

TOWER	$X_{LC} (\Omega)$	$X_S (\Omega)$	$X_{IC} (\Omega)$	$X_C (\Omega)$	$Z_{BASE \text{ MODELED}} (\Omega)$	$Z_{MP \text{ MODELED}} (\Omega)$	$Z_{MP \text{ MEASURED}} (\Omega)$
#1	+j2600	+j26	+j25325	-j3000	64.7 + j84.3	62.5 + j108.1	62.9 + j108.1
#2	+j2600	+j20	-----	-j4000	56.9 + j67.5	55.0 + j86.1	55.0 + j86.4
#3	+j2600	+j28	-----	-j6500	55.8 + j63.8	53.1 + j89.9	53.4 + j90.2

Dwayne Straume, H&D

10/3/2016

KPUG MOM TABLE.dwg

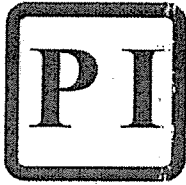
HATFIELD & DAWSON
CONSULTING ENGINEERS

ANALYSIS OF TOWER IMPEDANCE MEASUREMENTS TO VERIFY
METHOD OF MOMENTS MODEL

RADIO STATION KPUG 1170 kHz

BELLINGHAM, WA

10/2016



Potomac Instruments, inc.

7309 Grove Rd Unit D Frederick, MD 21704 Phone 301-696-5550 Fax 301-696-5553

Certificate of Calibration

For

Medium Wave Directional Antenna Monitor

Model: 1901-3

Serial Number: 929

Performed for: Cascade Radio Group

Address: 2219 Yew Street Road
Bellingham, WA 98229

Calibration Frequency: 1170 kHz

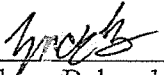
Termination Impedance: 50 Ω

Temperature: 72°F

Relative Humidity: 42%

Equipment Modifications from Standard: None

This document certifies that the above instrument has been tested and calibrated in accordance with factory calibration procedures under the conditions noted using standards that are traceable to the National Institute of Standards and Technology (NIST).

Approved By: 
Zachary Babendreier

Calibration Date: 02/25/2016

Next Recommended Calibration: February 2019