

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

ENHANCED AUDIO SYSTEMS, LLC,

Plaintiff,

v.

LENOVO GROUP, LTD.; LENOVO
HOLDING COMPANY, INC.; and
LENOVO (UNITED STATES), INC.,

Defendants.

Civil Action No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Enhanced Audio Systems, LLC (“Enhanced Audio” or “Plaintiff”), for its Complaint against Defendants Lenovo Group, Ltd. (“LGL”), Lenovo Holding Company, Inc. (“LHCI”), and Lenovo (United States), Inc. (“Lenovo U.S.A.”) (individually each a “Defendant” and collectively “Defendants” or “Lenovo”) alleges the following:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

THE PARTIES

2. Plaintiff is a limited liability company organized under the laws of the State of Delaware and can be served through its registered agent at 717 North Union Street, Wilmington, Delaware 19805.

3. Upon information and belief, LGL is a corporation organized and existing under the laws of China, with its principal place of business at No. 6 Chuang Ye Road, Haidian District, Shangdi Information Industry Base, 100085 Beijing, China. Upon information and belief, LGL

sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services that into the stream of commerce and that incorporate infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

4. Upon information and belief, LHCI is a corporation organized and existing under the laws of Delaware, with a place of business at 1009 Think Place, Morrisville, North Carolina 27560, and can be served through its registered agent, The Corporation Trust Company, Corporation Trust Center 1209 Orange Street, Wilmington, Delaware 19801. Upon information and belief, LHCI sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services that into the stream of commerce and that incorporate infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

5. Upon information and belief, Lenovo U.S.A. is a corporation organized and existing under the laws of Delaware, with a place of business at 1009 Think Place, Morrisville, North Carolina 27560, and can be served through its registered agent, The Corporation Trust Company, Corporation Trust Center 1209 Orange Street, Wilmington, Delaware 19801. Upon information and belief, Lenovo U.S.A. sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services that into the stream of commerce and that incorporate infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

JURISDICTION AND VENUE

6. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

7. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

8. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b), (c), (d) and/or 1400(b). On information and belief, each Defendant conducts business in this District, the claims alleged in this Complaint arise in this District, and the acts of infringement have taken place and are continuing to take place in this District.

9. On information and belief, each Defendant is subject to this Court's general and specific personal jurisdiction because each Defendant has sufficient minimum contacts within the State of Delaware, pursuant to due process and/or the Del. Code. Ann. Tit. 3, § 3104 because each Defendant purposefully availed itself of the privileges of conducting business in the State of Delaware, because each Defendant regularly conducts and solicits business within the State of Delaware, and because Plaintiff's causes of action arise directly from each of Defendant's business contacts and other activities in the State of Delaware. Further, this Court has personal jurisdiction over LHCI and Lenovo U.S.A. because they are incorporated in Delaware and have purposely availed themselves of the privileges and benefits of the laws of the State of Delaware.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 6,374,148

10. The allegations set forth in the foregoing paragraphs 1 through 9 are incorporated into this First Claim for Relief.

11. On April 16, 2002, U.S. Patent No. 6,374,148 ("the '148 patent"), entitled "Portable-PC Audio System with Digital-Audio Links to External Audio in a Docking Station," was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '148 patent is attached as Exhibit 1.

12. Plaintiff is the assignee and owner of the right, title and interest in and to the '148 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them.

13. Upon information and belief, each Defendant has and continues to directly infringe at least claims 1 and 15 of the '148 patent by making, using, selling, importing and/or providing and causing to be used audio systems for portable personal computers within the scope of claims 1 and 15 of the '148 patent, including, but not limited to, the products with the following designations or trade names: ThinkPad X Series Laptops; ThinkPad T Series Laptops; ThinkPad P Series Laptops; ThinkPad Yoga Series Laptops; ThinkPad E Series Laptops; ThinkPad L Series Laptops; ThinkPad 13 Series Laptops; ThinkPad 11E Series Laptops; ThinkPad Ultra Dock - 90W US; ThinkPad Pro Dock - 90 W US / Canada / Mexico; ThinkPad OneLink Pro Dock; ThinkPad USB 3.0 Ultra Dock; ThinkPad USB 3.0 Pro Dock-US; ThinkPad Ultra Dock - 170 W US / Canada / Mexico; ThinkPad Basic Dock - 90W US / Canada / Mexico; ThinkPad UltraBase Series 3; ThinkPad Workstation Dock Compatible with: P50 and P70; ThinkPad OneLink Dock; ThinkPad OneLink + Dock Compatible with: X1 Carbon (4th Gen), X1 Yoga, and Yoga 260; ThinkPad USB 3.0 Basic Dock - US/Can (the "Infringing Instrumentalities"). Exemplary images of the Infringing Instrumentalities are provided below:

Lenovo ThinkPad T460



ThinkPad Ultra Dock - 90W US



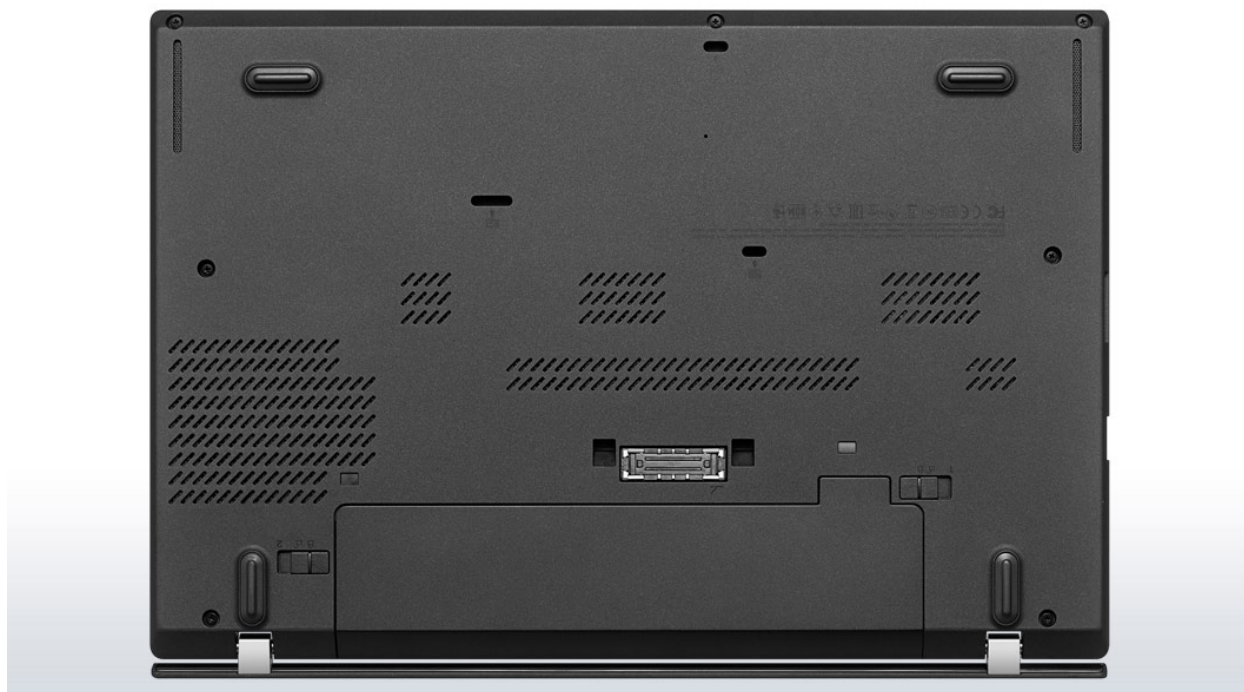
14. Claim 1 of the '148 patent generally recites an audio system for a portable personal computer (PC) comprising: an internal audio controller for generating internal digital audio; an internal analog-digital converter for converting internal digital audio from the internal audio controller to analog audio for playing on an internal speaker; a docking-station connector

for connecting the portable PC to a docking station, the docking-station connector containing high-speed digital signals for communicating data, address, and control to an expansion bus in the docking station, the expansion bus for receiving expansion cards to expand functions performed by the portable PC when the portable PC is connected to the docking station through the docking-station connector; an external digital-audio link, using digital signals in the docking-station connector, for sending the internal digital audio generated by the internal audio controller to the docking station, and wherein digital-audio signals are sent over the external digital-audio link through the docking-station connector, whereby digital audio is generated inside the portable PC and transmitted as digital audio signals to the docking station.

15. As demonstrated in the exemplary images below, the Infringing Instrumentalities infringe claim 1 of the '148 patent because they are audio systems for a portable personal computer (PC)

Lenovo ThinkPad T460





ThinkPad Ultra Dock - 90W US





comprising: an internal audio controller for generating internal digital audio; an internal analog-digital converter for converting internal digital audio from the internal audio controller to analog audio for playing on an internal speaker;

ThinkPad T460 | 14" Thin x Leonard

shop.lenovo.com/us/en/laptops/thinkpad/t-series/t460/

ThinkPad T460

TOP

FEATURES RATINGS & REVIEWS **TECH SPECS** TOP ACCESSORIES VIEW CURRENT MODELS

Graphics	Intel HD Graphics 520
Webcam	720p HD Camera
Memory	Up to 32 GB
Storage	7 mm HDD (500 GB - 7200 rpm) SATA SSD (128 GB / 192 GB / 512 GB) SATA OPAL SSD (256 GB)
Audio	Dolby® Home Theater® v4
Battery	Up to 18 Hours (23 WHr + 72 WHr)

Feedback

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Dolby Home Theater v4 x Leonard

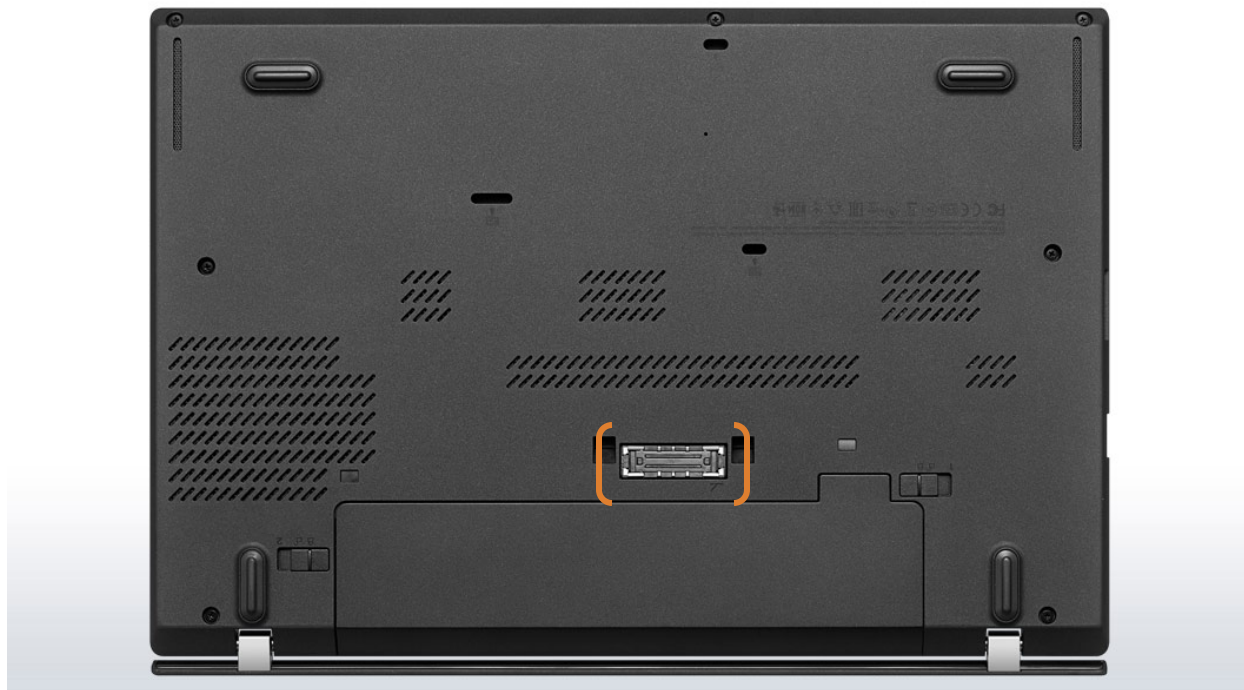
https://www.dolby.com/us/en/technologies/dolby-home-theater-v4.html

Overview Specifications Documents

FEATURE	DOLBY HOME THEATER V4	DOLBY ADVANCED AUDIO V2
DOLBY SURROUND SOUND		
Surround Expansion (Surround Decoder)	✓	✓
Surround Virtualizer for Headphones	✓	
Surround Virtualizer for Built-in Speakers	✓	✓
Dolby Digital Output	✓	
PC Tuning and Optimization		
Built-in Speaker Tuning (Audio Optimizer)	✓	✓
Built-in Speaker Distortion Prevention (Audio Regulator)	✓	✓
Equalization		

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a docking-station connector (shown in orange below) for connecting the portable PC to a docking station,

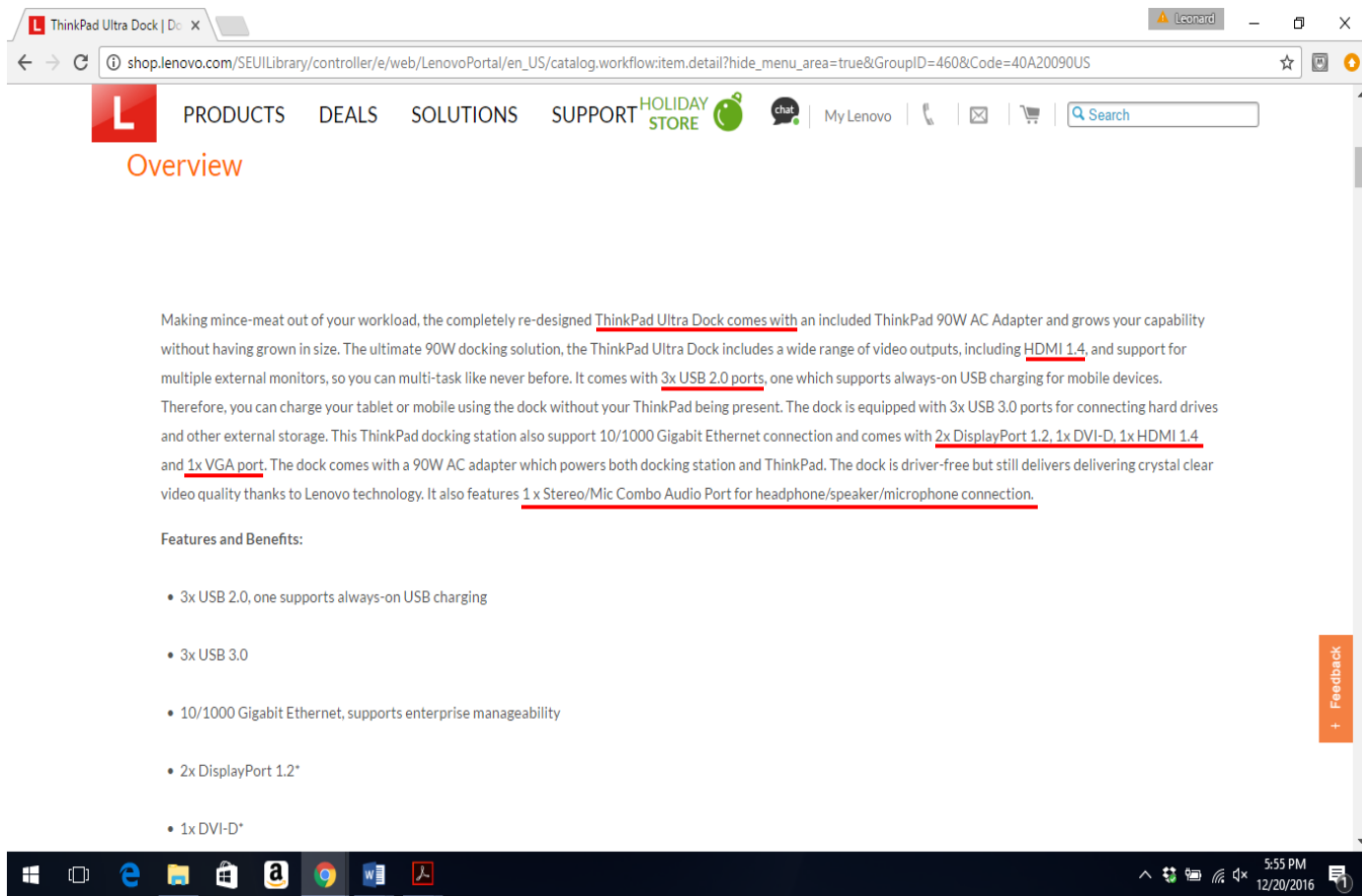


the docking-station connector containing high-speed digital signals for communicating data, address, and control to an expansion bus in the docking station (shown in aqua below), the expansion bus for receiving expansion cards to expand functions performed by the portable PC when the portable PC is connected to the docking station through the docking-station connector;

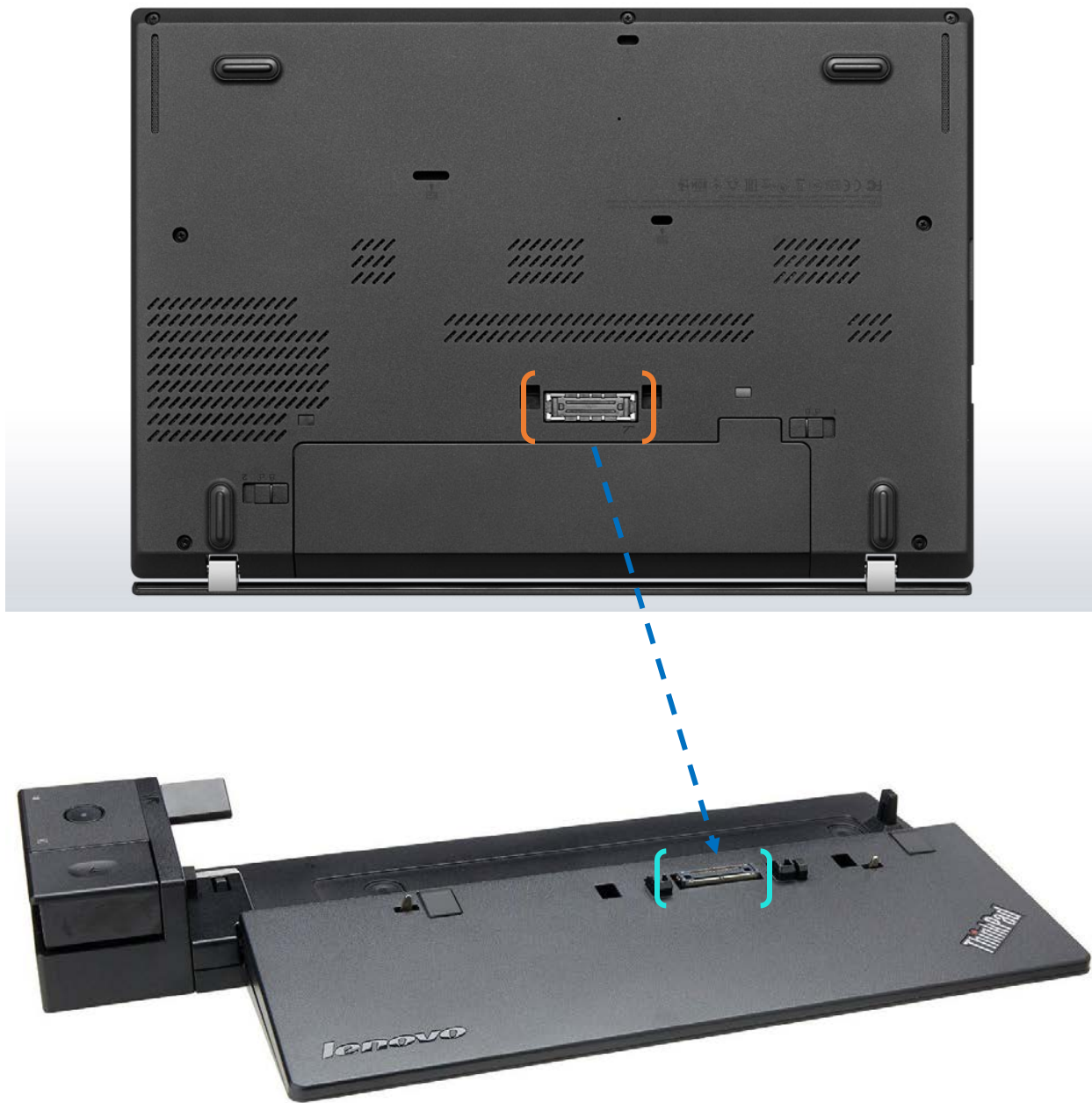




(HDMI ports immediately above are, at minimum, equivalent to the recited claim element.)



an external digital-audio link (shown with dashed blue line below), using digital signals in the docking-station connector, for sending the internal digital audio generated by the internal audio controller to the docking station, and wherein digital-audio signals are sent over the external digital-audio link through the docking-station connector, whereby digital audio is generated inside the portable PC and transmitted as digital audio signals to the docking station:



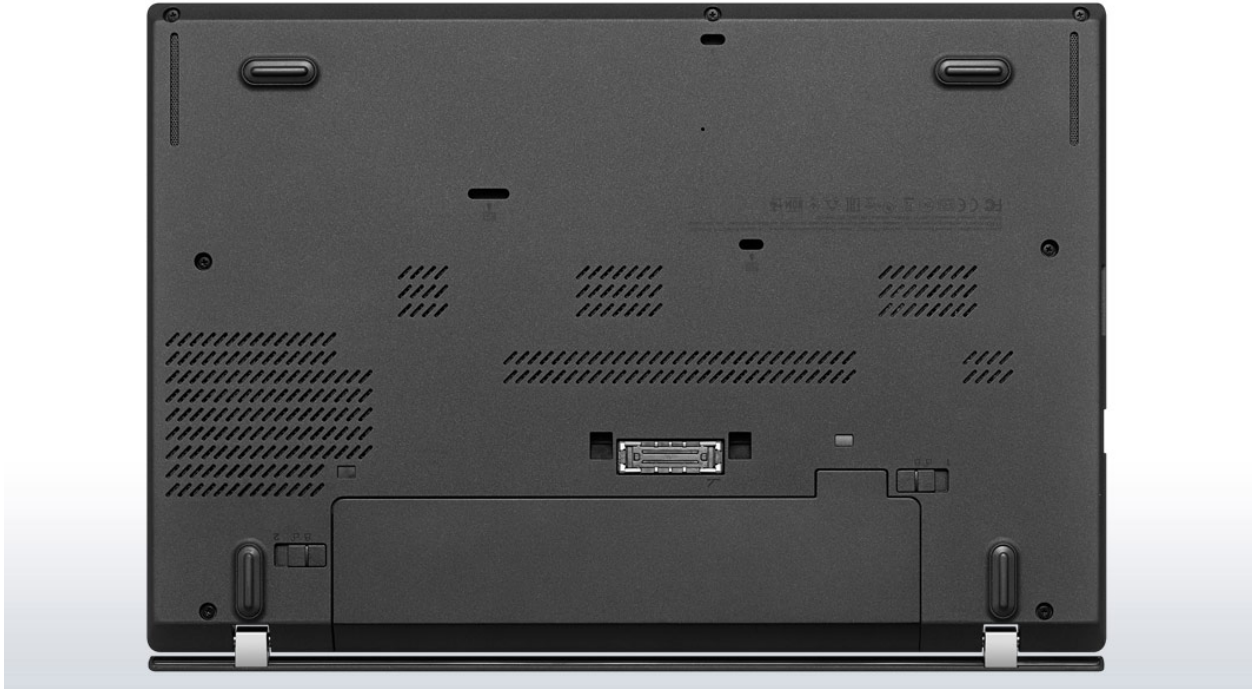
16. Claim 15 of the '148 patent generally recites a portable audio system for a portable personal computer (PC) comprising: internal audio controller means for generating internal digital audio; internal analog-digital converter means for converting digital audio from the internal audio controller means to analog audio for playing on an internal speaker means; docking-station connector means for connecting the portable PC to a docking station, the

docking-station connector means containing high-speed digital signals for communicating data, address, and control to a bus in the docking station, the bus for expanding functions performed by the portable PC when the portable PC is connected to the docking station through the docking-station connector means; external digital-audio link means, using digital signals in the docking-station connector means, using digital signals in the docking-station connector means, for sending the digital audio generated by the internal audio controller means to the docking station, and wherein digital audio signals are sent over the external digital-audio link means through the docking-station connector means, whereby digital audio is generated inside the portable PC and transmitted as digital audio signals to the docking station.

17. As demonstrated in the exemplary images below, the Infringing Instrumentalities infringe claim 15 of the '148 patent because they are portable audio systems for a portable personal computer (PC)

Lenovo ThinkPad T460





ThinkPad Ultra Dock - 90W US





an internal audio controller means for generating internal digital audio; internal analog-digital converter means for converting digital audio from the internal audio controller means to analog audio for playing on an internal speaker means;

ThinkPad T460 | 14" Thin x Leonard

shop.lenovo.com/us/en/laptops/thinkpad/t-series/t460/

ThinkPad T460

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Graphics	Intel HD Graphics 520
Webcam	720p HD Camera
Memory	Up to 32 GB
Storage	7 mm HDD (500 GB - 7200 rpm) SATA SSD (128 GB / 192 GB / 512 GB) SATA OPAL SSD (256 GB)
Audio	Dolby® Home Theater® v4
Battery	Up to 18 Hours (23 WHr + 72 WHr)

Feedback

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Dolby Home Theater v4 x Leonard

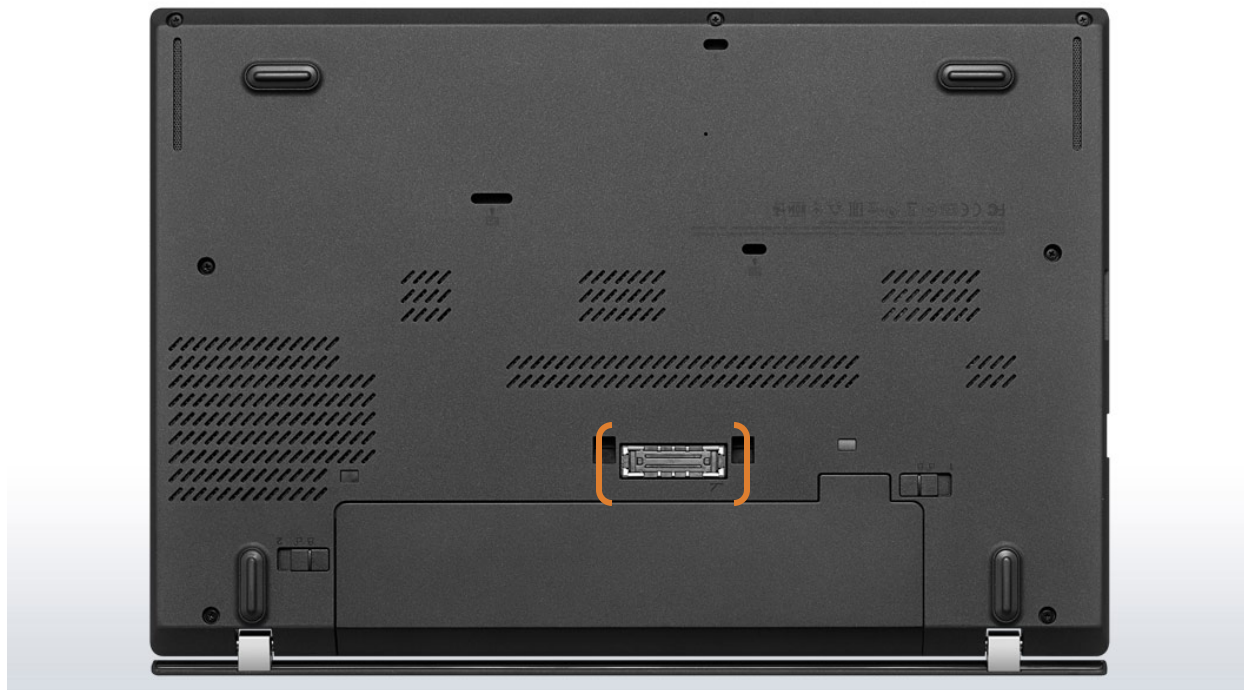
https://www.dolby.com/us/en/technologies/dolby-home-theater-v4.html

Overview Specifications Documents

FEATURE	DOLBY HOME THEATER V4	DOLBY ADVANCED AUDIO V2
DOLBY SURROUND SOUND		
Surround Expansion (Surround Decoder)	✓	✓
Surround Virtualizer for Headphones	✓	
Surround Virtualizer for Built-in Speakers	✓	✓
Dolby Digital Output	✓	
PC Tuning and Optimization		
Built-in Speaker Tuning (Audio Optimizer)	✓	✓
Built-in Speaker Distortion Prevention (Audio Regulator)	✓	✓
Equalization		

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a docking-station connector means (shown in orange below) for connecting the portable PC to a docking station,



the docking-station connector means containing high-speed digital signals for communicating data, address, and control to a bus in the docking station (shown in aqua below), the bus for expanding functions performed by the portable PC when the portable PC is connected to the docking station through the docking-station connector means;





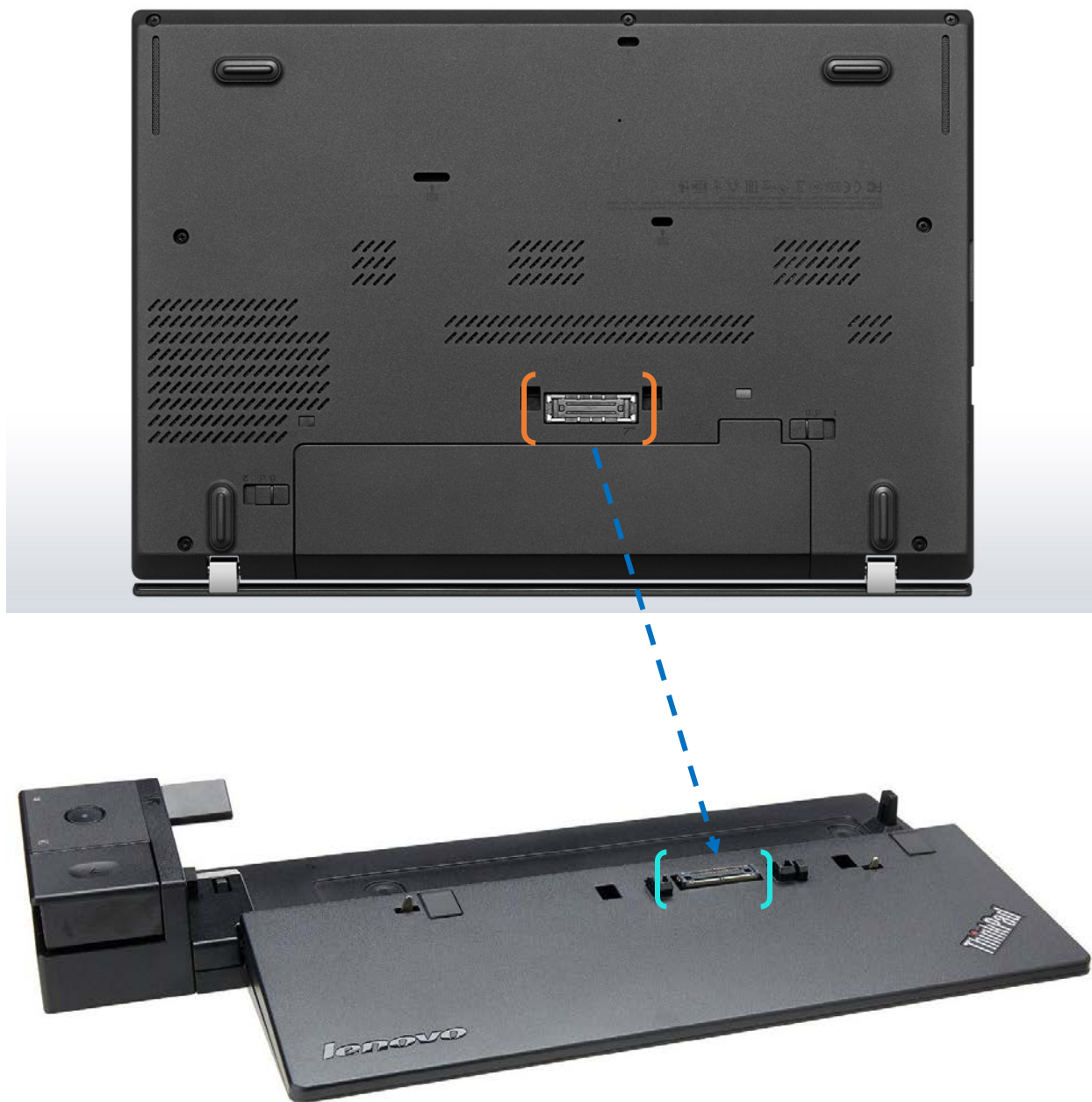
(HDMI ports immediately above are, at minimum, equivalent to the recited claim element.)

Making mince-meat out of your workload, the completely re-designed ThinkPad Ultra Dock comes with an included ThinkPad 90W AC Adapter and grows your capability without having grown in size. The ultimate 90W docking solution, the ThinkPad Ultra Dock includes a wide range of video outputs, including HDMI 1.4, and support for multiple external monitors, so you can multi-task like never before. It comes with 3x USB 2.0 ports, one which supports always-on USB charging for mobile devices. Therefore, you can charge your tablet or mobile using the dock without your ThinkPad being present. The dock is equipped with 3x USB 3.0 ports for connecting hard drives and other external storage. This ThinkPad docking station also support 10/1000 Gigabit Ethernet connection and comes with 2x DisplayPort 1.2, 1x DVI-D, 1x HDMI 1.4 and 1x VGA port. The dock comes with a 90W AC adapter which powers both docking station and ThinkPad. The dock is driver-free but still delivers delivering crystal clear video quality thanks to Lenovo technology. It also features 1 x Stereo/Mic Combo Audio Port for headphone/speaker/microphone connection.

Features and Benefits:

- 3x USB 2.0, one supports always-on USB charging
- 3x USB 3.0
- 10/1000 Gigabit Ethernet, supports enterprise manageability
- 2x DisplayPort 1.2*
- 1x DVI-D*

an external digital-audio link means (shown with dashed blue line below), using digital signals in the docking-station connector means, for sending the internal digital audio generated by the internal audio controller means to the docking station, and wherein digital-audio signals are sent over the external digital-audio link means through the docking-station connector means, whereby digital audio is generated inside the portable PC and transmitted as digital audio signals to the docking station:



18. Plaintiff has been harmed by Defendants' infringing activities.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff demands judgment for itself and against Defendants as follows:

- A. An adjudication that each Defendant has infringed the '148 patent;
- B. An award of damages to be paid by Defendants adequate to compensate Plaintiff for Defendants' past infringement of the '148 patent, and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees; and
- D. An award to Plaintiff of such further relief at law or in equity as the Court deems just and proper.

Dated: January 3, 2017

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