

EE 483/583 Antennas for Wireless Communications (Spring 2024)

Homework 3

Tuesday, January 30, 2024

- 1) 2.72
- 2) 2.83 Change operating frequency to 1800 MHz and distance to 800 m.
- 3) 2.95
- 4) 2.100
- 5) 2.110 Change transmitted power to 120 W and distance to 120 m. **Assume antenna matched to feeding transmission line.**
- 6) 2.111 Modified so the transmission line temperature is 88°F and attenuation is 3 dB/100 ft. The effective antenna temperature incorporates both the antenna noise temperature as well as that due to the antenna physical temperature at the terminals.
- 7) **EE 583 only:** 2.85

Due Tuesday, February 6, 2024