

QEX

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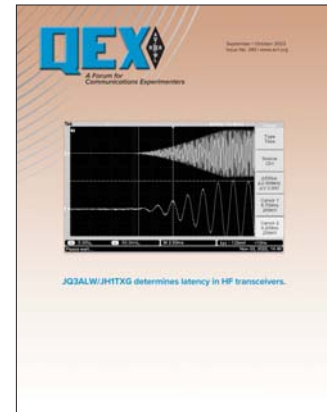


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September/October 2023

About the Cover

Tatsuya Hirahara, JQ3ALW/JH1TXG, measured the latency of HF transceivers using a direct-conversion receiver (DCRX). Although modern digital oscilloscopes are equipped with a data transfer function and can handle acquired data on a PC, the data transfer is laborious and the data length is too short for high temporal resolution required to capture RF signals. Thus a DCRX was built and used to capture the RF signal output from a transmitter as an AF signal. The latency of the DCRX is confirmed to be short enough. Next, the latency of the HF transceivers in SSB mode is determined by measuring the impulse response of the transmitter-receiver systems. The latency in CW mode is then determined by measuring the onset time of the AF signal envelope.



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