

Table 1

Antenna / Line System Gains and Losses

prepared for

Board of Trustees California State University for San Diego State University

KPBS-FM San Diego, CA

Construction Permit File Number: BPED-20070327ADY

Authorized Effective Radiated Power: 26.0 kW

Antenna System

Dielectric DCR-QBR8-HP-SS.85	Power Gain:	3.20
8 elements, 0.786 wavelength spacing		

Antenna Input Power: 8.13 kW

Line and Other Losses

Transmission Line to Antenna	Efficiency:	97.7%
EIA Rigid 4-1/16" dual (160 ft length)		

Transmission Line to Combiner	Efficiency:	94.6%
Heliac 2-1/4" (150 ft length)		

Other Losses		
Combiner (0.29 dB loss)	Efficiency:	93.6%

Transmitter Power Output: 9.39 kW

TPO Rounded per §73.212 9.4 kW