

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

SWIPETECH LICENSING LLC,

Plaintiff

v.

HAUPPAUGE DIGITAL INC.,

Defendant

Case No.

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Swipetech Licensing LLC (“Swipetech” or “Plaintiff”) files this Complaint for patent infringement against Hauppauge Digital Inc. (“Defendant” or “Hauppauge”), and alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under 35 U.S.C. § 1 *et seq.*

PARTIES

2. Plaintiff is a limited liability company organized and existing under the laws of the State of Texas with its principal place of business in Austin, Texas.

3. Upon information and belief, Hauppauge is a corporation organized and existing under the laws of the State of Delaware. Hauppauge may be served through its registered agent United Corporate Service, Inc. at 974 Walker Road, Suite C, Dover, Delaware 19904.

JURISDICTION AND VENUE

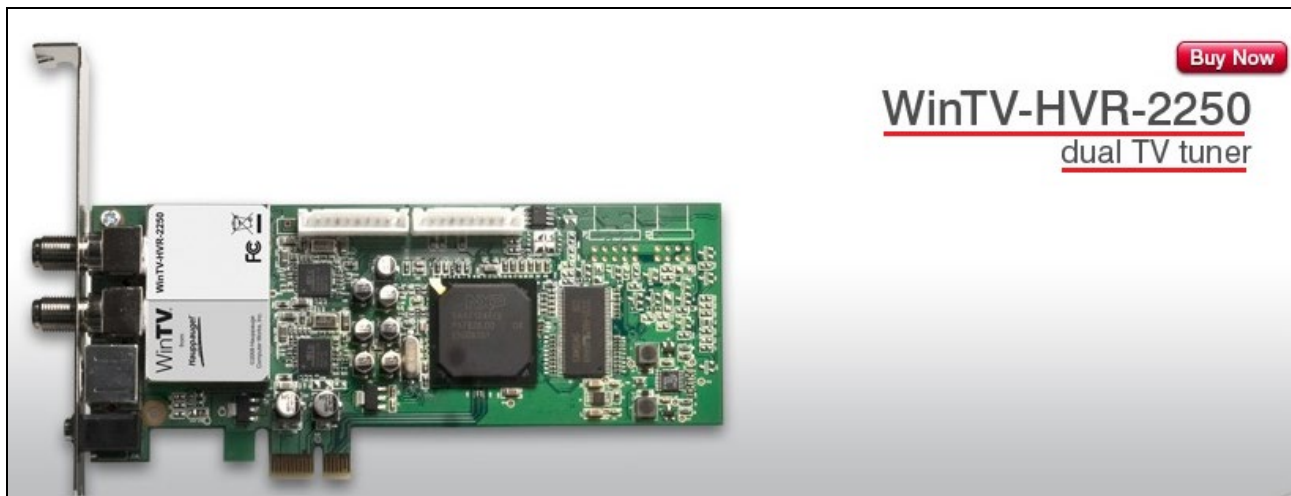
4. This Court has original jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. Defendant is subject to personal jurisdiction of this Court based upon it being a Delaware corporation, such that Defendant is essentially at home in the State of Delaware.

6. Venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant resides in this judicial district.

IDENTIFICATION OF THE ACCUSED PRODUCT

7. On information and belief, Defendant provides for its customers' use the Hauppauge WinTV-HVR-2250 ("the Accused Product"), shown below:



COUNT I

8. Plaintiff incorporates the above paragraphs as if fully set forth herein.

9. Plaintiff is the owner, by assignment, of U.S. Patent No. 6,985,192 ("the '192 Patent"), entitled "SELECTIVE GAIN ADJUSTMENT TO AID CARRIER ACQUISITION IN A HIGH DEFINITION TELEVISION RECEIVER, which issued on January 10, 2006. A copy of the '192 Patent is attached as Exhibit PX-192.

10. The '192 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

11. Defendant has been and is now infringing one or more claims of the '192 Patent under 35 U.S.C. § 271 by making, using, selling, and offering to sell the Accused Product in the United States without authority.

12. Claim 1 of the '192 Patent recites:

1. Method of performing carrier acquisition of a television signal having a pilot tone centered around a carrier frequency, the method comprising:

amplifying said television signal using a first amplification level in response to a control signal; and

acquiring the carrier frequency from said amplified television signal; and

amplifying said television signal, in response to acquiring the carrier frequency, using a second amplification level, where said first amplification level is greater than said second amplification level.

13. More particularly, Defendant infringes at least claim 1 of the '192 Patent.

14. On information and belief, Defendant makes, uses, sells, and offers to sell the Accused Product or has made, used, offered to sell, and sold the Accused Product, which practices a method of performing carrier acquisition (e.g., RF carrier acquisition) of a television signal (e.g., ATSC TV Signal) having a pilot tone centered around a carrier frequency.

Dual TV for Windows Media Center.**Watch and record up to two TV channels at the same time!****WinTV-HVR-2250 has these great features on one half height PCIe board:**

- Dual tuner TV board for your PC:
 - Dual digital TV receivers for ATSC or clear QAM. Watch and record two ATSC or clear QAM digital TV programs at the same time. Watch and record all ATSC and QAM formats, including the high definition 1080i format. Clear QAM digital TV channels are TV channels which are broadcast "in the clear" on your cable TV network.
 - Dual built-in hardware MPEG-2 encoders for recording analog cable TV, for the best system performance. Watch and record two cable TV programs at the same time. When recording analog cable TV, the dual built in hardware MPEG-2 encoders let your PC run at full speed!
 - Built-in antenna splitter allows you to make one connection to either cable TV or an ATSC antenna, and watch and record up to 2 channels.
 - New feature! Now with on-board IR remote control with dual IR blasters for Windows Media Center!
- Windows Media Center compatible. Now supports Windows 7 and Windows 8 (with Media Center add on).
- Single slot PCI Express (PCIe) X1 board, half height.

Television Frequencies*From The RadioReference Wiki*

⚙ Actions

- It is not possible to receive digital TV audio with a scanner or AM/FM receiver.
- Before the transition from analog to digital TV in 2009, audio from analog TV stations could be received in wideband FM (WFM) mode. Each audio channel used 100 kHz bandwidth.
- The analog video and analog audio carrier frequencies listed in the table below are for NTSC analog TV and are **not applicable** to ATSC digital TV (DTV or HDTV).
- Some analog TV stations were offset + or - 10 kHz (0.01 MHz) from the standard frequencies to reduce co-channel interference.
- The 8-VSB modulation used in ATSC (DTV) has a pilot carrier that serves as a reference frequency for DTV receivers and can be heard on an AM or FM receiver. The pilot carrier is approximately 310 kHz (0.31 MHz) above the lower band edge. The exact frequency used may vary because the transmitted signal may be offset slightly to reduce interference.

15. The method practiced by the Accused Product includes a step of amplifying said television signal using a first amplification level (e.g., an amplification gain set by an LNA) in response to a control signal (e.g., a gain control signal from an AGC control). On information and belief, the Accused Product comprises an NXP TDA18271HD Silicon Tuner IC, which itself comprise an AGC control. A copy the NXP TDA18271HD data sheet is attached as PX-1. The AGC control sends control signals to an amplifier LNA to amplify received signal to an amplification level, as shown below:

Hauppauge Computer Works, Inc., one of the world's leading PC TV receiver manufacturers, has selected the NXP SAA7164E PC TV system-on-chip (SOC), as well as its latest generation silicon tuner TDA18271HD, to power the Hauppauge WinTV-HVR-2250 PCI Express tuner – a unique dual hybrid PC TV tuner for the North American market with hardware encoding, recently awarded the PC Magazine Editor's Choice award. With the WinTV-HVR-2250, users can watch a digital or analog TV program on their PC screen, while watching, pausing, or recording a second program of any type at the same time. The Hauppauge WinTV-HVR-2250 supports popular analog and digital TV formats used in North America, including NTSC analog terrestrial and cable TV, over-the-air ATSC high-definition digital TV, plus clear QAM digital cable TV.

“By working with NXP, we’ve been able to design the first dual analog/digital PC-TV tuner board for the North American market. The WinTV-HVR-2250 is a solution that gives our customers the freedom to view, capture and record TV programs when and how they want

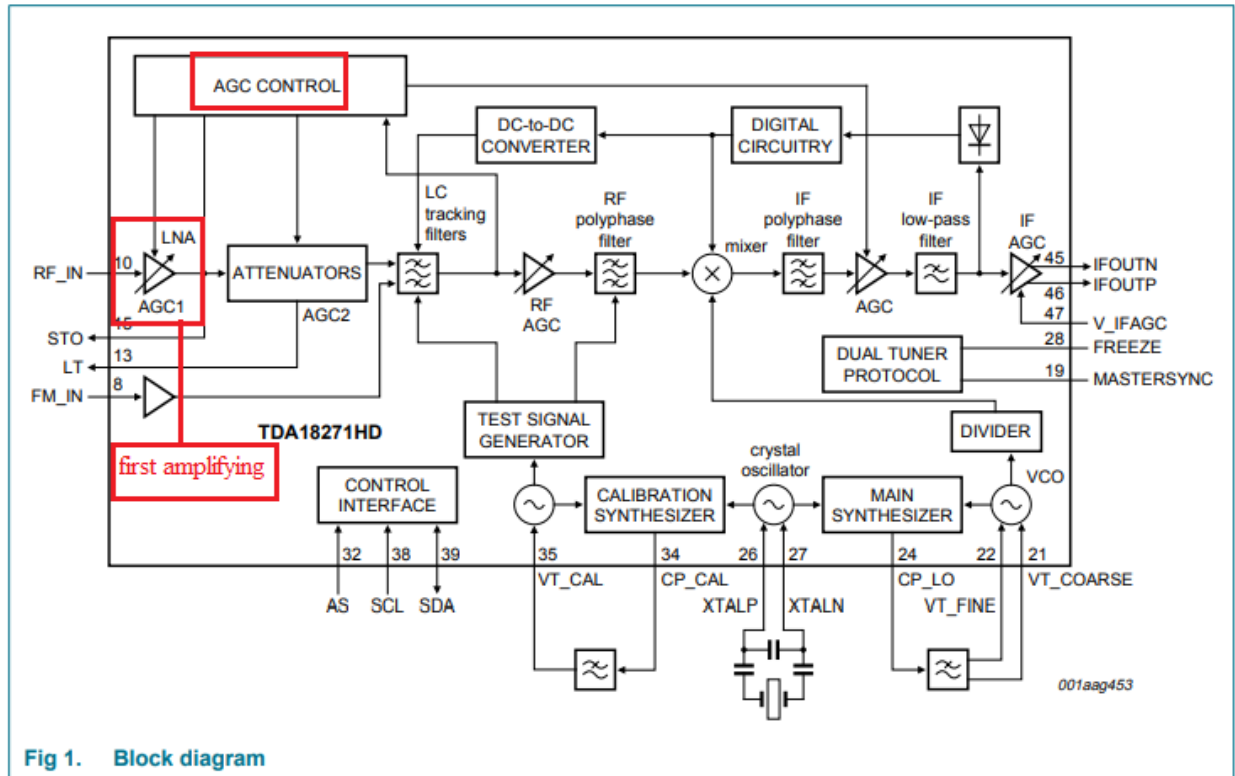
Hauppauge takes full advantage of the SAA7164 dual-channel PC TV SOC offered by NXP, the independent semiconductor company founded by Philips. The highly integrated NXP SAA7164 SOC enables true watch and record capability, integrating dual-channel TV capability with native hardware encoding to reduce the CPU overhead demands on consumer PC systems. The single-slot Hauppauge WinTV-HVR-2250 PCI Express tuner board also uses a pair of NXP TDA18271HD tuner chips to decode NTSC, ATSC and clear QAM digital cable signals.

Overview/features

- Low-profile PCI Express (PCIe) ×1 board
- Two analog tuners, each with their own hardware MPEG-2 encoders
- Two digital TV receivers for ATSC or clear QAM

Components used

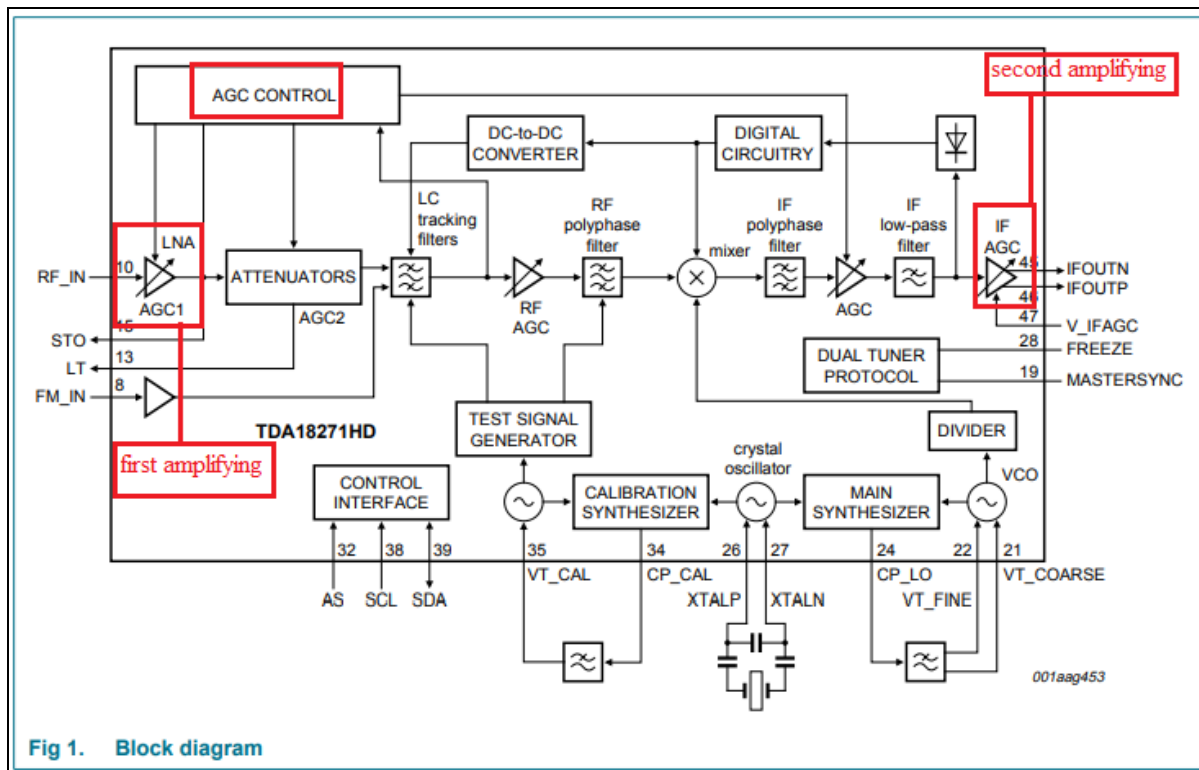
- NXP SAA7164
- Pair of NXP TDA18271HD tuner chips



16. The method practiced by the Accused Product includes a step of acquiring the carrier frequency from said amplified television signal. Upon information and belief, the Accused Product acquires the RF carrier frequency and down-converts the received signals to an IF signal. Moreover, as shown above, the Accused Product comprises an NXP TDA18271HD Silicon Tuner IC, which itself comprise an AGC control. The AGC control sends control signals to an amplifier LNA to amplify received signal to an amplification level.

- Fully integrated RF tracking filters for unwanted signal suppression
- Fully integrated IF selectivity (no need for external SAW filters)
- Worldwide multistandard terrestrial (all analog and digital worldwide terrestrial standards supported)
- Integrated loop-through and slave tuner output for straightforward multi-Silicon Tuner application
- Fully integrated oscillators with no external components
- Alignment free
- Integrated wide-band gain control
- Single 3.3 V power supply
- Low power consumption
- Crystal oscillator output buffer (16 MHz) for single crystal applications
- I²C-bus interface compatible with 3.3 V and 5 V microcontrollers
- Three Standby modes
- RoHS packaging

17. The method practiced by the Accused Product includes a step of amplifying said television signal (e.g., an ATSC TV signal), in response to acquiring the carrier frequency, using a second amplification level (e.g., an amplification gain set by IF gain), where said first amplification level (e.g., an amplification gain set by amplifier LNA) is greater than said second amplification level (e.g., an amplification gain set by IF gain). On information and belief, the AGC control of the NXP TDA18271HD Silicon Tuner IC sends a control signal to an amplifier LNA (i.e., AGC1) to amplify the received signal to an amplification level. The gain range of the AGC1 is 6-15dB. The received signal also passes through a second amplifier, an IF gain amplifier which has a range of 0-12dB only. Thus, for a received TV signal when the maximum gain level of AGC1 is selected, the first amplification level is greater than said second amplification level, as shown below:



Address	Register	Bit	Symbol	Access	Value	Description
03h	EP1	7	POWER_LEVEL[8]	R		AGC2 gain, attenuator voltage gain including load, the attenuator load is 50 Ω (allows the maximum gain of -6 dB)
02h	PL	7	POWER_LEVEL[7]			
					00	
					01	
					10	
					11	
		6 to 5	POWER_LEVEL[6:5]	R		AGC1 gain, LNA voltage gain, the LNA voltage gain assumes a 75 Ω source impedance and a low output impedance
					00	
					01	
					10	
					11	

Bit	Symbol	Access	Value	Description
7	FM_RFN	R/W		selection which input is fed to RF filter
			1	FM input (RF LNA on; FM LNA on)
			0*	RF input (RF LNA on; FM LNA off)
6	XTOUT_ON	R/W	1*	16 MHz on pins XTOUT
			0	not 16 MHz on pins XTOUT
5	-	R/W	1*	must be set to logic 1
4 to 2	IF_LEVEL[2:0]	R/W		IF output level selection and attenuation with regard to 2 V (p-p)
			000*	2 V (p-p); 0 dB
			001	1.25 V (p-p); 4 dB
			010	1 V (p-p); 6 dB
			011	0.8 V (p-p); 8 dB
			100	not used
			101	not used
			110	0.6 V (p-p); 10.4 dB
			111	0.5 V (p-p); 12 dB

18. Plaintiff has been damaged by Defendant's infringing activities.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the Court enter judgment against Defendant:

1. Declaring that Defendant has infringed the '192 Patent;
2. Awarding Plaintiff its damages suffered as a result of Defendant's infringement of the '192 Patent;
3. Awarding Plaintiff its costs, attorneys' fees, expenses, and interest; and
4. Granting Plaintiff such further relief as the Court finds appropriate.

JURY DEMAND

Plaintiff demands trial by jury under Fed. R. Civ. P. 38 on all issues so triable.

Dated: November 30, 2021

Respectfully submitted,

/s/ David W. deBruin

David W. deBruin (#4846)
GAWTHROP GREENWOOD, PC
3711 Kennett Pike, Suite 100
Wilmington, DE 19807
(302) 777-5353
ddebruin@gawthrop.com

Of Counsel:

Raymond W. Mort, III (*pro hac* to be filed)
Texas State Bar No. 00791308
raymort@austinlaw.com
Zachary H. Ellis (*pro hac* to be filed)
Texas State Bar No. 24122606
zakellis@austinlaw.com

THE MORT LAW FIRM, PLLC
100 Congress Ave, Suite 2000
Austin, Texas 78701
Tel/Fax: (512) 865-7950

ATTORNEYS FOR PLAINTIFF

