



Design High-Efficiency RF Power Amplifiers. Without Guesswork.

Stop iterating blind. The **Ampsa Waveform Engineering Dataset (H2ID Series)** gives RF PA designers a complete, precomputed map of complementary voltage and current waveforms across the Second-Harmonic Input Distortion space — so you start every design from a position of knowledge, not trial and error.

What's inside:

- Normalized waveform pairs at the intrinsic output reference plane
- Associated intrinsic harmonic load impedances
- Waveform efficiency mapped across the full *H2ID* space

Class-B and Class-F emerge naturally. Also do less-explored high-efficiency modes — including an inverse Class-F-like mode and a Class-B-like mode, both at **87% waveform efficiency**. With up to **90% efficiency achievable**, the dataset reveals operating points that conventional approaches simply miss.

Because waveforms are normalized and referenced to intrinsic planes, the dataset is **valid for any transistor** — scale to your device's limits and map to your external reference plane.

Available as a technical PDF, with optional Excel and simulation-ready C++ datasets.

Single-user and company licences available.

Use it to:

- Instantly identify optimal and non-classical operating modes
- Identify your best operating points – and the ones to avoid
- Select several good starting points, then refine with tuning or pull simulations
- Use the starting points to synthesize load and input matching networks and then optimize these networks
- Drastically reduce design cycles
- Complement load/source-pull simulations or measurements

Who it's for: RF PA Designers · Microwave Engineers · Load-pull Specialists · Academic Researchers