTAIN.	77639616	12/24/2008	4,049,624	11/1/2011	MTS Systems Corporation
MTS	85146701	10/6/2010	4,055,095	11/15/2011	MTS Systems Corporation
BE CERTAIN.	77639625	12/24/2008	4,070,960	12/13/2011	MTS Systems Corporation
MTS CRITERION	85002211	3/30/2010	4,139,601	5/8/2012	MTS Systems Corporation
MTS ACUMEN	85635781	5/25/2012	4,389,263	8/20/2013	MTS Systems Corporation

Title	Application No.	Application Date	Registration No.	Registration Date	Grantor
ECHO	85635796	5/25/2012	4,584,972	8/12/2014	MTS Systems Corporation
MTS ECHO	85635842	5/25/2012	4,584,973	8/12/2014	MTS Systems Corporation
MTS SENSORS	86415522	10/6/2014	4,754,964	6/16/2015	MTS Systems Corporation
MTS SENSORS	86415531	10/6/2014	4,754,965	6/16/2015	MTS Systems Corporation
EXCEED	86292621	5/27/2014	4,828,088	10/6/2015	MTS Systems Corporation
MTS EXCEED	86292605	5/27/2014	4,837,679	10/20/2015	MTS Systems Corporation
FLAT-TRAC	85635789	5/25/2012	4,905,358	2/23/2016	MTS Systems Corporation
MTS	72264944	2/17/1967	0,848,613	5/7/1968	MTS Systems Corporation
MTS SENSORS	86415503	10/6/2014	N/A	N/A	MTS Systems Corporation
MTS SENSORS	86415514	10/6/2014	N/A	N/A	MTS Systems Corporation
TANK SLAYER	86517836	1/29/2015	N/A	N/A	MTS Systems Corporation
SOCLEAN	86517840	1/29/2015	N/A	N/A	MTS Systems Corporation
REFINEME	86517845	1/29/2015	N/A	N/A	MTS Systems Corporation
MTS CONCORD	86591374	4/8/2015	N/A	N/A	MTS Systems Corporation
CONCORD	86591383	4/8/2015	N/A	N/A	MTS Systems Corporation
LANDMARK	86860516	12/29/2015	N/A	N/A	MTS Systems Corporation
ACUMEN	86860545	12/29/2015	N/A	N/A	MTS Systems Corporation
CRITERION	86860551	12/29/2015	N/A	N/A	MTS Systems Corporation
RENEW	86912108	2/18/2016	N/A	N/A	MTS Systems Corporation
MTS RENEW	86912113	2/18/2016	N/A	N/A	MTS Systems Corporation
RIPL	86919850	2/25/2016	N/A	N/A	MTS Systems Corporation
MTS INSIGHT	87039317	5/17/2016	N/A	N/A	MTS Systems Corporation

Supplemental Confirmatory Grant of Security Interest in United States Trademarks dated as of July 5, 2016, by PCB Piezotronics, Inc., a New York corporation, in favor of Administrative Agent, was recorded with the U.S. Patent and Trademark Office on July 5, 2016 at Reel/Frame No. 5826/0517

<b>Title</b>	<b>Application No.</b>	<b>Application Date</b>	<b>Registration No.</b>	<b>Registration Date</b>	<b>Grantor</b>
BLAZE	75682850	4/14/1999	2,366,120	7/11/2000	PCB Piezotronics, Inc
SPARK	75684552	4/14/1999	2,366,124	7/11/2000	PCB Piezotronics, Inc
SOUNDTRACK LXT	76585353	4/6/2004	3,071,547	3/21/2006	PCB Piezotronics, Inc