



Industry
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RADIO ADVISORY
BOARD OF CANADA
CONSEIL CONSULTATIF
CANADIEN DE LA RADIO

***TV White Space
Stakeholder Meeting
Ottawa, May 14, 2013***

Colin Bernard
Letrosonic



Breaking Down the ISED RSS 123 Ruling

Colin Bernard, Director of Operations
Lectrosonics Canada



ISED Update

Broadcasting Service

RABC – September 19th, 2019

TV

- 600 MHz Repack Status

- Phase 3 and 4 were successfully completed.
- The next Canadian stations to transition to a new channel, are scheduled to shutdown their current channel on May 1, 2020.

Note, for application procedures during the 600 MHz transition, please refer to [BPR-11](#)

Phase Status

Phase #	Phase end date	Status	Beginning of On-air testing period
7	January 17, 2020	1 Canadian station, this station was approved to stay on its current channel	October 19, 2019
9	May 1, 2020	Operators are required to submit their application one year prior to the phase end date	March 14, 2020
10	July 3, 2020		May 2, 2020
11	November 30, 2020		October 9, 2020
12	April 9, 2021		February 26, 2021
13	August 27, 2021		July 16, 2021
14	January 14, 2022		December 3, 2021

The licence exempt operation of low power radio apparatus within the 614-698 MHz band will be permitted to continue until the 600 MHz spectrum auction is completed.

Licence exempt operation is prohibited within the bands 617-652 MHz and 663-698 MHz following the completion of the auction.

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11341.html>



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RSS-210

- Annex G: (i) replaces the term “low-power apparatus” with “wireless microphones”.
- (ii) removes the bands 616-652 MHz and 663-698 MHz to reflect the Department decisions in SAB-003-17, Low-power Radio Apparatus, Including Wireless
- Microphones, in the Band 614-698 MHz and in [Decision on the Technical, Policy and Licensing Framework for Wireless Microphones](#). For elaboration, see: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11490.html>



- **ISED doc RSS- 210 covers (Unlicensed wireless microphones) LPA (low power apparatus)**
- Wireless microphones can continue to operate on a voluntarily licensed basis across the TV broadcasting bands (54-72 MHz, 76-88 MHz, 174-216 MHz and **470-608 MHz**).
- Wireless microphones are permitted to operate on a **voluntarily licensed basis** within the upper portion of the **duplex gap (657-663 MHz)** subject to new technical rules that will be published in applicable RSS updates.(RSS 210)
- Only eligible applicants (as defined in section 6.1.2) may apply for a voluntary licence.
- Voluntarily licensed wireless microphone operators must continue to register their operation with a white space database in order to be protected from harmful interference from white space devices.



Latest Industry Canada Decision

RSS-123 Licensed Wireless Microphones

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01323.html>

RSS-123, Issue 4, August 2019



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CPC-2-1-11

Licensed Low-Power Apparatus

- Low-power radiocommunication apparatus (LPA) typically include devices such as cordless telephones, baby monitors, Family Radio Service (FRS) portable two-way radios, wireless microphones and cameras, and apparatus used for remote cue and control purposes or the synchronization of video camera signals.
- The requirement to obtain a radio licence for an LPA is dependent upon the Radio Standards Specification (RSS) under which the LPA has been approved for use in Canada. LPA certified under RSS-123 are subject to radio licensing pursuant to subsection 4(1) of the *Radiocommunication Act* and the policies contained within this document. Licence-exempt LPA are approved under RSS-210 or RSS-310 only.
- Note that licensing requirements do not apply to transmitters used for broadcasting.

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08883.html#s5.2>



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In the frequency bands 941.5-952 MHz, 953-960 MHz, 6930-6955 MHz, and 7100-7125 MHz, **eligible applicants for licensing are defined as:**

“Broadcasters and other program producers, large venue operators and owners, professional sound companies, and theatre, music, sporting venues, and other similar event organizations that require high-quality audio wireless microphones as part of their productions or events.”



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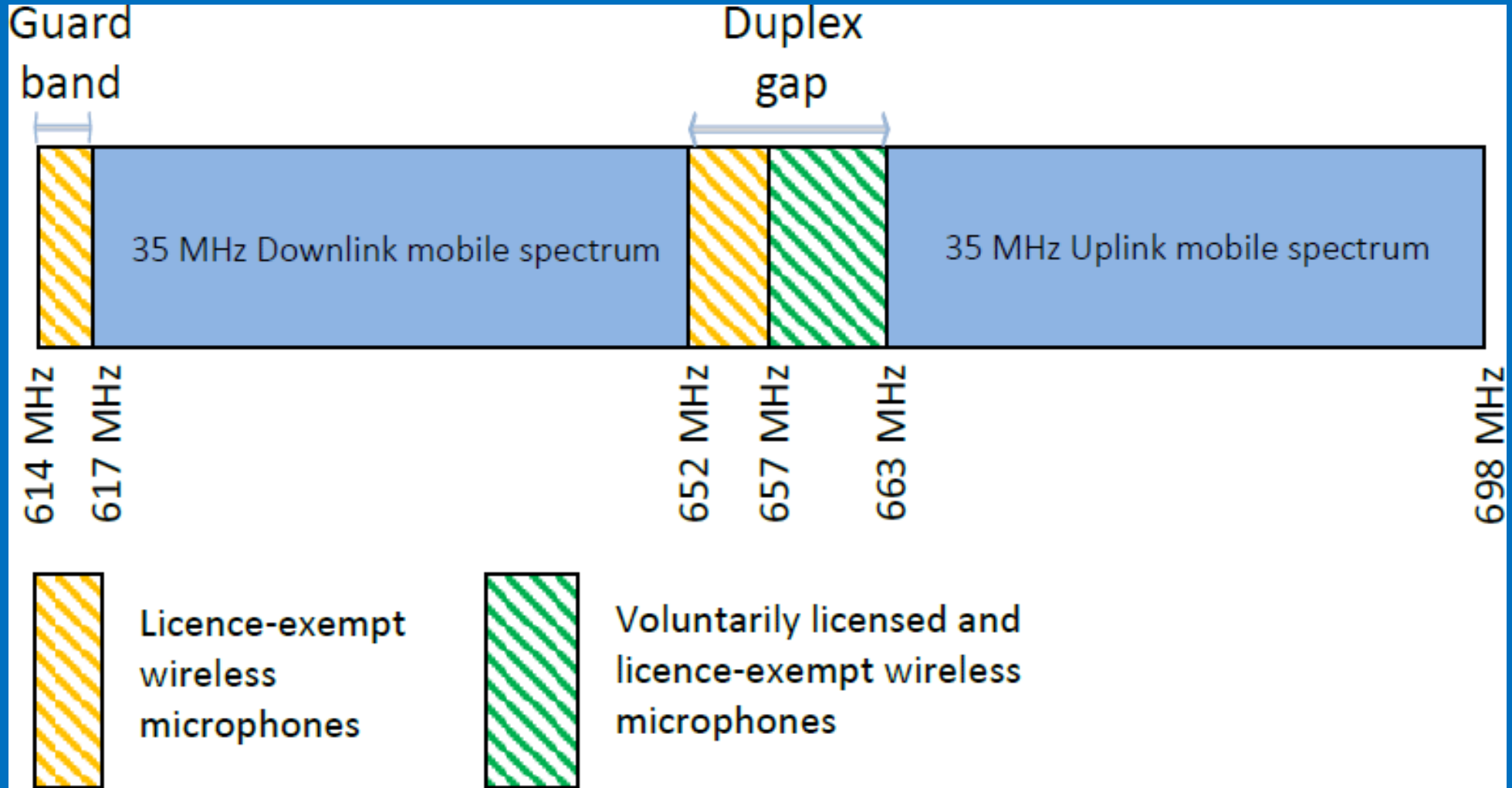
Table 1 — Frequency bands, transmit power/e.r.p., authorized bandwidths and frequency stability limits

Frequency band (MHz)	Transmit power (W)	e.r.p. (W)	Authorized bandwidth (kHz)	Frequency stability (\pm ppm)
26.10-26.48	--	1	200	50
88-107.5	--	1	200	50
150-174	0.05	--	54	50
450-451	--	1	200	50
455-456	--	1	200	50
941.5-952	1	--	200	20
953-959.85	1	--	200	20
6930-6955	1	--	600	10
7100-7125	1	--	600	10



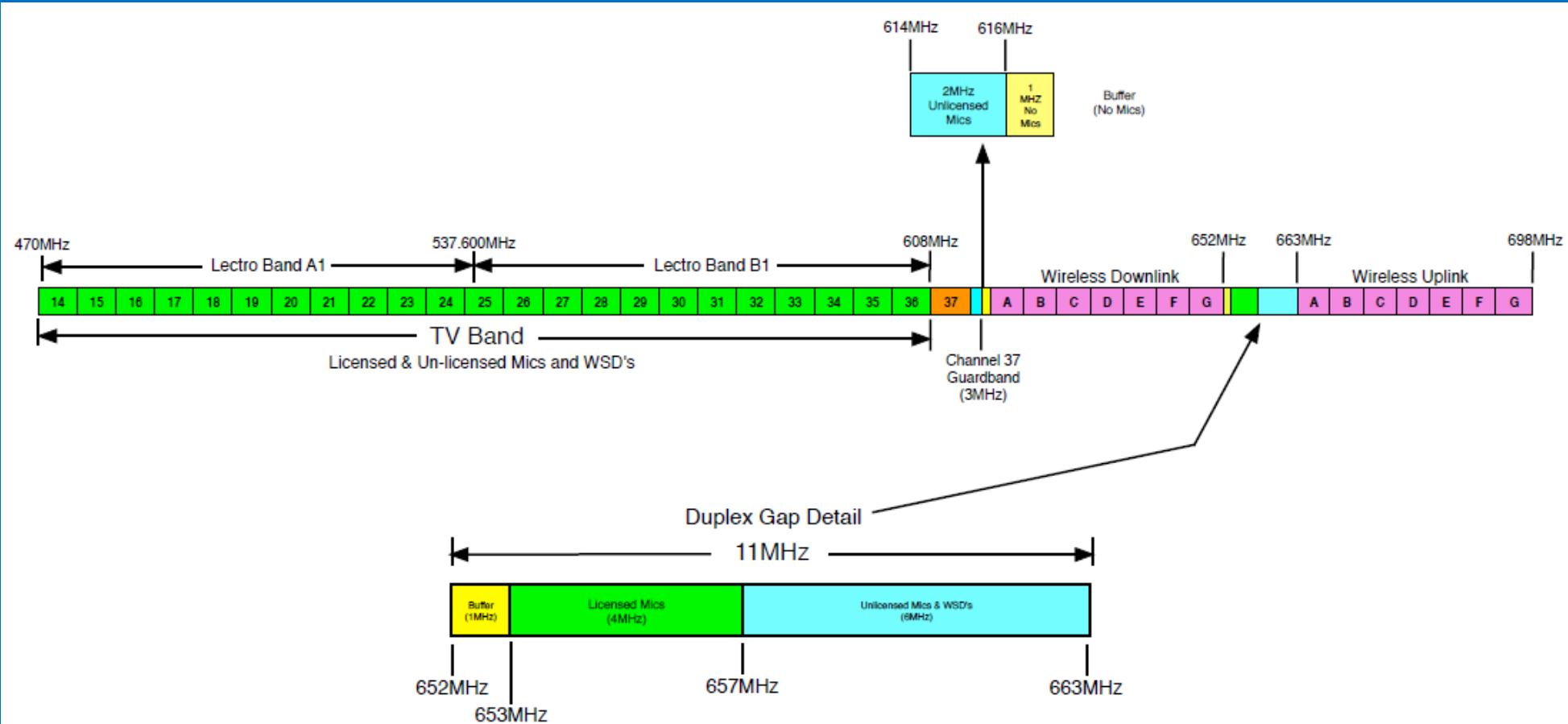


** Canadian certification pending/in process*



FCC (USA)

Band Plan



Remaining Usable UHF Spectrum

The “Money Channels”

(470.000 – 608.000)

WIDEBAND

- High audio quality including range
- Real Time (minimum Latency)
- Good Propagation
- Channel Count
- High RF Reliability



Digital 24bit/48kHz/8psk
IFB/IEM Duet

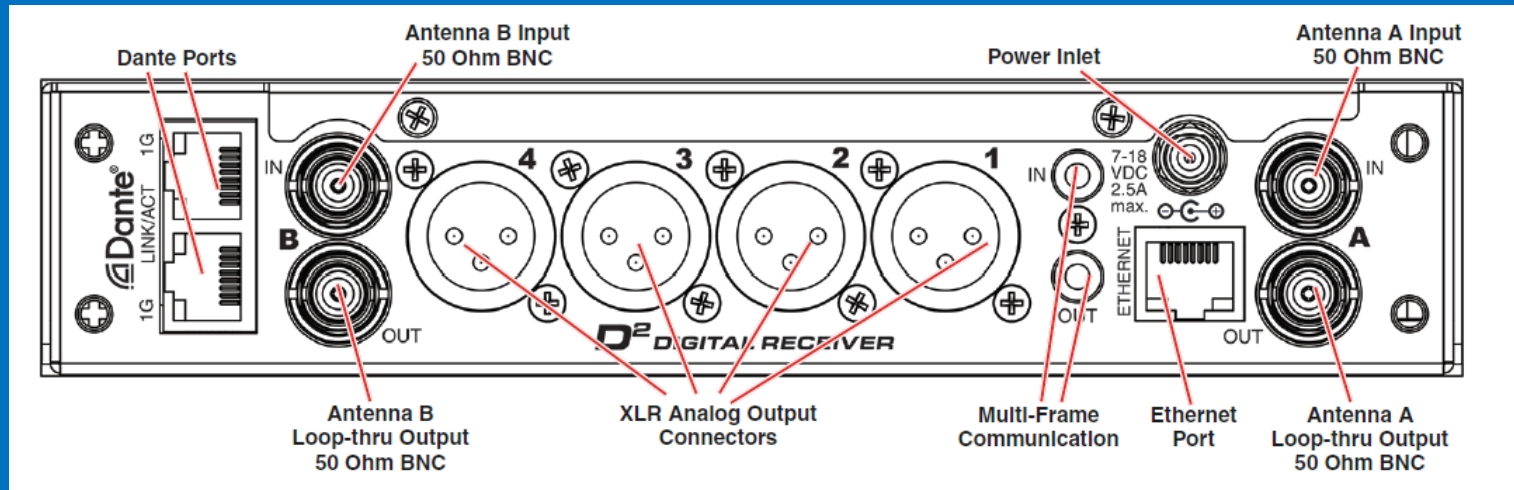


Digital 24bit/48kHz/8psk
DSQD 4 Channel RX with Dante™
(8 channels in a single rack)

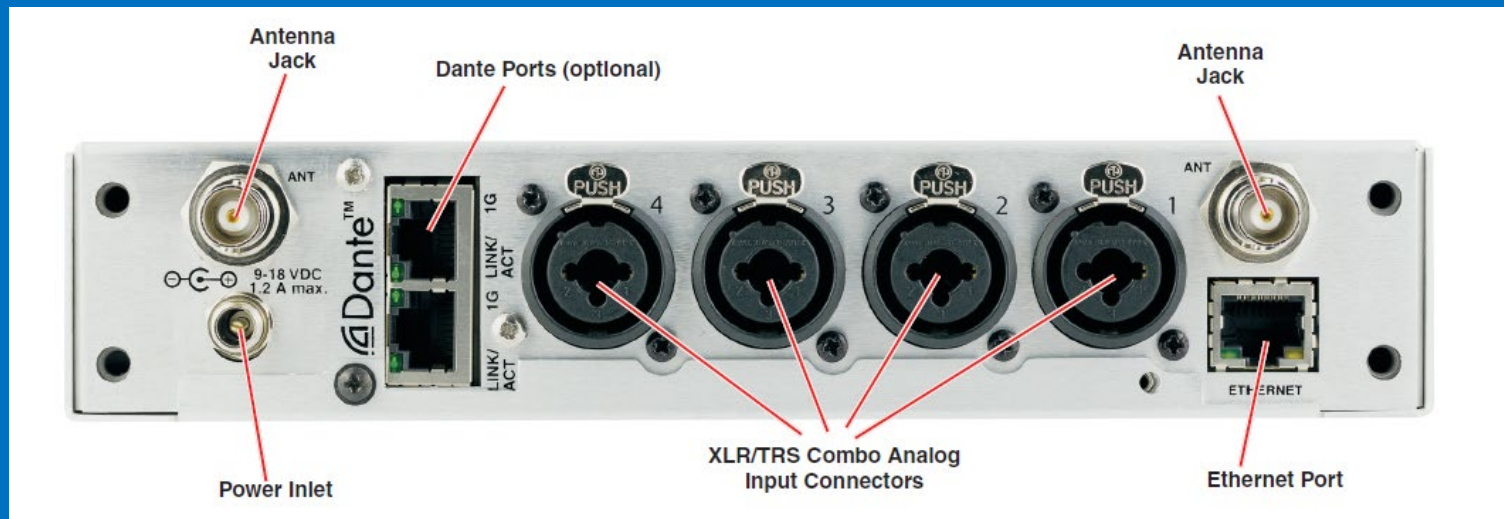


Don't forget our
UHF and VHF IFB series!

DSQD Rear Panel

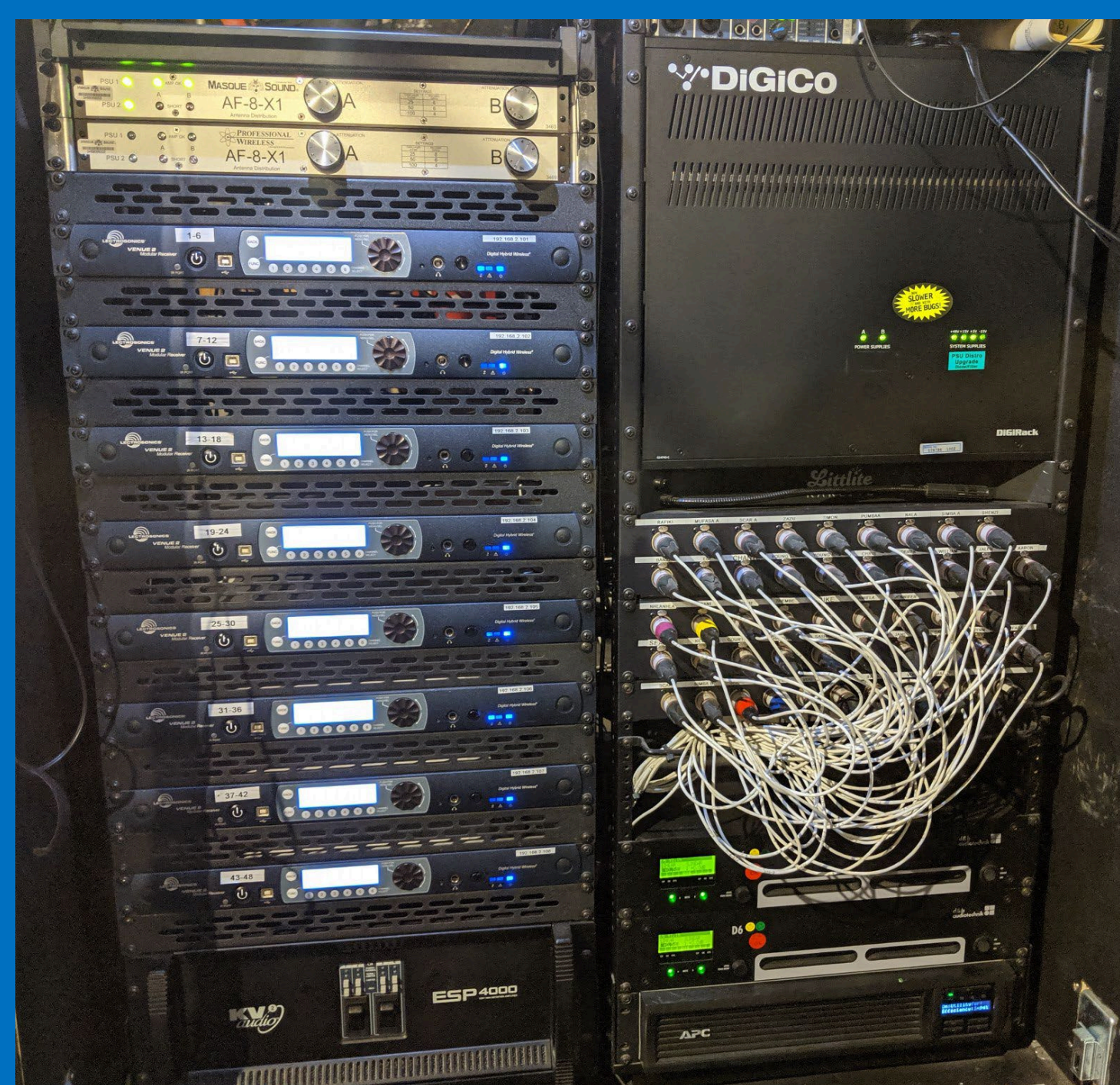
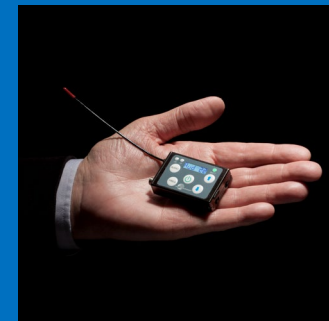


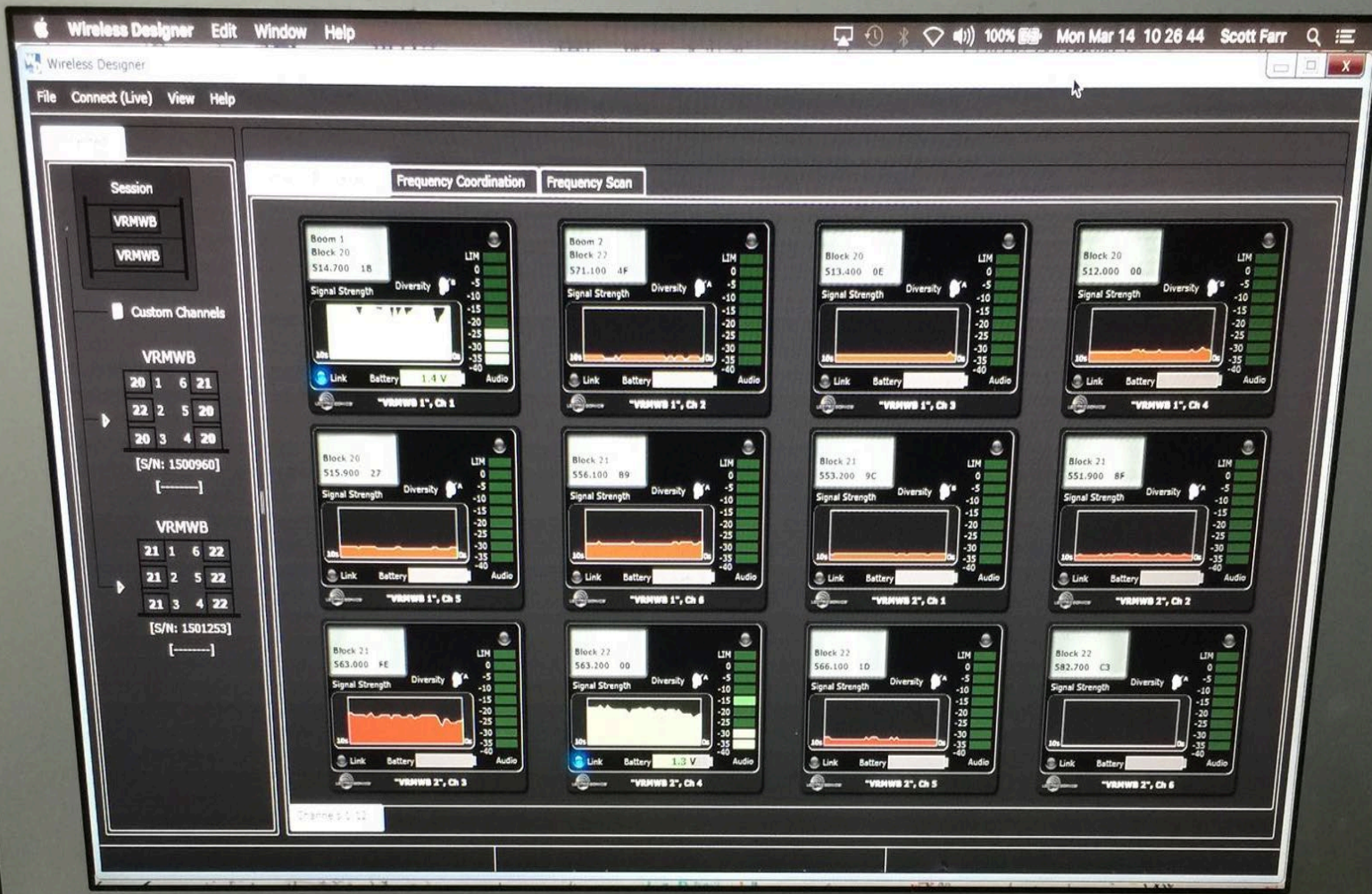
M2T Rear Panel



Currently
on Broadway/
USA national tour

48 channel Venue 2
(6 channel racks x 8)
plus 48 SSM mini transmitters, this
was
frequency coordinated using Band
Planning for post-spectrum
600 MHz repack





Now available in native Mac/PC

MacBook Air



Lectrosonics Wireless Designer enhances setup and operation of Lectrosonics' studio and rack receiver systems including Venue 2, digital DSQD and Duet/IFB/IEM.

The Wireless Designer software includes a spectrum scanner and coordination package for ultra-fast and confident setup. The receiver can be tuned across the whole remaining UHF spectrum and presented in a graphic display. The data from the scan, along with any custom frequency data (including imported lists), can then be incorporated into the frequency calculations for an accurate, real-world channel coordination. The powerful spectrum scanning and walk test recorder features make quick set-up and site surveys easy.



HTML files from IAS software (from Professional Wireless Systems), as well as from other third-party programs, can be directly imported into Wireless Designer.



720 Spadina Avenue, Suite 600
Toronto, ON , M5S 2T9

colin.bernard@lectrosonics.com
416-768-2220