

DIGITAL COMPANION APPLICATION
LAWRENCE F. LOESCH
W51DF LPTV STATION
CH 22 - 518-524 MHZ - 0.275 kW
MANTEO, NORTH CAROLINA
June 2012

EXHIBIT C

Digital Transmission System Calculations

Effective Radiated Power: Horizontal	0.275 kilowatt
Antenna:	RF Technologies Corporation Model - LP-1900-12-WB-17-28
Horizontal gain (maximum):	Power gain 20.4
Transmission Line: (235 feet)	Andrew Corporation - LDF5-50A 7/8 foam dielectric foam 61.3% efficiency
Antenna filter :	Insertion loss 0.22 dB 95.060% efficiency ¹
Required Transmitter Power Output To Reach Effective Radiated Power:	0.0231 kilowatt (23.1 watts)

1) The actual loss will be determined at installation and may result in a slight change of transmitter power output to maintain effective radiated power.