

PERDOMO TECH
Your FM Allocation Source
400 Reservoir Ave. Suite 3L Providence, RI. 02907.401-338-2642

Friday, 11 February 2022

FCC FILE NUMBER: 0000177185
FACILITY ID 85823

I, Quilvio Perdomo, do hereby state, I am President and Chief Engineer of “**Perdomo Tech**” the engineering department of Perdomo Media Group, hold a BSEE degree from National University: Carlton B., Class of 2021, also currently enrolled in Broadcast Engineering Distance Education Course: FM System at SBE University. My recent studies as broadcast engineer, improvements to FM Translator stations have been filed at the Federal Communications Commission.

The permittee agreed to work in coordination with other users of the site to reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.

3 Special Operating Conditions or Restrictions & TPO

Condition 1.

The permittee already have on file an Application for an FM Translator Station License to cover, pursuant to 47 C.F.R. Section 74.14.

Condition 2.

BLFT-20110726AJJ (W249BY 97.7 MHz). File Number: **0000179028** (W237CD 95.3 MHz)

In accordance with this special condition an analysis was made on February 11, 2022 at 12:22 pm to 13:30pm eastern daylight time using a Tektronix 2710 Spectrum Analyzer all three FM Translator stations at the site (the W237CD above Licensed as well as referenced Construction Permit translator File Number: **0000177185**) were operating at authorized power thru the shared antenna. Also, W249BY was operating at its authorized power. W298DI is using a BW Broadcast model TX300 v3 transmitter which is certificated for operation under Parts 73 and 74 of the Commission’s Rules at the licensed transmitter power output level of 137 watts , There were not spurious emissions or mixing products from the simultaneous operation and measurements through to 12th harmonic show that all are in compliance with 47 CRF 73.317 parts b, c and d.

Condition 3.

As exactly stated on the underlying FCC Construction Permit, FILE NUMBER: 0000177185, the W298DI FM antenna is side mounted on the WSNJ(AM) tower supporting structure. The tower is grounded, and shunt fed which is a configuration that often results in the installation of an antenna and transmission line having little or no impact on the tower resistance as long as the FM equipment are properly bonded to the tower which has been done in this installation.

The Engineer for WSNJ(AM) Bridgeton, NJ FAC ID 12212, Al Miller on February 11, 2022 at 13:00pm Re-measured the impedance of the tower and the resistance value is as specified in the last license, BZ20140407ACR, which is 50 ohms.

The measurement was made using a Delta OIB-1, serial number 1107, inserted at the same point as the original license measurements were made with the transmitter energized at the licensed power of 1,000 watts as pictured.

I declare, under penalty of perjury, that this information is true and correct to the best of my knowledge.


Quilvio Perdomo (Frankie)
Consultant Engineer



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TOP = 0.137 Kw

W298DI

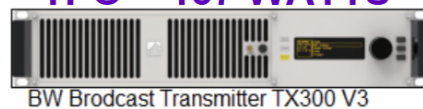
Transmitter Power Output

Antenna has a power gain of 2.35(3.71dB)
508.5 ft. Andrew 7/8 foan cable ANDAVA5-50
has a loss of 1.071
Transmission line system has a total loss of 1.171
6 feet of LMR-400 Cable loss of .1db
Power EFFICIENCY 78.101

Gain 2.35
Line Eff. .78
ERP 250W

$2.35 * .78 = 1.83$ $250 / 1.83 = 136.61$ **TOTAL +LOSS TPO**
 $136.61 + 1.17 = 137.78$

TPO = 137 WATTS



BW Broadcast Transmitter TX300 V3

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Calculation Diagram
Perdomo Media Group
February 2022

Slant V FM DA
Antenna for 107.5 mHz
Circular polarization
7/8 EIA input
gain 2.35(3.71dB)

Andrew ANDAVA5-50
Andrew 7/8 FoanCable
508.5 ft.(155m)
P.Efficiency 78.101
Volt Efficiency 88.389
Loss 1.071

Approx 6 feet
LMR-400
Cable Assembly
Loss .1 dB
Per Times Microwave
On-Line Calculator

Coax Cable 145(m) tower + 10(m) thru the Shelter= 155(m)