

EXHIBIT 1061

U.S. PATENT NO. 7,304,670 TO HUSSEY *et al.*

(“the ‘670 Patent”)

TRW Automotive U.S. LLC: EXHIBIT 1061
PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NUMBER 8,599,001
IPR2015-00436



US007304670B1

(12) **United States Patent**
Hussey et al.

(10) **Patent No.:** **US 7,304,670 B1**
(45) **Date of Patent:** **Dec. 4, 2007**

(54) **METHOD AND APPARATUS FOR COMPENSATING FOR FIXED PATTERN NOISE IN AN IMAGING SYSTEM**

5,120,940 A	6/1992	Willisie
5,153,418 A	10/1992	Batterman et al.
5,189,292 A	2/1993	Batterman et al.
5,212,777 A	5/1993	Gove et al.
5,223,701 A	6/1993	Batterman et al.
5,243,655 A	9/1993	Wang
5,260,554 A	11/1993	Grodevant
5,262,623 A	11/1993	Batterman et al.
5,286,960 A	2/1994	Longacre, Jr. et al.

(75) Inventors: **Robert M. Hussey**, Liverpool, NY (US); **William H. Havens**, Skaneateles, NY (US)

(73) Assignee: **Hand Held Products, Inc.**, Skaneateles Falls, NY (US)

(Continued)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

FOREIGN PATENT DOCUMENTS

EP	978990 A2	2/2000
EP	1050793 A2	11/2000
EP	978990 A3	4/2001
EP	1050793 A3	9/2004
GB	2 357 209 A	6/2001

(Continued)

(21) Appl. No.: **08/828,340**

(22) Filed: **Mar. 28, 1997**

OTHER PUBLICATIONS

VVL 1070 Engineering Evaluation Kit Specification, Sep. 27, 1994, V1.1, pp. 1-5.

(Continued)

(51) **Int. Cl.**
H04N 5/217 (2006.01)
G06K 7/10 (2006.01)

(52) **U.S. Cl.** **348/241**; 235/462.11

(58) **Field of Classification Search** 348/241, 348/243, 247, 250, 251, 254; 382/261, 373; 358/406, 504; 235/462.11, 462.24
See application file for complete search history.

(56) **References Cited**

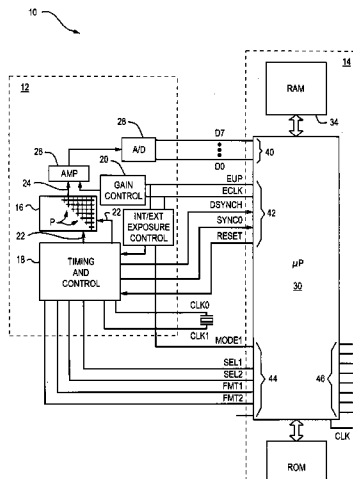
U.S. PATENT DOCUMENTS

3,684,868 A	8/1972	Christie et al.	
4,602,291 A *	7/1986	Temes	348/243
4,806,776 A	2/1989	Kley	
4,806,780 A *	2/1989	Yamamoto et al.	348/251
4,873,426 A	10/1989	Sarna et al.	
4,874,936 A	10/1989	Chandler et al.	
4,896,029 A	1/1990	Chandler et al.	
4,920,428 A *	4/1990	Lin et al.	348/246
4,942,474 A	7/1990	Akimoto et al.	
4,998,010 A	3/1991	Chandler et al.	
5,038,391 A	8/1991	Yamaguchi	
5,047,861 A *	9/1991	Houchin et al.	348/247
5,091,975 A	2/1992	Berger et al.	

(57) **ABSTRACT**

There is described a pixel value adjustment method and apparatus. In one embodiment, pixel values can be adjusted by execution of an algorithm for adjusting pixel values. In one embodiment, an apparatus capable of executing an algorithm for adjusting pixel values is capable of operating in a decoding operating application. In one embodiment, an apparatus capable of executing an algorithm for adjusting pixel values is capable of operating in a video display operating application.

73 Claims, 7 Drawing Sheets



U.S. PATENT DOCUMENTS			FOREIGN PATENT DOCUMENTS			
5,294,783	A	3/1994 Hammond, Jr. et al.	5,877,487	A	3/1999 Tani et al.	
5,296,690	A	3/1994 Chandler et al.	5,917,945	A	6/1999 Cymbalski	
5,303,064	A *	4/1994 Johnson et al. 358/406	5,920,061	A	7/1999 Feng	
5,304,787	A	4/1994 Wang	5,920,477	A	7/1999 Hoffberg et al.	
5,305,122	A	4/1994 Haysshi et al.	5,926,214	A	7/1999 Denyer et al.	
5,311,001	A	5/1994 Joseph et al.	5,932,862	A	8/1999 Hussey et al.	
5,343,028	A	8/1994 Figarella et al.	5,949,054	A	9/1999 Karpen et al.	
5,345,266	A	9/1994 Denyer	5,949,056	A	9/1999 White	
5,378,881	A	1/1995 Adachi	5,979,763	A	11/1999 Wang et al.	
5,378,883	A	1/1995 Batterman et al.	5,992,753	A	11/1999 Xu	
5,392,447	A	2/1995 Schlack et al.	6,003,008	A	12/1999 Postrel et al.	
5,396,054	A	3/1995 Krichever et al.	6,017,496	A	1/2000 Nova et al.	
5,410,141	A	4/1995 Koenck et al.	6,019,286	A	2/2000 Li et al.	
5,412,197	A	5/1995 Smith	6,034,379	A *	3/2000 Bunte et al. 382/313	
5,414,251	A	5/1995 Durbin	6,053,407	A	4/2000 Wang et al.	
5,418,862	A	5/1995 Zheng et al.	6,062,475	A	5/2000 Feng	
5,420,409	A	5/1995 Longacre, Jr. et al.	6,064,763	A	5/2000 Maltsev	
5,420,943	A	5/1995 Mak	6,070,800	A	6/2000 Fujita et al.	
5,422,470	A	6/1995 Kubo	6,075,240	A	6/2000 Watanabe et al.	
5,428,211	A	6/1995 Zheng et al.	6,082,619	A	7/2000 Ma et al.	
5,428,212	A	6/1995 Tani et al.	6,094,509	A	7/2000 Zheng et al.	
5,430,286	A	7/1995 Hammond, Jr. et al.	6,119,179	A	9/2000 Whitridge et al.	
5,471,515	A	11/1995 Fossum et al.	6,123,261	A	9/2000 Roustaei	
5,477,042	A	12/1995 Wang	6,129,278	A	10/2000 Wang et al.	
5,478,999	A	12/1995 Figarella et al.	6,157,027	A	12/2000 Watanabe et al.	
5,487,115	A	1/1996 Surka	6,170,749	B1	1/2001 Goren et al.	
5,489,769	A	2/1996 Kubo	6,176,428	B1	1/2001 Joseph et al.	
5,504,524	A	4/1996 Lu et al.	6,215,992	B1	4/2001 Howel et al.	
5,513,264	A	4/1996 Wang et al.	6,232,973	B1	5/2001 Dow et al.	
5,519,441	A *	5/1996 Gusmano et al. 358/504	6,264,015	B1	7/2001 De Kock	
5,524,068	A	6/1996 Kacandes et al.	6,298,176	B2	10/2001 Longacre, Jr. et al.	
5,534,684	A	7/1996 Danielson	6,304,313	B1	10/2001 Honma	
5,537,431	A	7/1996 Chen et al.	6,329,139	B1	12/2001 Nova et al.	
5,545,886	A	8/1996 Melitsky et al.	6,347,163	B2	2/2002 Roustael	
5,550,366	A	8/1996 Roustaei	6,375,075	B1	4/2002 Ackley et al.	
5,565,669	A	10/1996 Liu	6,486,911	B1	11/2002 Denyer et al.	
5,572,006	A	11/1996 Wang et al.	6,491,223	B1	12/2002 Longacre, Jr. et al.	
5,591,955	A	1/1997 Laser	6,493,029	B1	12/2002 Denyer et al.	
5,591,956	A	1/1997 Longacre, Jr. et al.	6,508,404	B2	1/2003 Hecht	
5,612,524	A	3/1997 Sant'Anselmo et al.	6,547,139	B1	4/2003 Havens et al.	
5,637,849	A	6/1997 Wang et al.	6,547,142	B1	4/2003 Goren et al.	
5,638,465	A	6/1997 Sano et al.	6,561,428	B2	5/2003 Meier et al.	
5,642,442	A	6/1997 Morton et al.	6,565,003	B1	5/2003 Ma	
5,646,390	A	7/1997 Wang et al.	6,585,159	B1	7/2003 Meier et al.	
5,663,549	A	9/1997 Katz et al.	6,606,171	B1	8/2003 Renk et al.	
5,666,167	A	9/1997 Tults	6,621,598	B1	9/2003 Oda	
5,698,833	A	12/1997 Skinger	6,655,595	B1	12/2003 Longacre, Jr. et al.	
5,702,059	A	12/1997 Chu et al.	6,655,597	B1	12/2003 Swartz et al.	
5,703,349	A	12/1997 Meyerson et al.	6,678,412	B1	1/2004 Shigekusa et al.	
5,710,417	A	1/1998 Joseph et al.	6,688,523	B1	2/2004 Koenck	
5,714,745	A	2/1998 Ju et al.	6,722,569	B2	4/2004 Ehrhart et al.	
5,723,853	A	3/1998 Longacre, Jr. et al.	6,732,929	B2	5/2004 Good et al.	
5,723,868	A	3/1998 Hammond, Jr. et al.	6,736,321	B2	5/2004 Tsikos et al.	
5,726,435	A	3/1998 Hara et al.	6,739,511	B2	5/2004 Tsikos et al.	
5,739,518	A	4/1998 Wang	6,742,707	B1	6/2004 Tsikos et al.	
5,756,981	A	5/1998 Roustaei et al.	6,834,807	B2	12/2004 Ehrhart et al.	
5,774,357	A	6/1998 Hoffberg et al.	6,854,649	B2	2/2005 Worner et al.	
5,780,834	A	7/1998 Havens et al.	6,857,570	B2	2/2005 Tsikos et al.	
5,784,102	A *	7/1998 Hussey et al. 348/296	6,863,216	B2	3/2005 Tsikos et al.	
5,798,847	A *	8/1998 Aerts 348/251	6,889,904	B2	5/2005 Bianculli et al.	
5,801,962	A *	9/1998 Sheu et al. 358/406	2001/0009428	A1	7/2001 Dow et al.	
5,814,801	A	9/1998 Wang et al.	2001/0046036	A1	11/2001 Honma	
5,818,028	A	10/1998 Meyerson et al.	2002/0000470	A1	1/2002 Lanzaro et al.	
5,821,518	A	10/1998 Sussmeier et al.	2004/0155110	A1	8/2004 Ehrhart et al.	
5,821,523	A	10/1998 Bunte et al.	2005/0167504	A1	8/2005 Meier et al.	
5,825,006	A	10/1998 Longacre, Jr. et al.				
5,834,754	A	11/1998 Feng et al.				
5,857,029	A	1/1999 Patel	GB	2357209	A	6/2001
5,867,594	A	2/1999 Cymbalski	JP	11232378	A	8/1999
			JP	2000-050028	A2	2/2000

WO WO94/10652 A1 5/1994
WO WO95/34043 A1 12/1995
WO WO96/39676 A1 12/1996
WO WO97/08647 A1 3/1997
WO WO 03/001435 A1 1/2003
WO WO 03/081520 A1 10/2003
WO WO 03/081521 A1 10/2003
WO WO 2004/064382 A1 7/2004

OTHER PUBLICATIONS

Marshall Electronics, Optical Systems Division, Monochrome Monolithic Image Sensor With Analogue and Digital Outputs VVL1070 Specification, Believed to be published in 1994, pp. 1-24.

VLSI Vision Ltd., High Resolution EIA/CCIR Monochrome Monolithic Camera Specification, VVL-1060, Apr. 1994, pp. 1-23.

VLSI Vision Ltd., Serial Interface Specification, VVL-1060, Apr. 1994, pp. 1-9.

Sony Corporation, ICX084AL, Technical Specification, Believed to be published prior to Jan. 22, 2000.

Intermec Corporation, J7010 Hand-Held Imager User's Manual, 1995, 60 pages.

Text String Extraction from Images of Colour-Printed Documents-IEEE Proc. -Vis. Image Signal Process., vol. 143, Suen H. M., et al., No. 4, Aug. 1996, pp. 210-216.

* cited by examiner

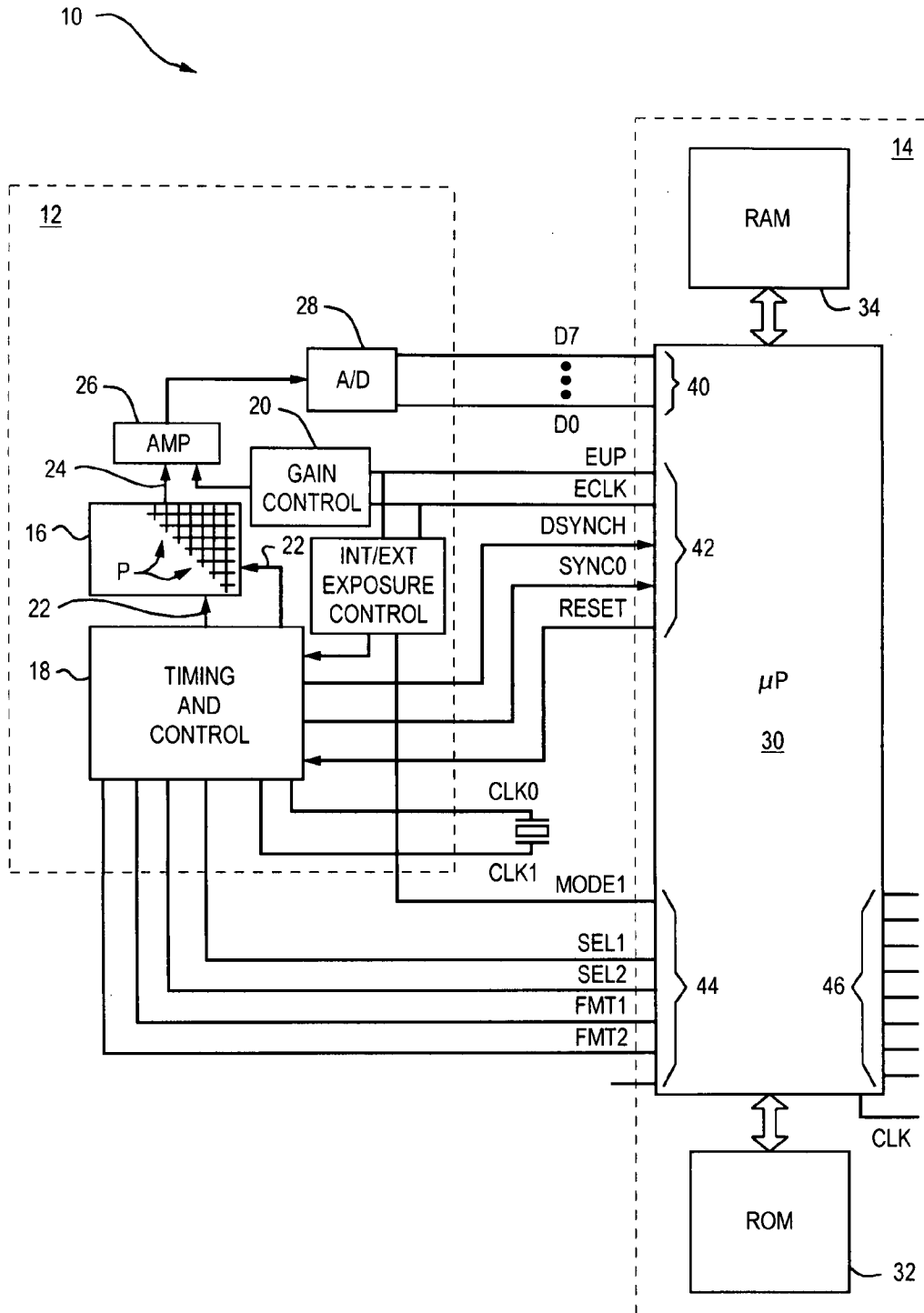


FIG. 1

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.