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### September/October 2019

## **About the Cover**

Tuck Choy, MØTCC, considers inductor losses in Pi networks in this second and final part of his series. He discusses the T-matrix formulation, as well as its use to develop the response functions for the Pi network, and presents an analysis of the exact and approximate results for bandwidth and harmonics suppression predictions. Choy also presents some preliminary experimental measurements using an Arduino-based vector network analysis system.



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**Pi Networks With or Without Inductor Loss — Part 2** Tuck Choy, MØTCC



Patterns and Polarizations of Modestly-Sized Loop Antennas

Darrel Emerson, AA7FV; G3SYS



Tuning Short Antennas for Portable Operations Kazimierz "Kai" Siwiak, KE4PT and Ulrich L. Rohde, N1UL



More Octave For Complex Characteristic Impedance Maynard A. Wright, W6PAP



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