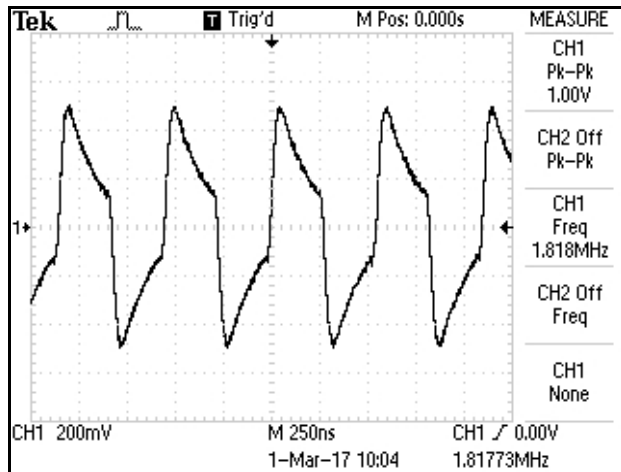


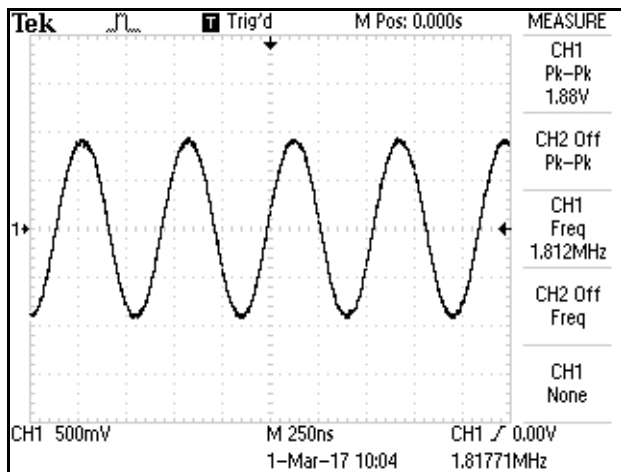
JUMA TRX-2 TRANSMITTER WAVEFORMS

The transceiver was connected to a dummy load, the mode set to TUNE, and the 3dB transmit attenuator selected. The signal levels up to the output of the main board – C42 – represent the nominal signal levels for approximately 10W of RF output. The signal levels from C36 represent the levels for approximately 5W of output. The frequency was set to 1.8MHz.



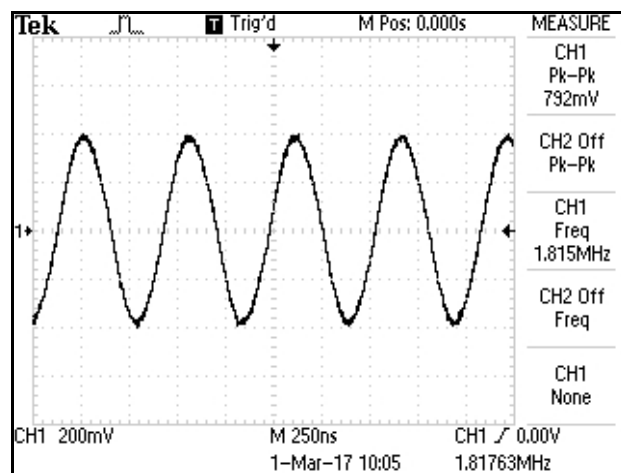
Signal level at C15 on the filter board, input from the transmit mixer from the main board.

Note sampled waveform, containing numerous harmonics.

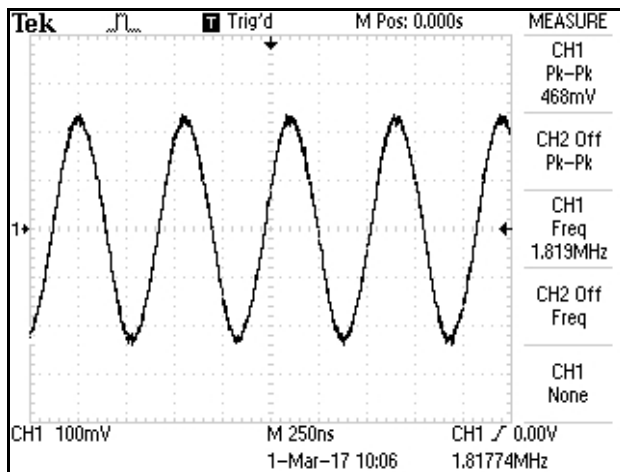


Signal level at junction of L10 and C17 of the 1MHz – 2MHz band-pass filter.

Note the action of the filter in reducing the harmonic levels.

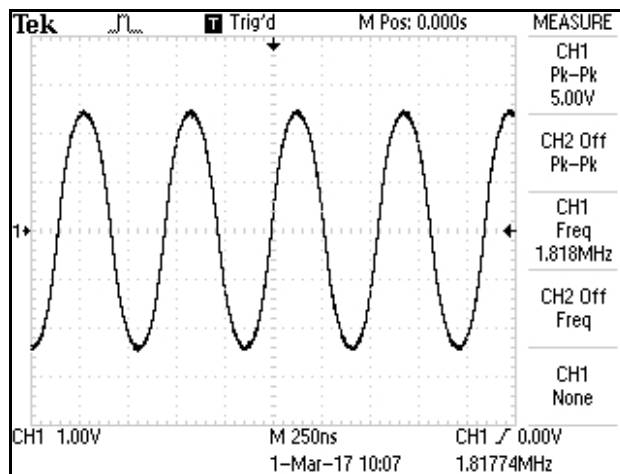


Signal level at C42, output of filter board.

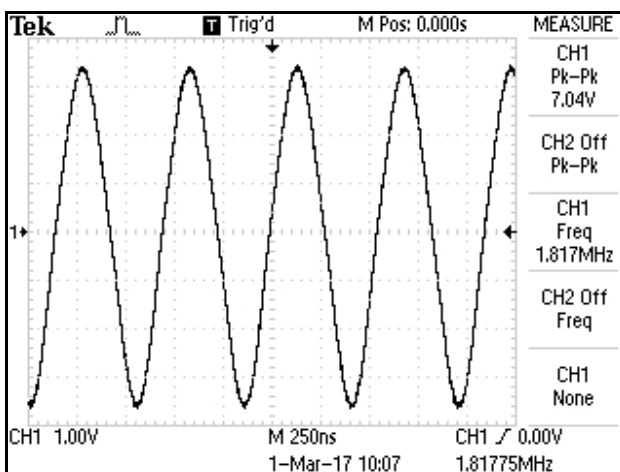


Signal level at C36, PA Board, input to the pre-amplifier after the attenuator.

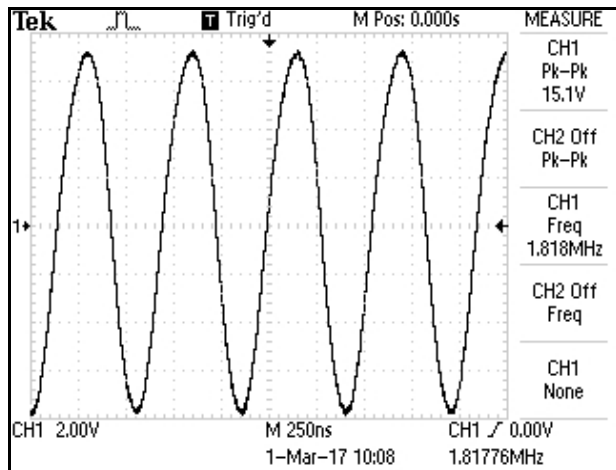
In this case, the -3dB attenuator was selected.



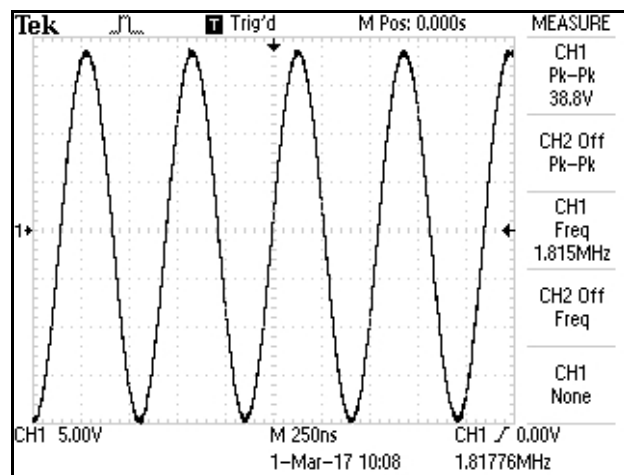
Signal level at the drain of TR1. This is without the addition of C2/R5 in the source circuit. With this modification in place, the signal level will be approximately twice that shown here.



Signal level at the drain of TR2, the driver stage.



Signal level at the drain of TR4, the PA output transistors.



Signal level at the antenna socket, equivalent to 3.76W into 50 Ω .

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1 March 2017