

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3221896

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the PATENT NUMBER 6192086 WAS INCORRECTLY NOTED AS 6192088 previously recorded on Reel 034884 Frame 0885. Assignor(s) hereby confirms the SECURITY AGREEMENT.

CONVEYING PARTY DATA

Name	Execution Date
THAT CORPORATION	08/25/2010

RECEIVING PARTY DATA

Name:	MIDDLESEX SAVINGS BANK
Street Address:	140 S MAIN STREET
City:	MILFORD
State/Country:	MASSACHUSETTS
Postal Code:	01757

PROPERTY NUMBERS Total: 37

Property Type	Number
Patent Number:	6192086
Patent Number:	5568561
Patent Number:	5736846
Patent Number:	5663684
Patent Number:	5796842
Patent Number:	6037993
Patent Number:	6118879
Patent Number:	6259482
Patent Number:	6160451
Patent Number:	6588867
Patent Number:	6316970
Patent Number:	7397850
Patent Number:	7411438
Patent Number:	7539316
Patent Number:	7639307
Application Number:	11204723
Patent Number:	7719616
Application Number:	11395990

PATENT

Property Type	Number
Application Number:	11445670
Application Number:	11649538
Application Number:	11927734
Application Number:	11927739
Application Number:	11927742
Application Number:	11927746
Application Number:	11927751
Application Number:	11930241
Application Number:	12134568
Application Number:	12190334
Application Number:	12471946
Application Number:	12619653
Application Number:	12619655
Application Number:	12627317
Application Number:	12648520
Application Number:	61345277
Application Number:	12857246
Application Number:	12857099
Application Number:	12857074

CORRESPONDENCE DATA

Fax Number:

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.

Email: ipdocketmwe@mwe.com

Correspondent Name: MCDERMOTT WILL AND EMERY

Address Line 1: 500 NORTH CAPITOL STREET, N.W.

Address Line 4: WASHINGTON, D.C. 20001

NAME OF SUBMITTER:	G. MATTHEW MCCLOSKEY
SIGNATURE:	/G. Matthew McCloskey/
DATE SIGNED:	02/11/2015

Total Attachments: 9
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APPLICATION NUMBER: 09038740 FILING DATE: 03/11/1998
PATENT NUMBER: 6037993 ISSUE DATE: 03/14/2000
TITLE: DIGITAL BTSC COMPANDER SYSTEM

APPLICATION NUMBER: 09041244 FILING DATE: 03/12/1998
PATENT NUMBER: 6118879 ISSUE DATE: 09/12/2000
TITLE: BTSC ENCODER

APPLICATION NUMBER: 09052455 FILING DATE: 03/31/1998
PATENT NUMBER: 6192088 ISSUE DATE: 02/20/2001
TITLE: CARRIER RECOVERY SYSTEM

APPLICATION NUMBER: 09228631 FILING DATE: 01/11/1999
PATENT NUMBER: 6259482 ISSUE DATE: 07/10/2001
TITLE: DIGITAL BTSC COMPANDER SYSTEM

APPLICATION NUMBER: 09293033 FILING DATE: 04/16/1999
PATENT NUMBER: 6160451 ISSUE DATE: 12/12/2000
TITLE: OPERATIONAL AMPLIFIER OUTPUT STAGE

APPLICATION NUMBER: 09483447 FILING DATE: 01/14/2000
PATENT NUMBER: 6192086 ISSUE DATE: 02/20/2001
TITLE: DIGITAL SUB-SYSTEMS AND BUILDING BLOCKS FOR A MOSTLY DIGITAL
LOW-COST BTSC COMPATIBLE ENCODER

APPLICATION NUMBER: 09506989 FILING DATE: 02/18/2000
PATENT NUMBER: 6588867 ISSUE DATE: 07/08/2003
TITLE: RECIPROCAL INDEX LOOKUP FOR BTSC COMPATIBLE COEFFICIENTS

APPLICATION NUMBER: 09708869 FILING DATE: 11/08/2000
PATENT NUMBER: 6316970 ISSUE DATE: 11/13/2001
TITLE: FLOATING, BALANCED OUTPUT CIRCUIT

APPLICATION NUMBER: 10407041 FILING DATE: 04/04/2003
PATENT NUMBER: 7397850 ISSUE DATE: 07/08/2008
TITLE: RECIPROCAL INDEX LOOKUP FOR BTSC COMPATIBLE COEFFICIENTS

APPLICATION NUMBER: 10963275 FILING DATE: 10/12/2004
PATENT NUMBER: 7411438 ISSUE DATE: 08/12/2008
TITLE: LOW-POWER INTEGRATED-CIRCUIT SIGNAL PROCESSOR WITH WIDE DYNAMIC
RANGE

APPLICATION NUMBER: 11089385 FILING DATE: 03/24/2005
PATENT NUMBER: 7539316 ISSUE DATE: 05/26/2009
TITLE: CONFIGURABLE FILTER FOR PROCESSING TELEVISION AUDIO SIGNALS

APPLICATION NUMBER: 11196133 FILING DATE: 08/03/2005
PATENT NUMBER: 7639307 ISSUE DATE: 12/29/2009
TITLE: UP-SAMPLING TELEVISION AUDIO SIGNALS FOR ENCODING

APPLICATION NUMBER: 11204723 FILING DATE: 08/16/2005
PATENT NUMBER: 7822210 ISSUE DATE: 10/26/2010
TITLE: CONFIGURABLE RECURSIVE DIGITAL FILTER FOR PROCESSING TELEVISION
AUDIO SIGNALS

APPLICATION NUMBER: 11228066 FILING DATE: 09/16/2005
PATENT NUMBER: 7719616 ISSUE DATE: 05/18/2010
TITLE: DIRECT DIGITAL ENCODING AND RADIO FREQUENCY MODULATION FOR
BROADCAST TELEVISION APPLICATION

APPLICATION NUMBER: 11395990	FILING DATE: 03/31/2006
PATENT NUMBER: 8014741	ISSUE DATE: 09/06/2011
TITLE: SIGNAL QUALITY ESTIMATION AND CONTROL SYSTEM	
APPLICATION NUMBER: 11445670	FILING DATE: 06/02/2006
PATENT NUMBER: 8908872	ISSUE DATE: 12/09/2014
TITLE: BTSC ENCODER	
APPLICATION NUMBER: 11649538	FILING DATE: 01/04/2007
PATENT NUMBER: 8023590	ISSUE DATE: 09/20/2011
TITLE: NICAM AUDIO SIGNAL RESAMPLER	
APPLICATION NUMBER: 11927734	FILING DATE: 10/30/2007
PATENT NUMBER:	ISSUE DATE:
TITLE: BTSC ENCODER	
APPLICATION NUMBER: 11927739	FILING DATE: 10/30/2007
PATENT NUMBER:	ISSUE DATE:
TITLE: BTSC ENCODER	
APPLICATION NUMBER: 11927742	FILING DATE: 10/30/2007
PATENT NUMBER:	ISSUE DATE:
TITLE: BTSC ENCODER	
APPLICATION NUMBER: 11927746	FILING DATE: 10/30/2007
PATENT NUMBER:	ISSUE DATE:
TITLE: BTSC ENCODER	
APPLICATION NUMBER: 11927751	FILING DATE: 10/30/2007
PATENT NUMBER: 8284954	ISSUE DATE: 10/09/2012
TITLE: BTSC ENCODER	
APPLICATION NUMBER: 11930241	FILING DATE: 10/31/2007
PATENT NUMBER:	ISSUE DATE:
TITLE: BTSC ENCODER	
APPLICATION NUMBER: 12134568	FILING DATE: 06/06/2008
PATENT NUMBER: 7940842	ISSUE DATE: 05/10/2011
TITLE: RECIPROCAL INDEX LOOKUP FOR BTSC COMPATIBLE COEFFICIENTS	
APPLICATION NUMBER: 12190334	FILING DATE: 08/12/2008
PATENT NUMBER:	ISSUE DATE:
TITLE: LOW-POWER INTEGRATED-CIRCUIT SIGNAL PROCESSOR WITH WIDE DYNAMIC RANGE	
APPLICATION NUMBER: 12471946	FILING DATE: 05/26/2009
PATENT NUMBER: 7826621	ISSUE DATE: 11/02/2010
TITLE: CONFIGURABLE FILTER FOR PROCESSING TELEVISION AUDIO SIGNALS	
APPLICATION NUMBER: 12619653	FILING DATE: 11/16/2009
PATENT NUMBER:	ISSUE DATE:
TITLE: DYNAMIC VOLUME CONTROL AND MULTI-SPATIAL PROCESSING PROTECTION	
APPLICATION NUMBER: 12619655	FILING DATE: 11/16/2009
PATENT NUMBER: 8315411	ISSUE DATE: 11/20/2012
TITLE: DYNAMIC VOLUME CONTROL AND MULTI-SPATIAL PROCESSING PROTECTION	

PATENT SECURITY AGREEMENT

This Patent Security Agreement (this "Agreement"), is entered into as of August 25, 2010 by THAT CORPORATION, a Massachusetts corporation (the "Borrower") and each Guarantor listed on Schedule II hereto (collectively, the "Guarantors," and together with the Borrowers, the "Grantors"), in favor of MIDDLESEX SAVINGS BANK (the "Lender"), for the benefit of itself and the other Secured Parties (as such term is defined in the Loan Agreement referred to below) (in such capacity, and together with its successors in such capacity, the "Secured Party").

WITNESSETH:

WHEREAS, the Grantors are party to a Security Agreement dated as of the date hereof (as amended from time to time, the "Security Agreement") in favor of the Secured Party pursuant to which the Grantors are required to execute and deliver this Agreement;

NOW, THEREFORE, in consideration of the foregoing premises and to induce the Secured Party, for the benefit of the Secured Parties, to enter into Loan Agreement, the Grantors hereby agree with the Secured Party as follows:

SECTION 1. Defined Terms. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement.

SECTION 2. Grant of Security Interest in Patent Collateral. Each Grantor hereby pledges and grants to the Secured Party for the benefit of the Lenders a lien on and a security interest in and to all of its right, title and interest in, to and under all:

- (a) Patents, including such registrations or applications for registration are listed on Schedule I attached hereto;
- (b) Goodwill associated with such Patents; and
- (c) Proceeds of any and all of the foregoing.

SECTION 3. Security Agreement. The security interest granted pursuant to this Agreement is granted in conjunction with the security interest granted to the Secured Party pursuant to the Security Agreement, and the Grantors hereby acknowledge and affirm that the rights and remedies of the Secured Party with respect to the security interest in the Patents made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event that any provision of this Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control.

[Signature Page Follows]

Patent Security Agreement

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PATENT
REEL: 034954 FRAME: 0981

IN WITNESS WHEREOF, each Grantor has caused this Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

GRANTORS

THAT CORPORATION

By: Leslie B. Tyler
Name: LESLIE B. TYLER
Title: PRESIDENT

[Signature Page to Patent Security Agreement]

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PATENT
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PATENT
REEL: 034954 FRAME: 0982

Schedule I

Patent No.	Issue Date	Patent No.	Issue Date	Title
08/363,243	12/22/1994	5,568,561	10/22/1998	DIFFERENTIAL LINE RECEIVER WITH COMMON-MODE AC BOOTSTRAPPING
08/540,045	10/6/1995	5,738,846	4/7/1998	AC CURRENT SENSOR
08/539,987	11/7/1995	5663684	9/2/1997	WAFER-STAGE ADJUSTMENT FOR COMPENSATING FOR MISMATCHES IN TE
08/661,412	6/7/1996	5,798,842	8/18/1998	BTSC ENCODER
09/038,740	3/11/1998	6,037,993	3/14/2000	DIGITAL BTSC COMPANDER SYSTEM
09/041,244	3/12/1998	6,118,879	9/12/2000	BTSC ENCODER
09/228,631	1/11/1999	6,259,482	7/10/2001	DIGITAL BTSC COMPANDER SYSTEM
09/283,033	4/16/1999	6,160,451	12/12/2000	IMPROVED OPERATIONAL AMPLIFIER OUTPUT STAGE
09/506,889	2/18/2000	6,588,867	7/8/2003	RECIPROCAL INDEX LOOKUP FOR BTSC COMPATIBLE COEFFICIENTS
09/638,245	8/14/2000			BTSC ENCODER
09/708,889	11/8/2000	6,316,970	11/13/2001	FLOATING, BALANCED OUTPUT CIRCUIT
09/483,447	2/20/2001	6192086	2/20/2001	DIGITAL SUB-SYSTEMS AND BUILDING BLOCKS FOR A MOSTLY DIGITAL LOW-COST BTSC COMPATIBLE ENCODER
10/407,041	4/4/2003	7,397,850	7/8/2008	RECIPROCAL INDEX LOOKUP FOR BTSC COMPATIBLE COEFFICIENTS
10/963,275	10/12/2004	7,411,438	8/12/2008	LOW-POWER INTEGRATED-CIRCUIT SIGNAL PROCESSOR WITH WIDE DYNAMIC RANGE
11/089,385	3/24/2005	7,539,316	5/28/2009	CONFIGURABLE FILTER FOR PROCESSING TELEVISION AUDIO SIGNALS
11/195,133	8/3/2005	7,639,307	12/29/2009	UP-SAMPLING TELEVISION AUDIO SIGNALS FOR ENCODING
11/204,723	8/16/2005			CONFIGURABLE RECURSIVE DIGITAL FILTER FOR PROCESSING TELEVISION AUDIO SIGNALS
11/228,066	9/16/2005	7719816	5/18/2010	DIRECT DIGITAL ENCODING AND RADIO FREQUENCY MODULATION FOR BROADCAST TELEVISION APPLICATION
11/395,990	3/31/2006			SIGNAL QUALITY ESTIMATION AND CONTROL SYSTEM
11/445,670	6/2/2006			BTSC ENCODER
11/649,539	1/4/2007			NICAM AUDIO SIGNAL RESAMPLER
11/927,734	10/30/2007			BTSC ENCODER
11/927,739	10/30/2007			BTSC ENCODER
11/927,742	10/30/2007			BTSC ENCODER
11/927,746	10/30/2007			BTSC ENCODER
11/927,751	10/30/2007			BTSC ENCODER
11/930,241	10/31/2007			BTSC ENCODER
12/134,568	6/6/2008			RECIPROCAL INDEX LOOKUP FOR BTSC COMPATIBLE COEFFICIENTS

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REEL: 034954 FRAME: 0983

12/190,334	8/12/2008	LOW-POWER INTEGRATED-CIRCUIT SIGNAL PROCESSOR WITH WIDE DYNAMIC RANGE
12/471,946	5/26/2008	CONFIGURABLE FILTER FOR PROCESSING TELEVISION AUDIO SIGNALS
12/619,653	11/18/2009	DYNAMIC VOLUME CONTROL AND MULTI-SPATIAL PROCESSING PROTECTION
12/619,655	11/18/2009	DYNAMIC VOLUME CONTROL AND MULTI-SPATIAL PROCESSING PROTECTION
61/283,087	11/20/2009	VIRTUAL SURROUND PROCESSING
12/627,317	11/30/2009	DIRECT DIGITAL ENCODING AND RADIO FREQUENCY MODULATION FOR BROADCAST TELEVISION APPLICATIONS
12/648,520	12/29/2009	UP-SAMPLING TELEVISION AUDIO SIGNALS FOR ENCODING
61/293,005	1/7/2010	COMPRESSOR BASED DYNAMIC BASS
61/346,277	5/17/2010	COMPRESSOR BASED DYNAMIC BASE ENHANCEMENT
12/857,246	8/16/2010	SYSTEM AND METHOD FOR DIGITAL CONTROL OF AMPLIFIER GAIN WITH REDUCED ZIPPER NOISE
12/857,099	8/18/2010	AREA EFFICIENT PROGRAMMABLE-GAIN AMPLIFIER
12/857,074	8/16/2010	DYNAMIC SWITCH DRIVER FOR LOW-DISTORTION PROGRAMMABLE GAIN AMPLIFIER

Patent Security Agreement

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PATENT
REEL: 025846 FRAME: 0884

PATENT
REEL: 034954 FRAME: 0984

Schedule II

[No Guarantors on the date hereof.]

Patent Security Agreement

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RECORDED: 02/24/2011

PATENT
REEL: 025846 FRAME: 0885

RECORDED: 02/11/2015

PATENT
REEL: 034954 FRAME: 0985