

W290CU, W232CS, W253BH & W226AT Construction Permit Special Operating Conditions

Positive Alternative Radio is the licensee of FM translators, W290CU, W232CS, W253BH and W226AT, which hold construction permits for improvement of their facilities. We have completed construction of those four translators & are filing for our license to cover.

The translators are combined into a shared antenna. As such, we performed combiner measurements for RF emissions. The four-station combiner was built by Kintronic Labs. The combiner is a FMC3X300W700W2C3C model with serial number 041117. Measurements for the emissions of this combiner & antenna were taken with a Bird RF Signal Sampler and an Anritsu MS2711D spectrum analyzer. The antenna for all the stations is two-bay, half wave spaced Nicom BKG77.

We conducted measurements using a spectrum analyzer on W290CU, W232CS, W253BH and W226AT. We concluded that we are in compliance with the spurious emissions requirements set forth in 73.317(b) through 73.317(d).

With respect to 73.317(b), we measured W226AT at 62dB, W232CS at 62dB, W253BH at 76dB & W290CU at 70dB removed from their main carrier. The minimum requirement set forth to be in compliance is 25 dB.

With respect to 73.317(c), we measured W226AT at 66dB, W232CS at 69dB, W253BH at 78dB & W290CU at 76dB removed from their main carrier. The minimum requirement set forth to be in compliance is 35 dB.

With respect to 73.317(d), we measured in two tests. In the first, we measured the signals at 600kHz removed from the main carrier & measured W226AT at 68dB, W232CS at 76dB, W253BH at 79dB & W290CU at 79dB removed from their main carrier. We calculated the minimum requirement for those to be 67dB. Secondly, we also looked at mixing harmonics and found no other emissions that were more than 67dB below the carriers.

These measurements conclude that Positive Alternative Radio and stations W226AT, W232CS, W253BH and W290CU have satisfied the special operating condition set forth in their construction permit.

Sincerely,

David Hodges

David Hodges
Director of Engineering,
Positive Alternative Radio

April 21, 2020