

EXHIBIT 12 – TRANSMITTER POWER OUTPUT

The transmitter power output for the station is **245 watts**. This has been calculated based on the following:

1. The authorized maximum directional effective radiated power is 250 watts.
2. The transmission line is 72 meters of Andrew LDF5-50A coaxial cable. This type of cable has 1.242 dB loss per 100m¹, or 0.894 dB for the length in use. This equates to an efficiency of 81.4%.
3. The gain of the authorized Scala CA2-CP directional antenna is 1.0 dB². This equates to an antenna gain of 1.26.
4. The transmitter power output is this calculated as follows:

Authorized effective radiated power:	250 watts
Transmission line efficiency:	÷ 81.4 %
Antenna gain:	÷ 1.26
Transmitter power output:	<u>244</u> watts

5. Rounding to the nearest 5 watt increment per 47 CFR §73.212(a), the transmitter output power is thus 245 watts.

W299BH utilizes a Crown Broadcast model FM30R translator with an Armstrong Transmitter Corporation model FM-500LCD amplifier. These units are certificated for operation under Part 73 and Part 74 at this power level.

¹ Manufacturer's specification

² Manufacturer's specification