

Abstract Submitted  
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**The theory of the anti-maser: coherent perfect absorption of RF**  
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State University — The radio frequency (RF)-analogue of the anti-laser is developed  
using four terminal network theory combined with the telegrapher's equation. We  
describe solutions of the Coherent Perfect Absorption (CPA) condition that are in-  
terpretable as the slab dielectric anti-laser. We find a host of other solutions, some  
of which have no simple optical analogue. Broadband solutions are found which  
hint at the possibility of a new type of asymmetric transient CPA phenomenon, and  
point out that this study suggests a potentially new low loss, reversible RF devices.

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