
TV Band Low Power Devices

the need for Coexistence with IEEE 802.22

Jerry Kalke - CBS Television

TV Band Low Power Devices

They Are Nearly Everywhere

It's not Just Wireless Microphones

Licensed Part 74 Devices

- Professional Wireless Intercom Systems
- Wireless Video Assist Systems
- Wireless IFB (Interrupted Feed Back)
- Wireless Microphones

Licensed Part 74 Devices

- Licensed in Same Band used by TV Broadcasting

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- Prior Local Coordination Makes This Function Interference Free in Each Market Now

Licensed Part 74 Devices

- Licensed in Same Band used by TV Broadcasting
- Prior Local Coordination Makes This Work in Each Market
- 802.22 is intended to share the TV Broadcasting Spectrum as well, but Without the Benefit of Prior Coordination with the Licensed Low Power Devices

802.22

- WRAN Systems Must Operate in a manner that Does Not Interfere with the Licensed Part 74 Devices

Licensed Users Include

- TV Broadcasting Stations & Networks
- TV Cable Networks
- Sports Production
- Concerts, Stage Productions, Theme Parks
- AM & FM Radio Stations
- Film Production
- Cable Systems
- Educational Program Production
- Federal Government
- Law Enforcement

Television News

- Local News in Every Market Everyday
- National & International News
Everyday
- CBS NBC ABC FOX CNN CNBC
MSNBC C-Span
- TV News Crews Show up Anytime
Anywhere





UHF SYNTHESIZED TRANSMITTER
UTX-B1

Studio Productions

- News Studios WMs & Intercoms
- Network Programming Live and Recorded use WMs & Intercoms
- Movie Studio Sound Stages use WMs & Intercoms
- Wireless Video Assist









Sports

- CBS NBC ABC FOX ESPN TBS Golf Channel
- Football * Baseball * Basketball * Golf
- Every Televised Sport Uses Part 74 Devices
- Football: Players, Referees, Parabolic Sideline Mics
- Baseball: Bat Crack, Base Pads
- Basketball: Hoops, Shoes





Radio & Location Movies

- Radio Stations use Wireless Mics on Remote Broadcasts
- Film Productions use Wireless Mics and Intercoms on Location Shoots
- Movie Makers use Wireless Camera “Video Assist” to allow Director to see what the camera sees
- TV EFP uses Wireless Camera Monitoring “Video Assist” for Movie Like Single Camera Shoots



Cable & School Districts

- Local Cable News Channels i.e. NY & Wash DC
- Local Cable Public Access Programming
- School Districts using Licensed Microwave Program Dist. use Licensed Part 74 Wireless Microphones for their Classroom Productions

Federal Gov & Law Enforcement

- Meetings & Presentations
- Armed Forces Television Live and Field Productions
- Police / FBI Covert Recordings, “Wearing a Wire” and Surveillance Operations Anytime Anywhere

What's at Stake

- It has been Quoted that there are at Least 25,000 Licensed Part 74 Low Power Devices in Service in the USA
- Each Device is Critical to the Everyday Production of TV and Film Media
- Critical to All Entertainment and News that we Take for Granted Every Waking Hour
- Critical to Super Bowls, Political Conventions, Award Shows, Olympic Games and Disaster Coverage
- And Most Importantly: Critical to Police Officers and Investigators who Protect us

Summary

- WRAN Systems as Proposed are Mandated to not interfere with Licensed Systems
- We have Concluded that Significant Work needs to be done to Protect Licensed Incumbent Part 74 Low Power Devices
- There is no Silver Bullet Solution to Interference from WRAN Systems into Low Power Devices
- Focused discussions need to take place to Explore all Alternatives and Offer Up for Consideration the Most Effective and Least Costly Interference Solutions

Finally

- The Par which is the subject of tonight's discussion is proposed to focus on this critical and complex issue while allowing the other matters before 802.22 to proceed in separately and in parallel