

SYSTEM SUMMARY

CALL LETTERS: **WMTV-DT**

CHANNEL: **19**

LOCATION: **Madison, Wisconsin**

COORDINATES: **43-03-03 N / 89-29-13 W (NAD83)**

ANTENNA STRUCTURE REGISTRATION NUMBER: **1241784**

ANTENNA TYPE: **Dielectric TUA-O4-10/40H-1-S-R (Horizontal polarization)**

ANTENNA

ERP: **55.98 kW (+17.48 dBk)**

RMS GAIN: **19.8 (12.97 dBd)** (referenced to half wave dipole)

INPUT POWER: **2.82 kW (+4.51 dBk)**

ELEVATION: **1,181 ft RCAGL**

TRANSMISSION LINE

Type: **Dielectric DigiTLine**

Size: **6 1/8 in**

Impedance: **75 ohm**

Length: **1,250 ft (381.0 m)**

Attenuation: **1.36 dB (Efficiency: 73.2%)**

COMBINER

Type: **DCA**

Attenuation: **0.25 dB (Efficiency: 94.4%)**

COMBINER INPUT

4.09 kW (+6.12 dBk)

TRANSMISSION LINE EXTENSION

Type: **Andrew HJ7-50A**

Size: **1 5/8" Heliax**

Impedance: **50 ohm**

Length: **100 ft**

Attenuation: **0.52 dB**

CHANNEL FILTER (FCC Mask Compliant)

Type: **Thales custom**

Filter loss: **0.35 dB**

INPUT TO CHANNEL FILTER

5.00 kW (+6.99 dBk)