Worldwide Installations

Society of Broadcast Engineers Certified Member
National Association of Radio and Telecommunications Engineers No. E1-00619

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ENGINEERING STATEMENT

The multi-user, combined antenna system for use with KKUA is designed to accommodate 3 FM frequencies (89.9, 90.7, 92.5). Currently only 92.5 and 90.7 will be in operation.

At 90.7 Mhz. the antenna spacing is 0.9 wavelength. The power gain of the antenna at this frequency is 3.30. The transmitter is connected to the combiner with 20' OF 3 1/8" Myat hardline with a loss of .1db. The combiner has an insertion loss of 0.2402 db. The combiner is connected to the antenna with 106' of 5' HCA500-50 heliax with an efficiency of 98.16%.

The total efficiency of the antenna and combiner system at 90.7 mhz. is 89.9%. To achieve an effective radiated power of 56,000 watts, the transmitter power output is 19,000 watts.

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