

TEST REPORT

PINEAPPLE TECHNOLOGY, INC. DTXPRO-2.3KU DIGITAL TV TRANSMITTER TECHNICAL REPORT

The following information is provided to support the technical performance of the Pineapple Technology, Inc. DTXPRO-2.3KU transmitter. The information is supplied for broadcast TV service according to applicable portions of FCC Rule Parts 73 and 74.

The information in this report is provided in support of verification that the transmitter meets the appropriate requirements. Measurements were recorded of spectrum and other appropriate data to demonstrate compliance.

1. Power Output Measurements
2. Frequency stability tests versus AC input voltage and temperature
3. Harmonic and spurious measurements to demonstrate the transmitter meets the DTV stringent emission mask and FCC Rule 74.794.
4. Measurement of cabinet radiation for spurs and harmonics as specified in FCC Rule 2.1053 and Rule 2.1057.

Measurements for these parameters were conducted at power output levels of both 2,300 watts and 1,600 watts. Measurements were taken at the center frequency of 539 MHz (TV channel 25) however this transmitter is capable of operation between 470 MHz (TV channel 14) and 608 MHz (TV channel 36) and between 614 MHz (TV channel 38) and 806 MHz (TV channel 69) with the same integral-components/circuitry.

The test equipment used for the measurements on these following pages is listed at the end of the test report section.

Power Output Measurements

The equipment was configured as below shown in Figure 1. The loss through the directional coupler was calibrated at the channel center frequency of 539 MHz. Average power was read on the Agilent E4418B Power Meter.

Setup for Output Power and Spurs and Harmonics Measurements

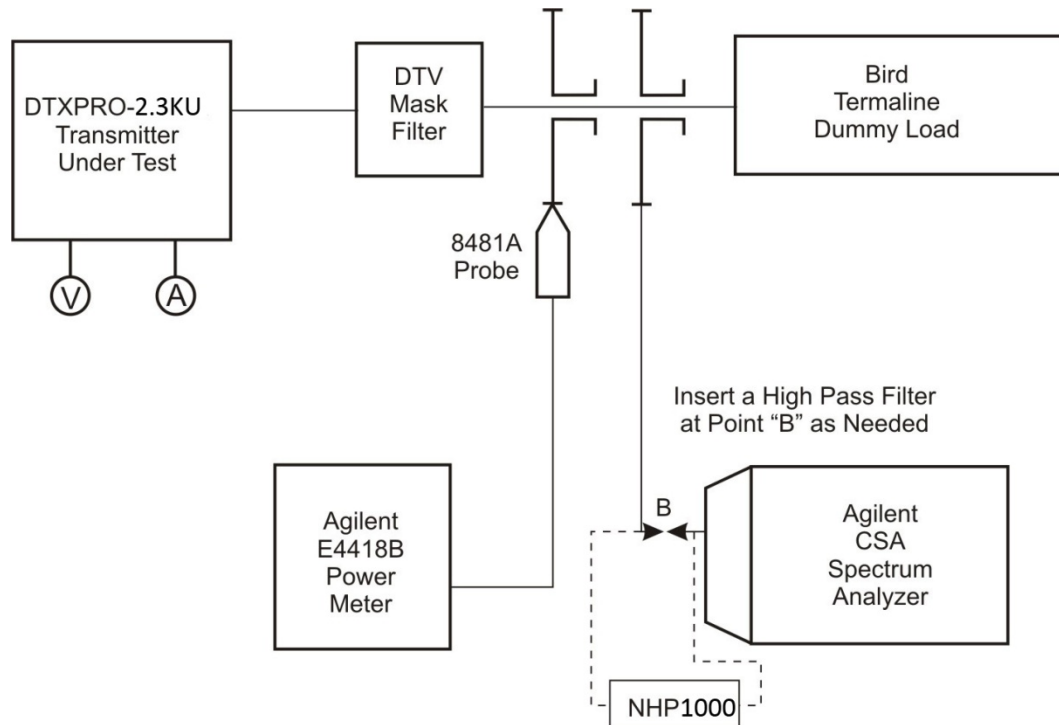


FIGURE 1

The loss of the directional coupler was calibrated to be 57 dB.

Measurement Of Nominal Transmitter Power

The transmitter was energized in the test configuration above and the power was read on the Agilent E4418B Power Meter. The indicated reading is shown below.



Calculation of Output Power: An offset of 57dB, equal to the directional coupler loss, entered into the E4418B allows direct display of output power in watts average power. Measured transmitter final voltage is 50VDC and final current is 180 amps.

Low Power Operation

The transmitter was energized in the test configuration above and the power was read on the Agilent E4418B power meter. The indicated reading is shown next.



Calculation of Output Power: An offset of 57dB, equal to the directional coupler loss, entered into the E4418B allows direct display of output power in watts average power. Measured transmitter final voltage is 50VDC and final current is 160 amps.