

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

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Federal Communications Commission
Bureau / Office

In the Matter of

UltraVision Security Systems, Inc.
Experimental License WD2XYH

File No. 0105-EX-PL-2006

To: Office of Engineering and Technology
Experimental Licensing Branch

REPLY TO OPPOSITION OF ULTRAVISION SECURITY SYSTEMS, INC.

The Association for Maximum Service Television, Inc. ("MSTV")¹ writes in response to the opposition of UltraVision Security Systems, Inc. ("UltraVision") to MSTV's request² that the Commission rescind or modify UltraVision's experimental license.

UltraVision's Opposition³ relies on unfounded assumptions that its experimental operations will not cause harmful interference to over-the-air television. The record in this and other proceedings suggests otherwise. The public interest requires protecting the public's reception of over-the-air television from interference caused by UltraVision's operations. Therefore, rescission of the experimental license or, at a minimum, the imposition of notice and pre-coordination conditions is necessary.

¹ MSTV is a nonprofit trade association of local broadcast television stations committed to achieving and maintaining the highest technical quality of the local broadcast system.

² *Petition to Rescind or Modify Experimental License* ("Petition"), File No. 0105-EX-PL-2006 (Feb. 27, 2007).

³ *Opposition of UltraVision Security Systems, Inc. to "Petition to Rescind or Modify Experimental License" of MSTV*, ("Opposition"), File No. 0105-EX-PL-2006 (March 14, 2007).

I. THERE IS A DEMONSTRATED, ACTUAL RISK OF INTERFERENCE TO TELEVISION RECEPTION FROM ULTRAVISION'S DEVICE.

UltraVision does not dispute that its device caused significant amounts of interference to television reception in the test at MSTV's offices on November 9, 2006, which was witnessed by both UltraVision and MSTV. The test demonstrated that both analog and digital television reception is susceptible to interference from the ultrawideband device's operations.⁴ For example, analog reception on channel 20 was so bad that the entire picture turned into "snow," while the digital picture on channels 34 and 35 broke up, froze, and went blank.⁵ Despite this evidence, which MSTV presented in its Petition, UltraVision incorrectly claims that "nothing more than [MSTV's] own speculation" supports the request for license rescission or modification.⁶

Moreover, MSTV has already demonstrated that devices operating in the television broadcast spectrum at the Section 15.209 out-of-band emission limits cause interference to over-the-air television reception.⁷ Put simply, the Part 15 limits are not designed for devices that actually operate in the spectrum allocated for television broadcasts, and UltraVision's purported compliance with those limits is a non sequitur in the determination of the risks that the device poses.⁸ The Section 15.209 limits are 200 microvolts per meter (46 dBu)

⁴ *Comments of MSTV* ("MSTV Comments"), Declaration of Bruce Franca, ET Dkt. No. 06-195 (filed Feb. 20, 2007).

⁵ *Id.* at para. 4.

⁶ Opposition at 1 (further asserting that MSTV has failed to allege or establish that UltraVision causes interference – two things that MSTV plainly *has* done).

⁷ *Joint Comments of MSTV and NAB* ("White Spaces Comments"), ET Dkt. No. 04-186 (filed Jan. 31, 2007) at 23.

⁸ See Opposition at 2.

in the 216-960 band⁹ – this is *higher* than the signal level of a digital television station at its protected contour (41 dBu). For devices actually permitted to operate in the television spectrum, the Commission has proposed that the interfering signal be 23 dB *less* than the television signal in order to avoid harmful interference (*i.e.*, 18 dB).¹⁰ Accordingly, UltraVision’s proposed “compliance” with the Section 15.209 limits will do little to protect viewers from harmful interference.

These risks are further magnified by the fact that the operations of UltraVision’s device are ultrawideband. The operations are not limited to a single television channel or a portion thereof; instead, they span the entire 216-700 MHz space, risking serious interference to dozens of television broadcast channels. The ultrawideband operations could mean the loss of all of the television broadcast channels in this band – in total, thirty-eight channels (from channel 14 to channel 52, inclusive) are potentially affected. As noted in MSTV’s Petition, the risks to reception of digital channel 35 are particularly salient, but the “analog and digital signals of many other stations also pass through the test site and their reception could be harmed as well.”¹¹

II. THE FULL EXTENT OF THE HARM IS STILL UNKNOWN.

The operations of the UltraVision device are certain to cause interference to television reception – that much has been demonstrated firsthand to both UltraVision and to MSTV in demonstrations conducted at MSTV’s offices in November 2006. UltraVision, however, has thus far prevented an examination of the full extent of the harm, having ignored

⁹ 47 C.F.R. § 15.209 (measured at three meters); *see also id.* (noting the general rule that “fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands... 470-806 MHz”).

¹⁰ *Unlicensed Operation in the TV Broadcast Bands*, NPRM, ET Dkt. No. 04-168, 19 FCC Rcd 10018 (rel. May 25, 2004), at ¶¶ 29 *et seq* (digital TV and Class A stations).

¹¹ Petition at 2.

MSTV's repeated requests to allow testing of its device by one or more respected and independent engineering firms. MSTV sought out these tests in good faith, and is disappointed that UltraVision has declined to cooperate.

As a result of its refusal to subject its proposed operations to further testing, UltraVision has failed to demonstrate under what conditions, if any, its device could operate without undermining the public's reception of free, over-the-air television services. In light of this lack of data, the only responsible course is to rescind UltraVision's experimental license.¹²

III. RESCISSION OF THE LICENSE IS WARRANTED GIVEN THE DEMONSTRATED AND PREDICTED INTERFERENCE RISKS.

Given the known and predicted interference problems, the Commission should revoke the experimental license. UltraVision's suggestion that the device's "low duty cycle" alleviates interference concerns is incorrect and does not provide a basis for retaining the license.¹³ MSTV has already shown that the "the relatively short pulse and low duty cycle of the UltraVision device does not prevent interference to TV reception."¹⁴ Indeed, there appears to be no significant difference between the interference caused by a continuous signal of similar signal strength and UltraVision's signal.¹⁵ MSTV suspects that the pulses interfere with the corrections made by the equalizer, effectively creating continuous interference.¹⁶ Given the first-hand and undisputed interference test results, MSTV respectfully submits that Section 5.83, which

¹² MSTV reiterates its willingness to work with UltraVision going forward in order to test the device and to assist with pre-coordination issues.

¹³ See Opposition at 2, n.7.

¹⁴ MSTV Comments, Declaration of Bruce Franca at para. 5.

¹⁵ *Id.*

¹⁶ *Id.*

provides that experimental licenses are subject to discretionary cancellation or change by the Commission, is applicable.

IV. IT WOULD BE CONTRARY TO THE PUBLIC INTEREST TO PERMIT OPERATIONS WITHOUT REQUIRING NOTICE AND PRE-COORDINATION.

In the alternative, the experimental license should require UltraVision to comply with notice and pre-coordination requirements. The shut-down provision in the experimental license is bound to fail because neither viewers nor broadcasters will be aware of the source of the interference. UltraVision's proposed voluntary license condition of not operating within 78 feet of residences after February 18, 2009 (452 feet until then) is not acceptable. UltraVision states that although "MSTV claims" that the device can cause interference to television reception up to those distances, according to MSTV's own calculations, there will be no risk beyond those distances.¹⁷ That statement mischaracterizes what MSTV has said.

MSTV has indeed shown that devices operating in the television spectrum at Part 15.209 out-of-band emission limits will cause interference to digital television reception at distances of up to 78 feet and interference to analog television reception at distances of up to 452 feet.¹⁸ But there is still no data as to the exact minimum distances at which UltraVision's ultrawideband operations must operate to protect the public's free, over-the-air television service. As noted above, UltraVision spurned the opportunity to pursue further tests with MSTV, and results of tests conducted in the pending "white spaces" rulemaking proceeding cannot be presumed to apply to an ultrawideband device like UltraVision's. Also, the offer to refrain from operating within the specified distances from residences overlooks the fact that

¹⁷ Opposition at 3-4.

¹⁸ White Spaces Comments at 22-23.

televisions at places of business (and portable televisions) can be an important source of news and information, including emergency information.

CONCLUSION

There is no doubt that UltraVision's operations can cause harmful interference to the reception of both analog and digital television signals – both MSTV and UltraVision have witnessed this fact first-hand. UltraVision's reliance on certain limits set forth in Part 15 is misplaced. Those limits are not designed for ultrawideband operations located in the television spectrum. Indeed, the Commission has suggested that devices operating in the television spectrum be 23 dB less than co-channel television signals, not 5 dB more. The experimental license should be rescinded to avoid the risk of harmful interference to the public's reception of free, over-the-air television. In the alternative, the public interest requires notice and pre-coordination.

Respectfully submitted,

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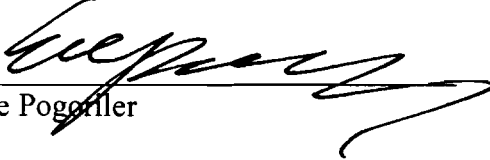
March 21, 2007

CERTIFICATE OF SERVICE

I, Eve Pogoriler, an attorney at the law firm of Covington & Burling LLP, do hereby certify that on this 21st day of March, 2007, I caused a copy of the foregoing "Reply to Opposition of UltraVision Security Services, Inc." to be sent via first-class U.S. Mail, postage prepaid, to the following:

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