

# SYSTEM POWER ANALYSIS

3/7/2017

*WPBE-LP*  
*98.3 Mhz*  
*West Palm Beach, FL*

<b>TRANSMISSION SYSTEM:</b>		STATION ERP:	kW	0.045
<b>Vertical Run:</b>			dBk	-13.47
Type	Andrew LDF-4-50 1/2" Foam Line			
Length	130 feet			
Attenuation:	0.6545 dB/100 feet	<b>ANTENNA DETAIL:</b>		
Loss this section:	0.851 dB		Bays:	1
<b>Horizontal Run:</b>			Spacing:	N/A
Type	Andrew LDF-4-50 1/2" Foam Line			
Length	45 feet			
Attenuation:	0.6545 dB/100 feet	<b>ANTENNA POWER GAIN:</b>		
Loss this section:	0.295dB		Numeric:	0.47
			dBd	-0.3
<b>TOTAL TRANSMISSION SYSTEM:</b>				
Total attenuation	1.15 dB	<b>ANTENNA INPUT POWER:</b>		
Coax Efficiency:	76.82%		kW:	0.096
Coax Power Rating:	3.43 kW		dBk:	-10.189
Coax Safety Factor:	14.40dB			
<b>OTHER LOSSES AND DERATING INFO:</b>		<b>Total System Losses:</b>		
Connector Loss:	.1dB		dBk:	1.245
Antena Height AMSL:	130 Ft.			
Derated for 1:3:1 VSWR:	2.64 kW	<b>TRANSMITTER POWER OUTPUT:</b>		
Derated for Elevation:	2.64 kW		kW:	<b>0.128</b>
Derated for Temperature:	2.64 kW		dBk:	<u>-8.943</u>
Safety Amount (Derate TPO)	2.51 kW			