REVISIONS				
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			RF VENUE 24 Walpole Park S., Unit 1 Walpole, MA 02081 1-800-795-0817
Drawn By:	M. Cummings	06/21/24	
Approvals:	M. Cummings, Engineering	06/21/24	**Tune Up Procedure** **Combine 6** ***6-Channel In-Ear Monitor TX Combiner***
			Size: **A** / Dwg. No.: **3073-6601**
			Sheet 1 of 2

1. FCC ID

This Tune Up Procedure applies to FCC ID 2BDOJ-COMBINE6

2. Purpose

This document is a procedure for verifying proper operation of the RF Venue Combine6 In-Ear Monitor Transmitter Combiner. It is intended to satisfy the requirements for a Tune Up Procedure for licensed devices under Part 74 per 47 CFR Part §2.1033(c)(12).

There are no tuning adjustments or other calibration steps required during manufacturing or use for the device. All RF circuits are implemented with fixed values.

During manufacturing, each device is tested to ensure proper operation and that the output power is within specified limits as documented in the referenced emissions test report.

3. Reference Documents

Combine 6 User Guide

Emissions Test Report 105431768BOX-001

4. Test Equipment Requirements

The following equipment is required to perform this procedure. All equipment used must be calibrated per the manufacturer's specifications. Equivalent equipment may be substituted with approval of the quality control manager.

Keysight FieldFox RF Analyzer N9912A. An equivalent signal generator, spectrum analyzer or other RF measuring device may be used provided it is approved by the quality manager and supports the following:

- Frequency range to cover from 400 MHz to 700 MHz minimum
- Output power of +1 dBm at 539 MHz

Two RG-58 50-ohm BNC cables, 3' long. Cables should have a known loss and be periodically calibrated.

5. Procedure

- Set the RF Analyzer to generate a nominal +1 dBm continuous wave tone at 539 MHz. This is the TEST INPUT signal.
- Connect the generator port of the analyzer to the measurement port with one of the 3' RG-58 cables (INPUT CABLE) and record the measured power *Pin*. Confirm *Pin* is greater than +0 dBm.
- Power on the DUT. Disconnect the INPUT CABLE from the analyzer's measurement port and connect it to ACTIVE INPUT channel 1 of the DUT. The other input ports are left disconnected.
- Connect the ACTIVE OUTPUT port of the DUT to the analyzer's measurement port using a second 3' RG-58 cable with known loss *Loc (dB)*.
- Record the measured output power *Pout* in dBm. Repeat for each channel.
- Calculate the DUT gain per channel as follows: *Gdut (dB) = Pout (dBm) – Pin (dBm) + Loc (dB)*

6. Test Limits

The DUT gain shall be between -3 and +1 dB for each channel.

Out-of-specification units shall be dispositioned as non-conforming material per RF Venue standard procedure.