July 29, 2015

VIA ELECTRONIC FILING
Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: EX PARTE NOTICE:
   Expanding the Economic and Innovation Opportunities of Spectrum Through
   Incentive Auctions, GN Docket No. 12-268; Policies Regarding Mobile Spectrum
   Holdings: Comment Sought on Competitive Bidding procedures for Broadcast
   Incentive Auction 1000, Including Auctions 1001 and 1002, AU Docket No. 14-252;
   14-166; Amendment of Part 15 of the Commission’s Rules for Unlicensed
   Operations in the Television Bands, ET Docket No. 14-165

Dear Ms. Dortch:

On July 27, 2015, Mark Brunner, Senior Director, Global Brand Management with Shure
Incorporated (“Shure”) and Catherine Wang of Morgan, Lewis & Bockius LLP, met by
telephone with Erin McGrath, Legal Advisor to Commissioner O’Reilly, Jessica Almond, Legal
Advisor to Chairman Wheeler, Valery Galasso, Legal Advisor to Commissioner Rosenworcel,
David Strickland, Legal Advisor to Commissioner Clyburn, and, on July 28, 2015, with Brendan
Carr, Legal Advisor to Commissioner Pai and the staff listed in Attachment A from the
Commission’s Wireless Telecommunications Bureau and Office of Engineering Technology in
connection with the above-captioned proceedings. We reiterated the views expressed in prior
Shure filings on the numerous technical and policy issues raised in these dockets. Given the
ongoing evolution of the Commission’s approach to the issues and industry response, we
discussed the need to give current attention to the following matters:

   1. After decades of successfully sharing TV broadcast channels, wireless
      microphones and productions in all of the sectors that rely on them -- broadcast, sports,
entertainment, government, corporate, religious, education -- are losing access to significant portions of the UHF spectrum band to make way for the Incentive Auction (after moving to allow for the 700 MHz transition and adjusting to sharing with white space devices).

In light of the desperate need for spectrum to support existing and expanding wireless microphones uses, we discussed the following points:

- To avoid what effectively could be a costly and disastrous flashcut in certain markets, the Commission should not assign TV stations in the duplex gap where certain wireless microphones, especially those used to cover breaking news, are expected to operate.

- In the event that TV stations are assigned to operate in the duplex gap, wireless microphones should have access to any other UHF spectrum that may be designated to “replace” the duplex gap spectrum in affected markets.

- In addition to other guard band spectrum that may become available in the Incentive Auction, licensed and unlicensed wireless microphones should be able to use the one or two 3 MHz guard bands surrounding channel 37 that may be established in certain auction scenarios.

2. Many sophisticated, professional users cannot qualify for licensing under the revised Part 74 license eligibility rules and therefore, particularly in light of the Commission’s decision to eliminate the two UHF wireless microphone reserve channels, there is a great need to retain a procedure that would allow unlicensed wireless microphone users to obtain temporary authority to enable interference protection in the database 30 days in advance of an event requiring protected spectrum.

3. Wireless microphone manufacturers are interested in all spectrum bands identified in the Commission’s Notice of Proposed Rulemaking in Gen Docket 14-166 as potential supplemental spectrum to support wireless microphone operations. With respect to specific bands:

- Shure opposes CTIA’s effort to stake a claim to spectrum in the 1435-1525 MHz band and request that the Commission limit any future wireless microphone operations that may be authorized in this spectrum to a small portion of that band on the misguided theory that the Incentive Auction will cause wireless microphones to lose access to only
12 MHz of UHF spectrum.\(^1\) In fact, wireless microphones have access under current rules on a secondary basis to the entirety of the UHF band, and the Incentive Auction and TV broadcast repacking stand to eliminate wireless microphone access to 120 MHz or more. In stark contrast to high power, high density mobile operations, professional wireless microphones have the potential to successfully share the 1435-1525 MHz band with sensitive aeronautical telemetry operations. Wireless microphones are therefore the most appropriate sharing partner for incumbent users in the 1435-1525 MHz band and should have access, on a secondary shared basis under appropriate terms and conditions, to the entire band.

- The Commission should consider designating the 2020-2025 MHz band for wireless microphone operations. That spectrum will be important nationwide spectrum, in particular for breaking news coverage, in the absence of the two wireless microphone reserve channels and nationwide spectrum in the duplex gap (if the Commission decides to assign TV stations in this spectrum).

4. The Commission should refrain from adopting onerous equipment and transition rules.

- The rules need not and should not require wireless microphones to be controlled by the geolocation database. Such a requirement is unnecessary -- wireless microphone users routinely rely on a broad range of spectrum interference avoidance tools to ensure clear, interference-free operation and to prevent interference to other spectrum users. Such a requirement would also be excessively burdensome -- the architecture of wireless microphone equipment does not allow for automatic interaction with a database at the product level and such a radical new requirement would strand all existing equipment and compel significant and costly equipment redesign.

- The Commission should reject CTIA’s recent effort to impose new, unprecedented requirements on wireless microphones to implement a “Stop Buzzer” rule that would require each wireless microphone to provide a contact available 24/7 to resolve interference and cease transmission.\(^2\) This suggestion would impose unreasonable burdens, is wholly unsupported by any evidence that such a requirement is needed, contrary to the regulatory treatment of unlicensed devices, and procedurally fatally flawed under the Administrative Procedure Act and the Commission’s notice and comment rulemaking procedures as a last minute request for a new rule.

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The Commission should avoid equipment transition rules that would impose harsh, unnecessary costs on wireless microphone users many of whom were just recently subject to significant, unanticipated costs when the Commission announced that wireless microphone equipment would no longer be permitted to operate in 700 MHz frequencies, thus forcing the retirement of working equipment long before the end of its useful life.

Commission rules should permit equipment to be updated in the field to new frequency schemes where necessary following the Incentive Auction and TV broadcast repacking.

Commission rules should not force wireless microphone users to cease operation in the auctioned bands until commercial service actually commences. Reasonable spectrum management policies require Commission rules ensure that carriers seeking to dislocate incumbent users do so only as transition becomes necessary to make way for actual operations. To do otherwise would enable significant waste of spectrum resources and unnecessary hardship on incumbent users.

Very truly yours,

/s/

Catherine Wang

Counsel for Shure Incorporated

cc:

Erin McGrath
Jessica Almond
Valery Galasso
David Strickland
Brendan Carr
Julius Knapp
Ira Keltz
Paul Murray
Hugh Van Tuyl
Alan Stillwell
Chad Breckinridge
Attachment A - July 28 Teleconference Attendees

Office of Engineering and Technology
Julius Knapp
Ira Keltz
Paul Murray
Hugh Van Tuyl
Alan Stillwell

Wireless Telecommunications Bureau
Chad Breckinridge

Shure Incorporated
Mark Brunner

Morgan, Lewis & Bockius LLP (Counsel for Shure Incorporated)
Catherine Wang
Tim Bransford