

CurrentRF

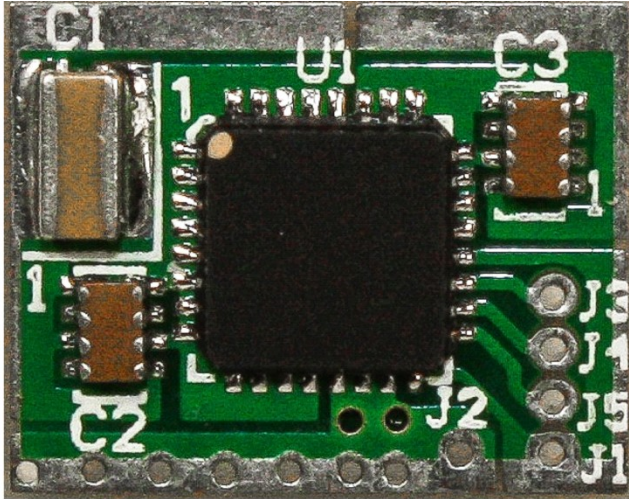
On-Chip Super Capacitor IP
(Power Optimizer)

Michael Hopkins
Founder and CEO

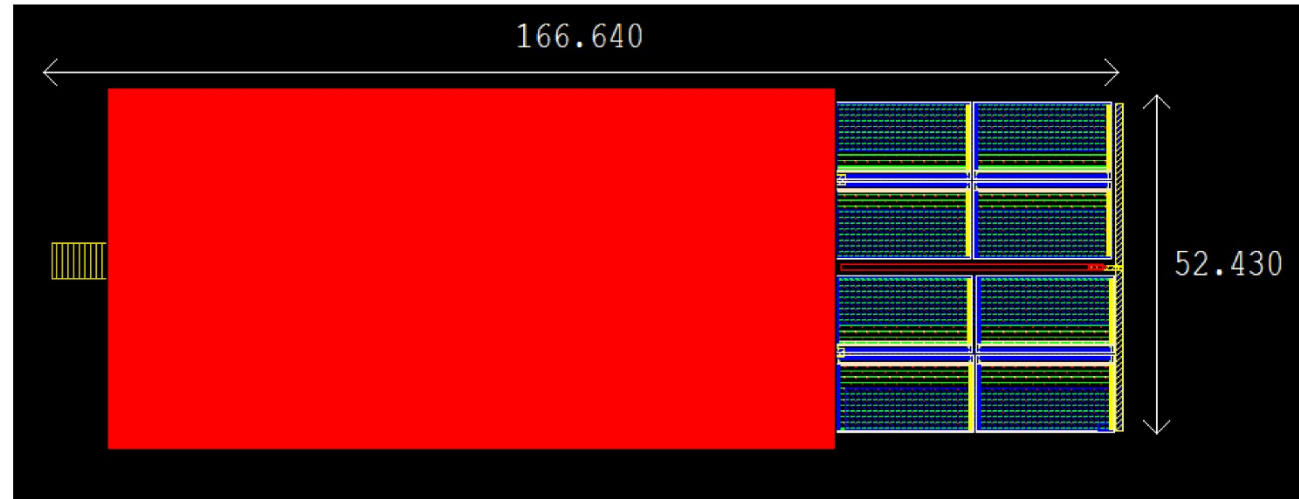


Current RF

IP Product Offerings



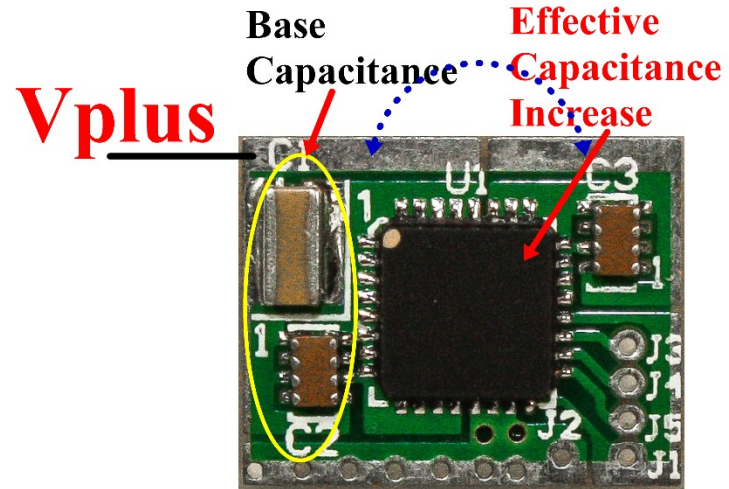
CC_100 Super Cap IP Test Chip



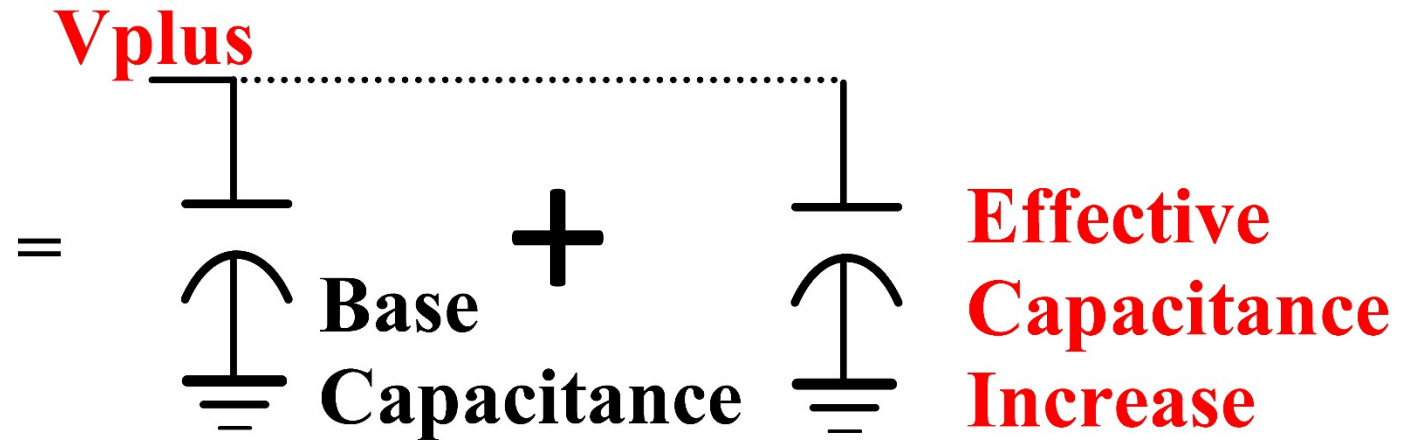
CC_100 Super Cap IP Cell

Patent Pending

Super Capacitor IP Test Chip (Theory)

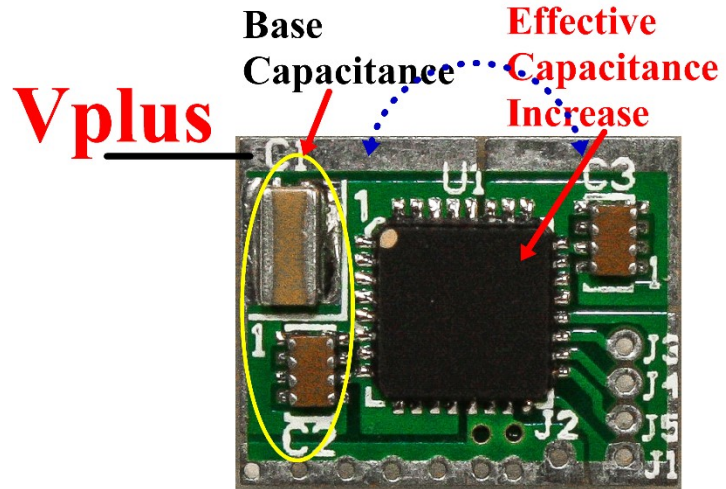


CC_100 Super Cap IP
Test Chip

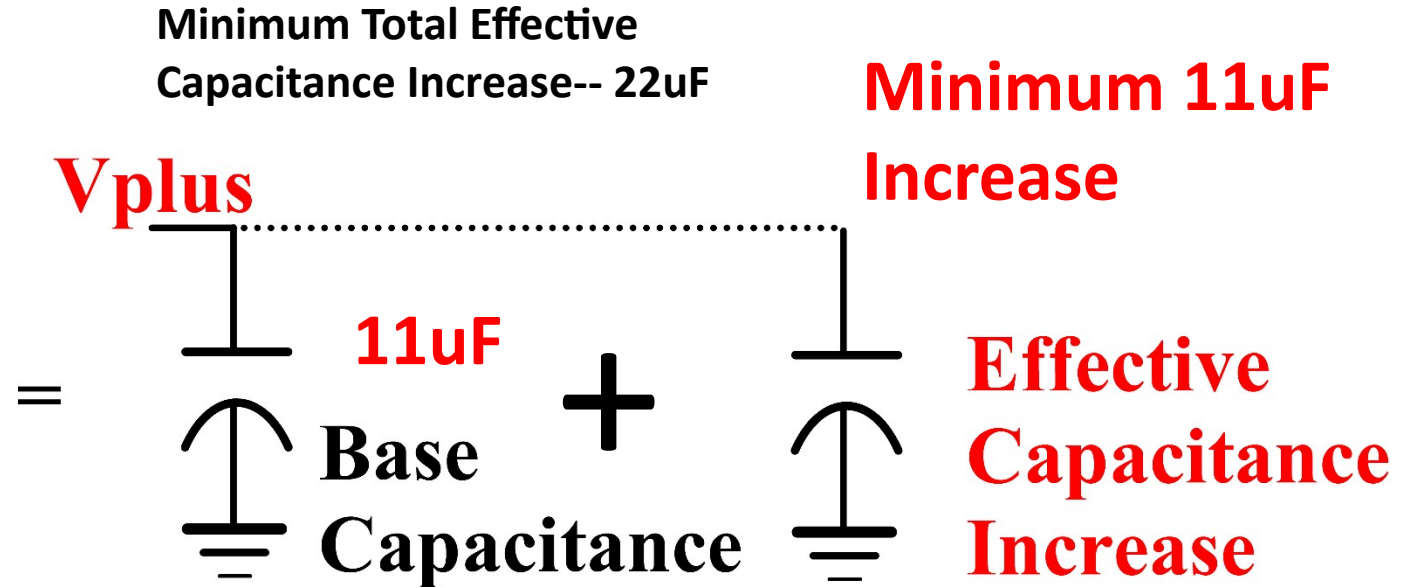


Patent Pending

Super Capacitor IP Test Chip(Example)



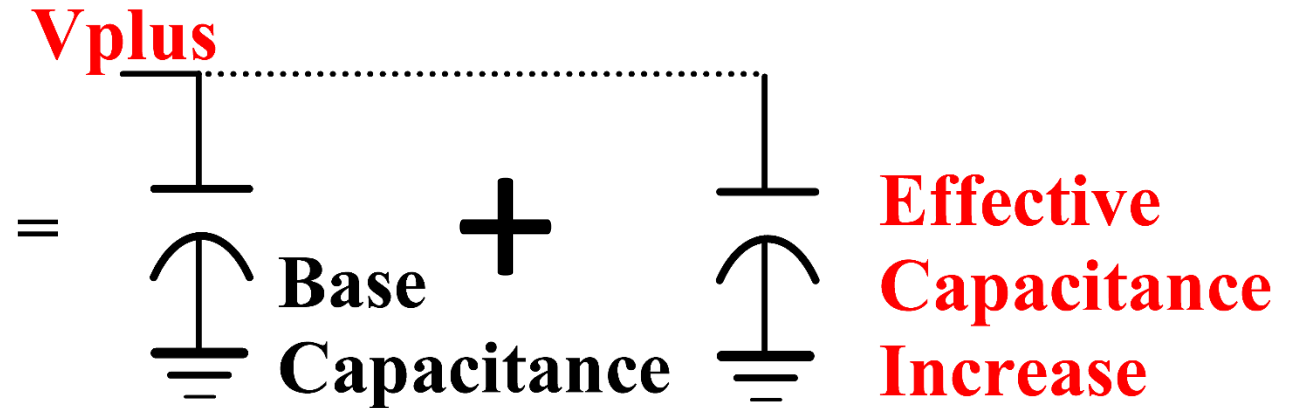
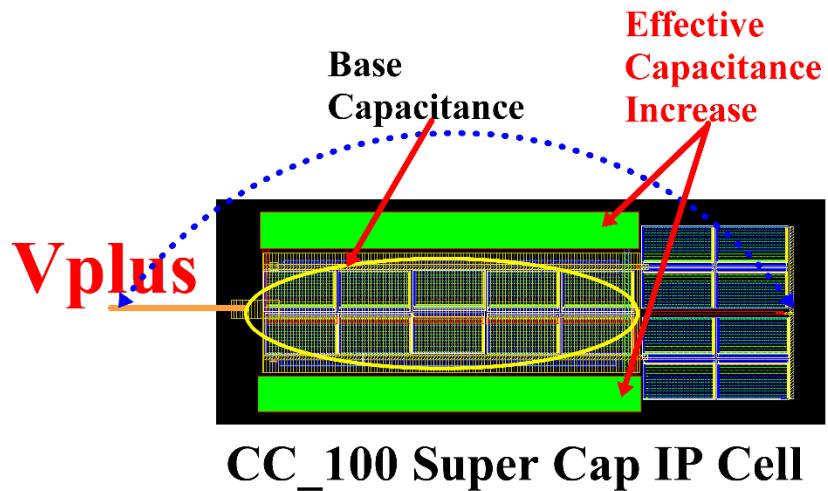
CC_100 Super Cap IP Test Chip



Patent Pending

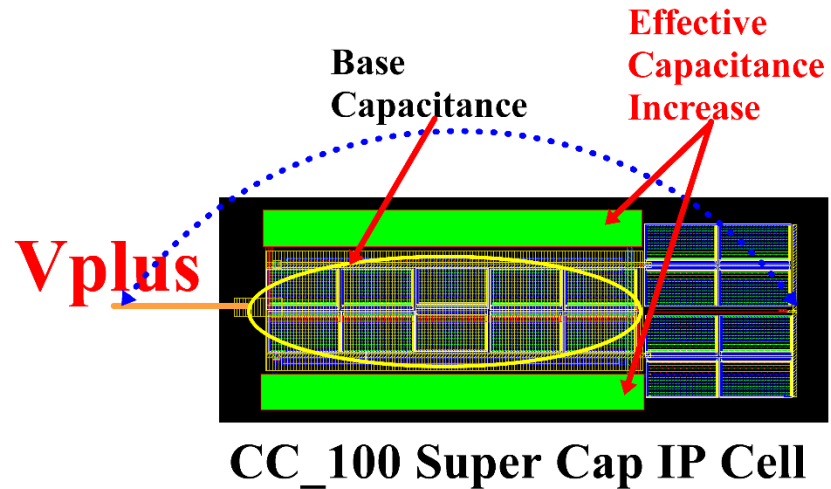
The Effective Capacitance Increase Follows the Base Input Capacitance

CC_100 Super Capacitor IP (Theory)

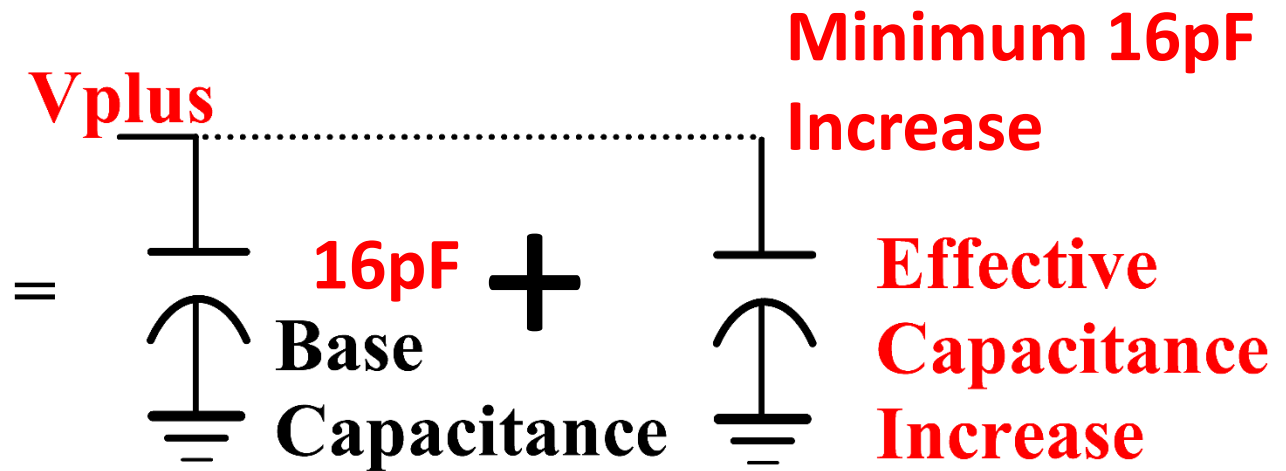


Patent Pending

CC_100 Super Capacitor IP (Example)



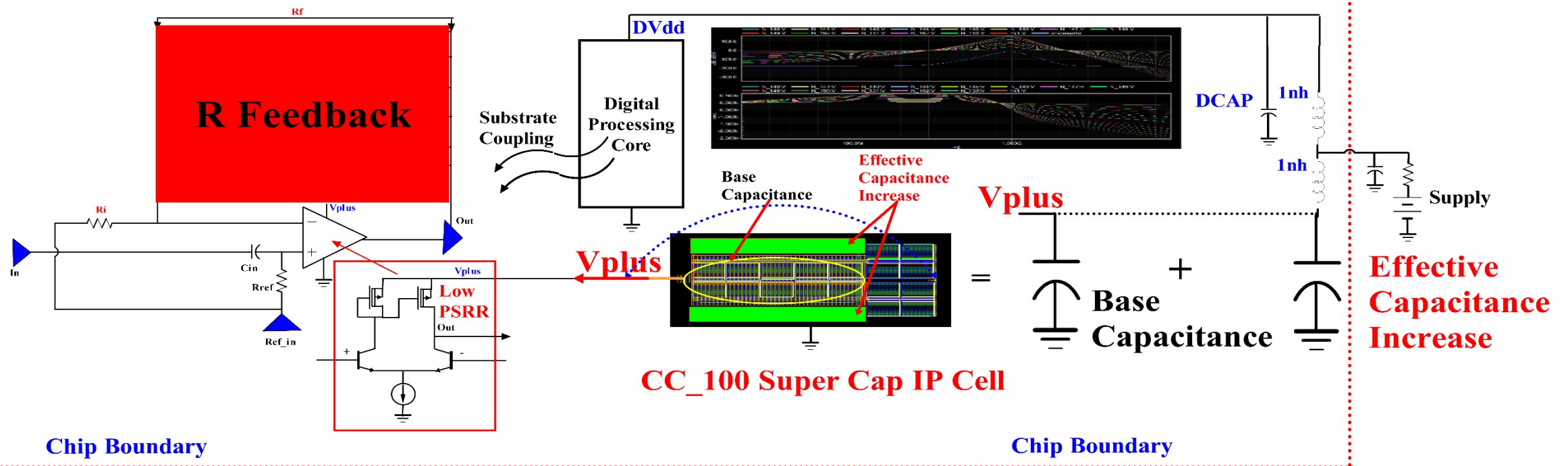
Minimum Total Effective
Capacitance Increase– 32pF



Patent Pending

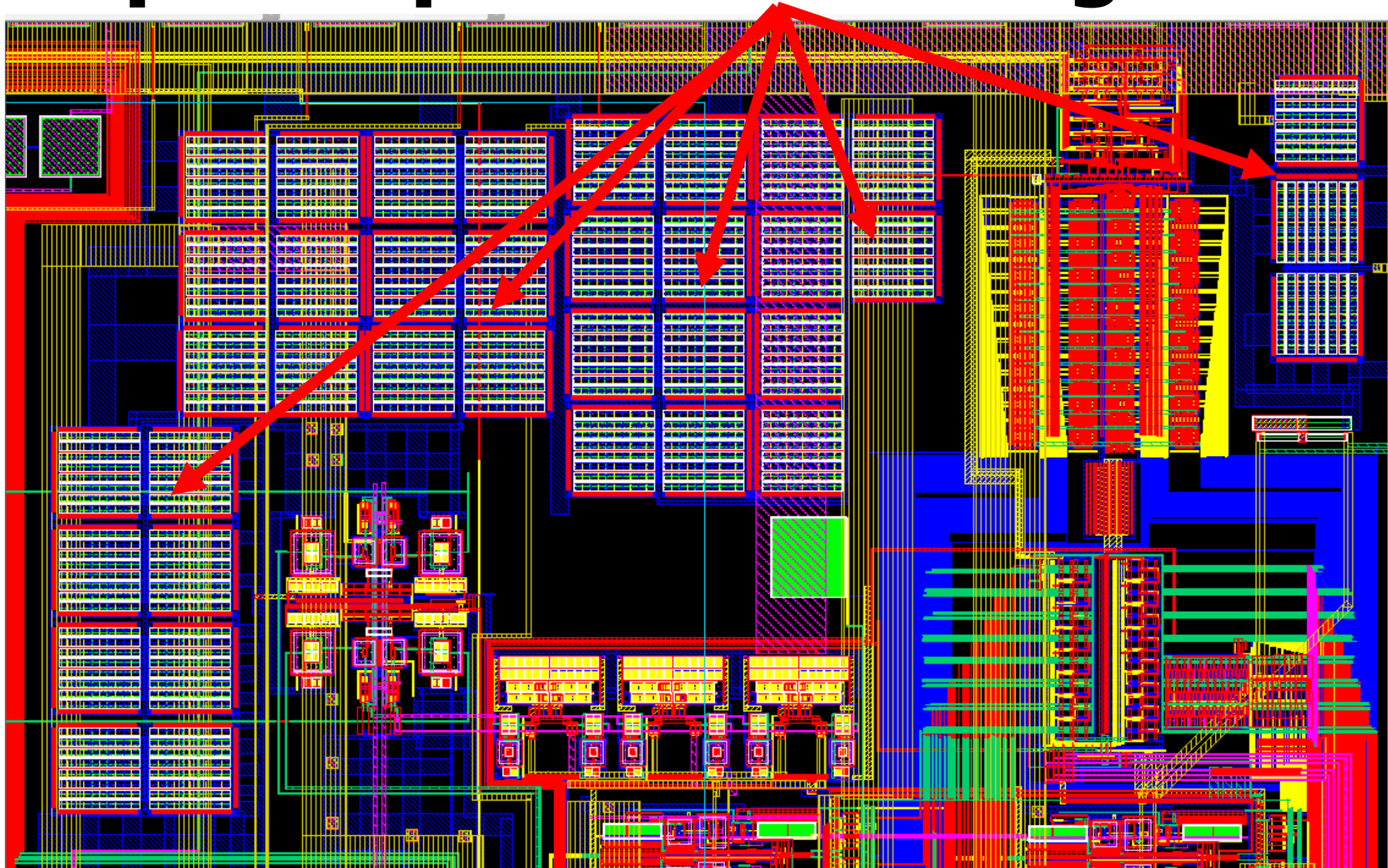
The Effective Capacitance Increase Follows the Base Input Capacitance

RF Amplifier Sensitivity Enhanced with the CC_100 Super Capacitor IP



Patent Pending

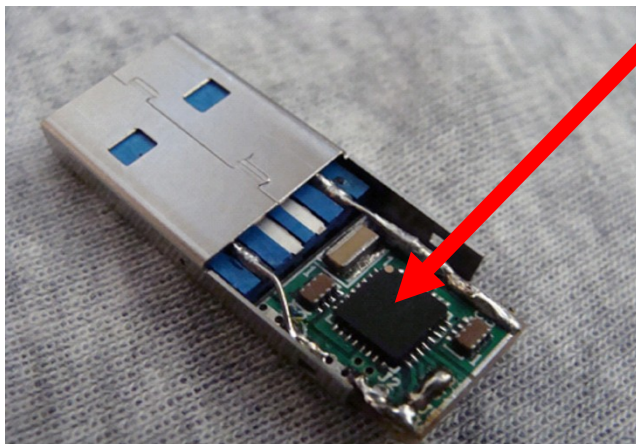
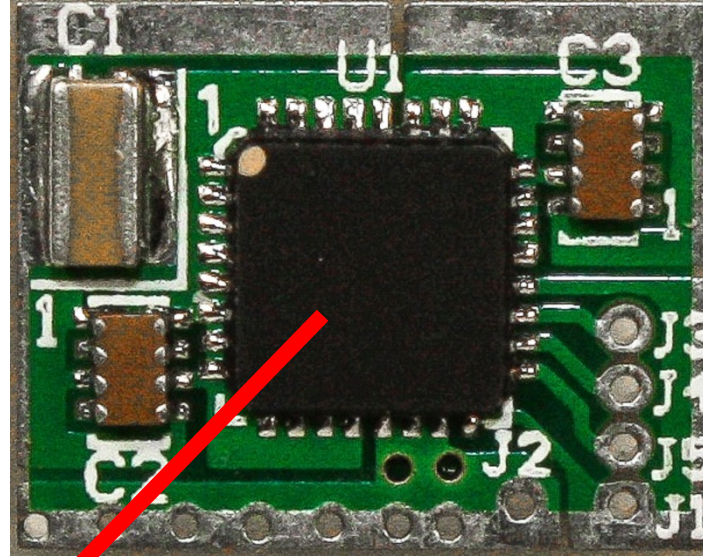
Super Capacitor IP Integration



CC_100 Super Cap IP Benefits/Features

- Energy Harvesting (Up to 20% Reduction in Dynamic Current)
- RF Emissions Reduction(Up to 20% over Standard DCAPs)
- At least a 2X Effective Capacitance increase over standard DCAPs
- A 25% reduction in Effective Series Inductance (ESL)
- Enhanced System PSRR(Cleaner System Spectral Outputs)
- Draws No Operational DC Power
- CC_100 IP can be shaped into any form factor
- CC_100 IP used as a standard DCAP
- Customizable Design

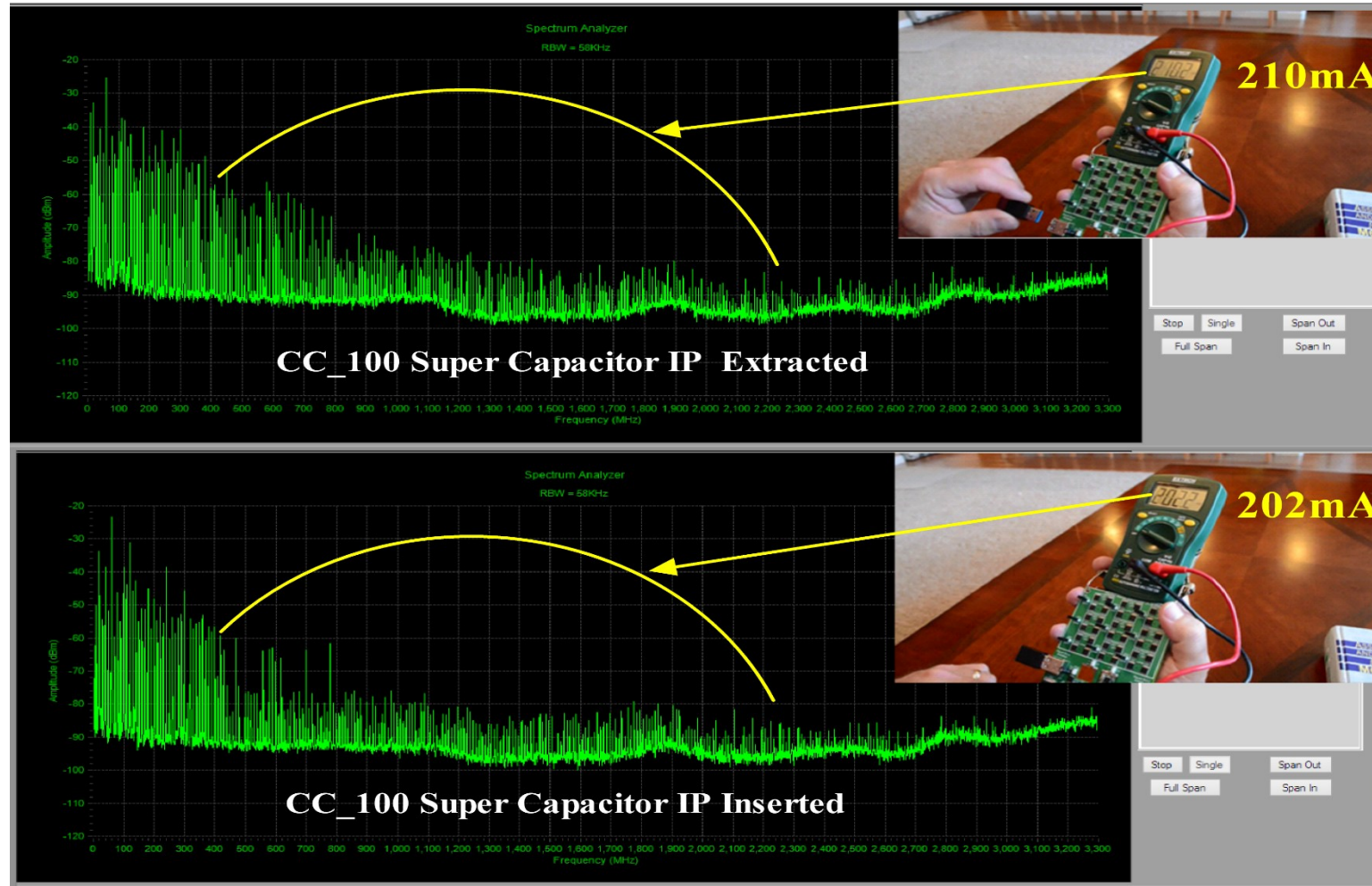
CC_100 IP Equals PowerStic/Exodus



CC_100 IP in USB PowerStic Packaging

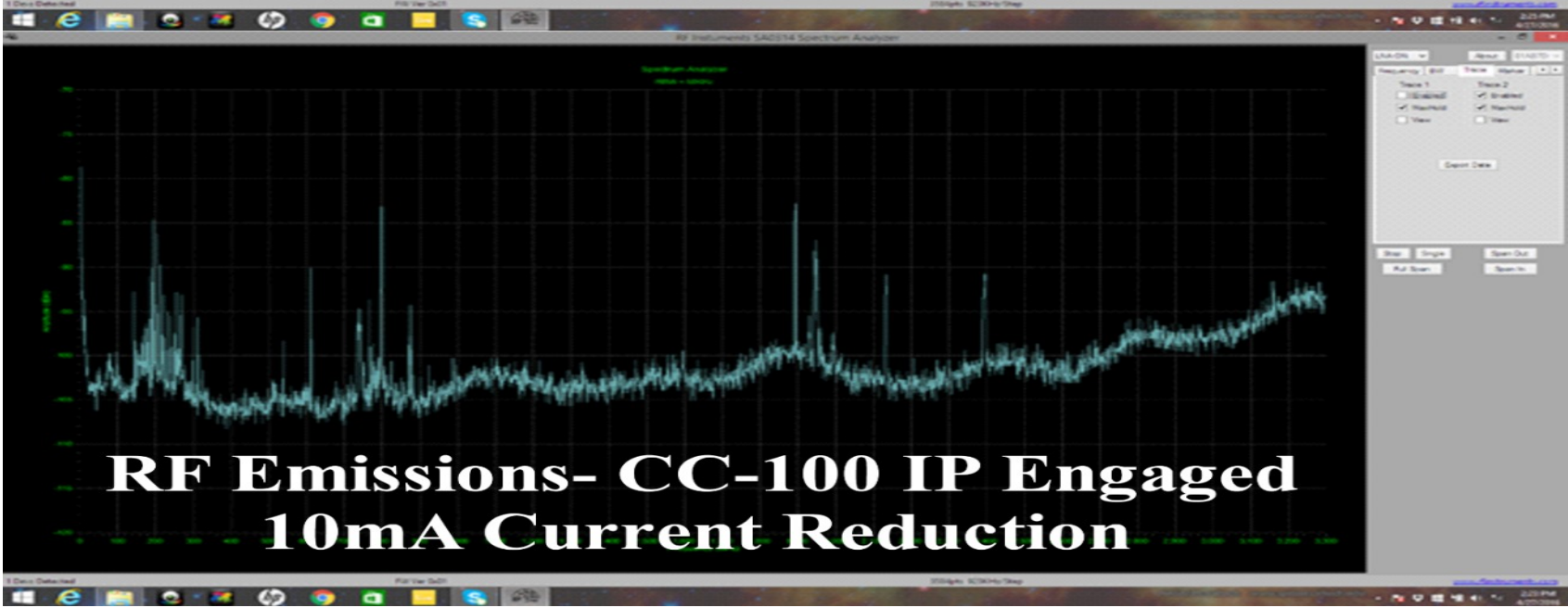
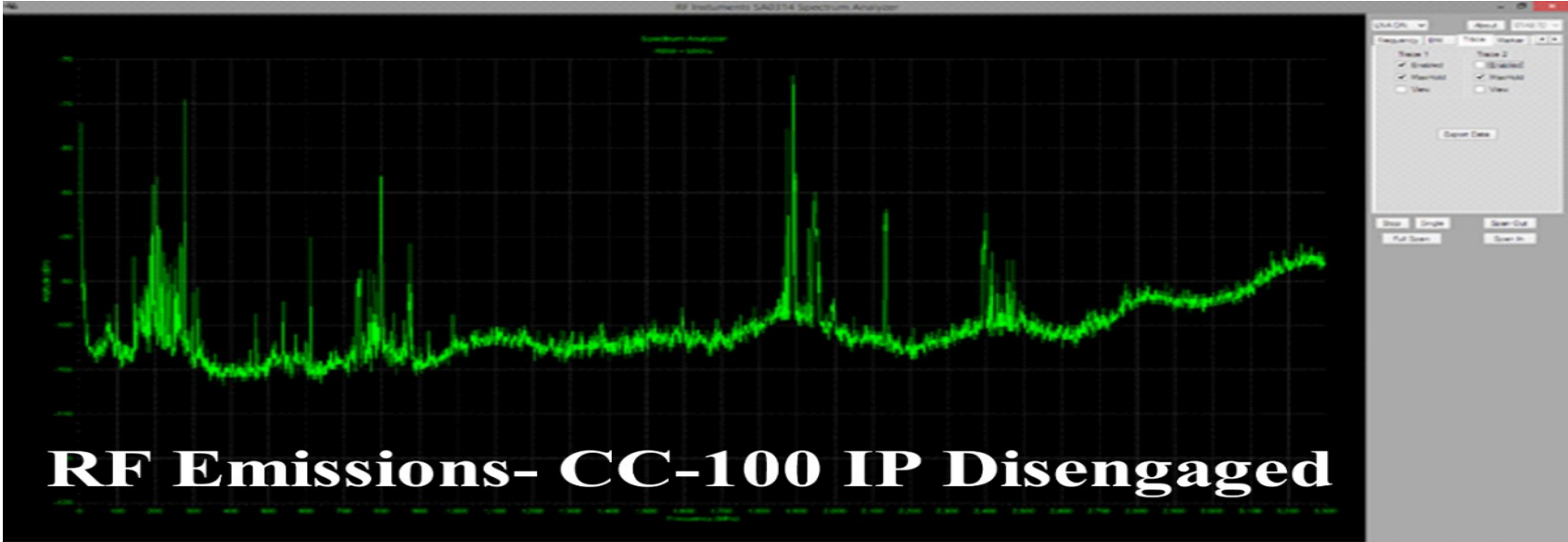


CC-100 IP Dynamic Power and Emissions Reduction

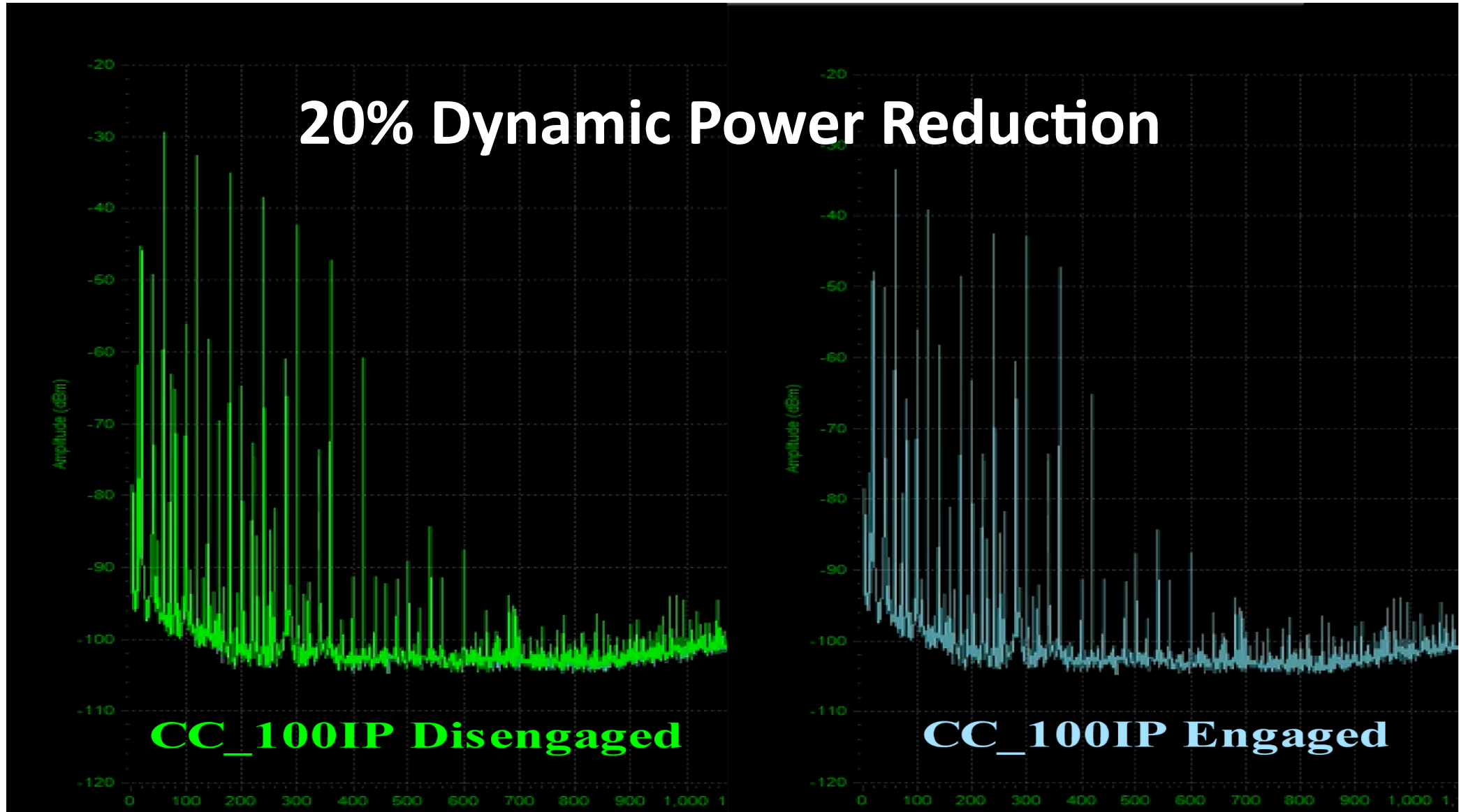


**Missing/Suppressed Frequencies
Equals Cancelled Emissions and Power Saved
1 Watt/25 Watts=4% Minimum Power Reduction
(1/5 the total power of a Supermicro Server *or*
Roughly Equivalent to an Average Laptop)**

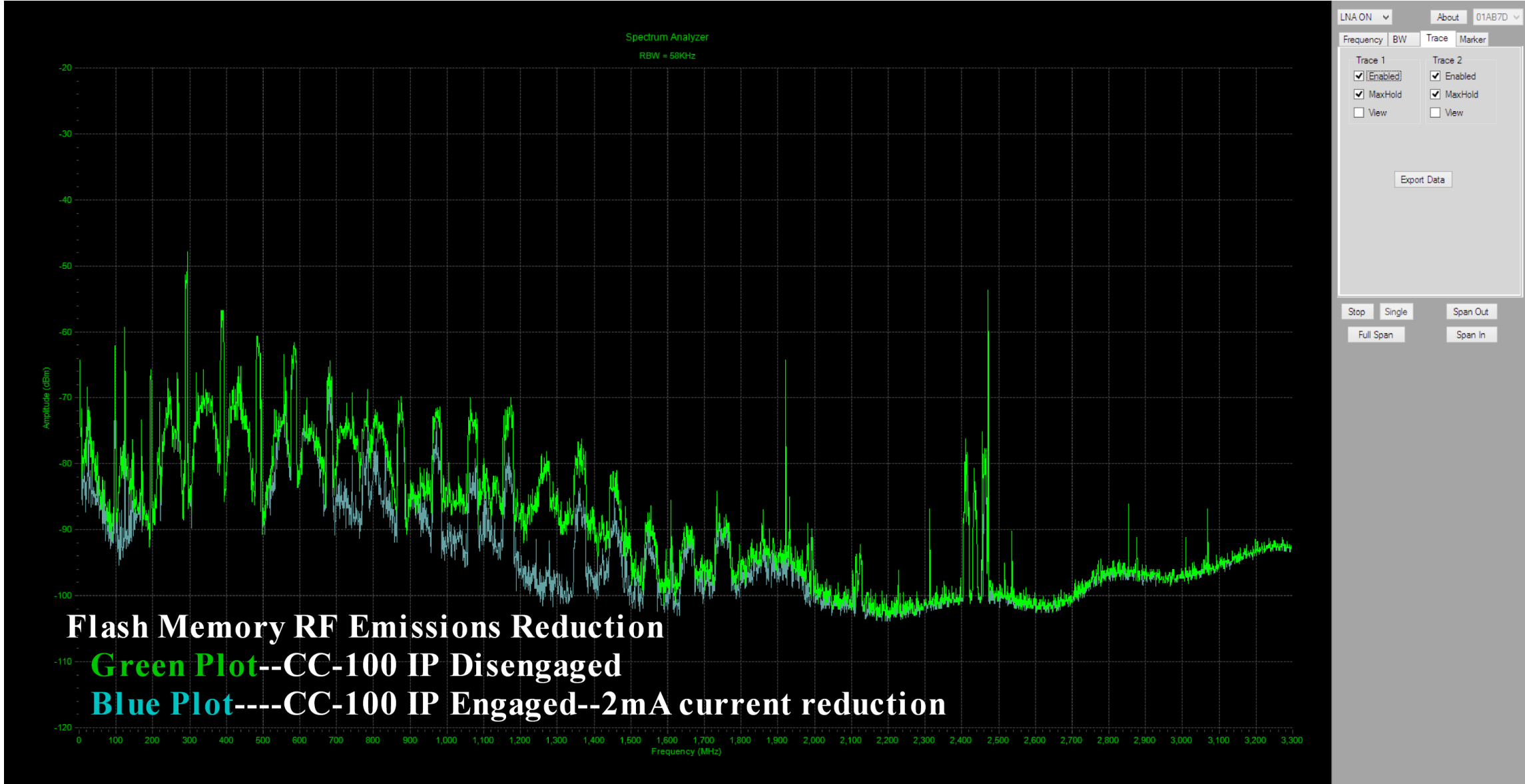
CC-100 IP High Frequency Dynamic Emissions Reduction



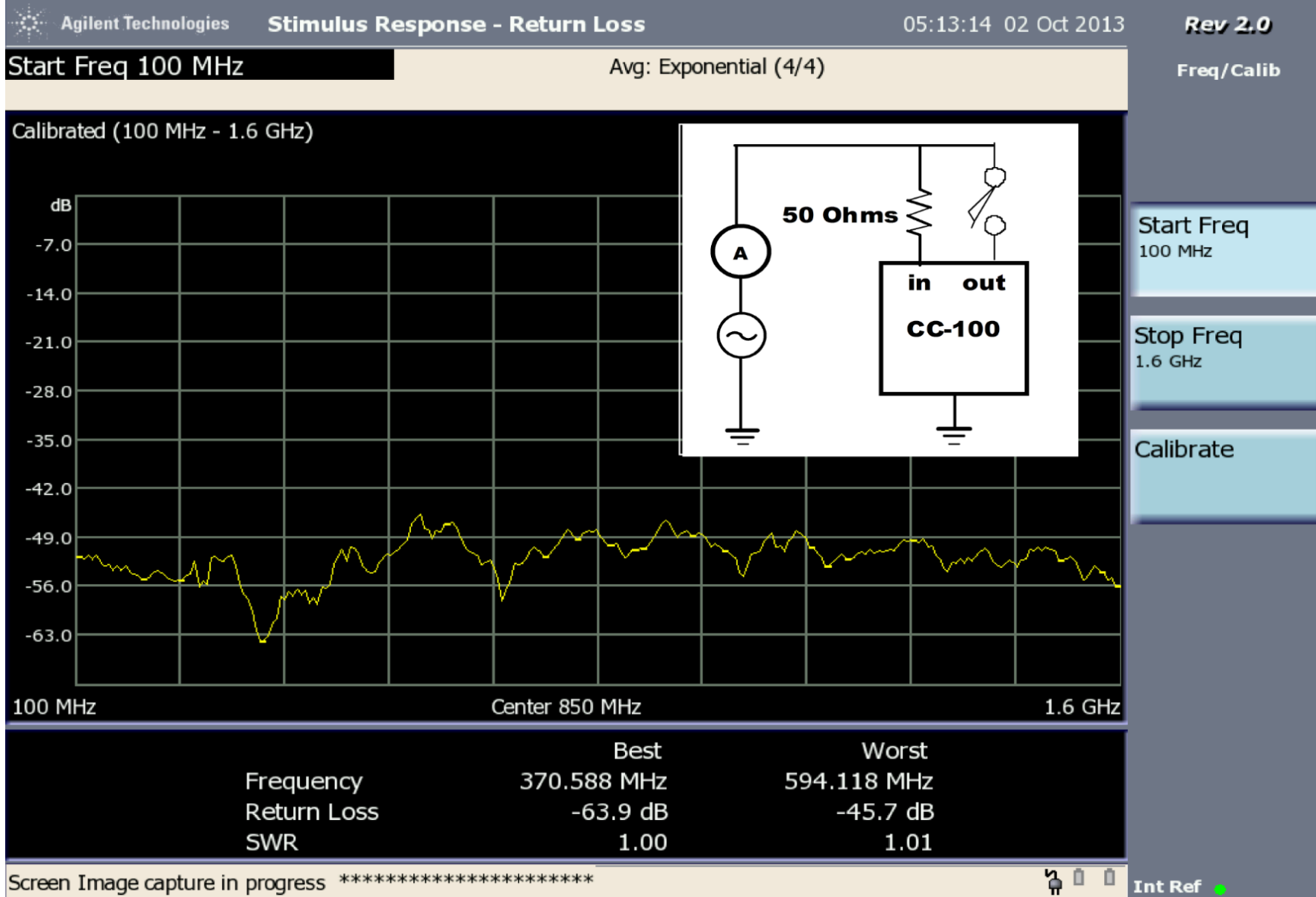
CC_100 IP Low Frequency Dynamic Emissions Reduction



CC_100 Flash Memory Power and Emissions Reduction

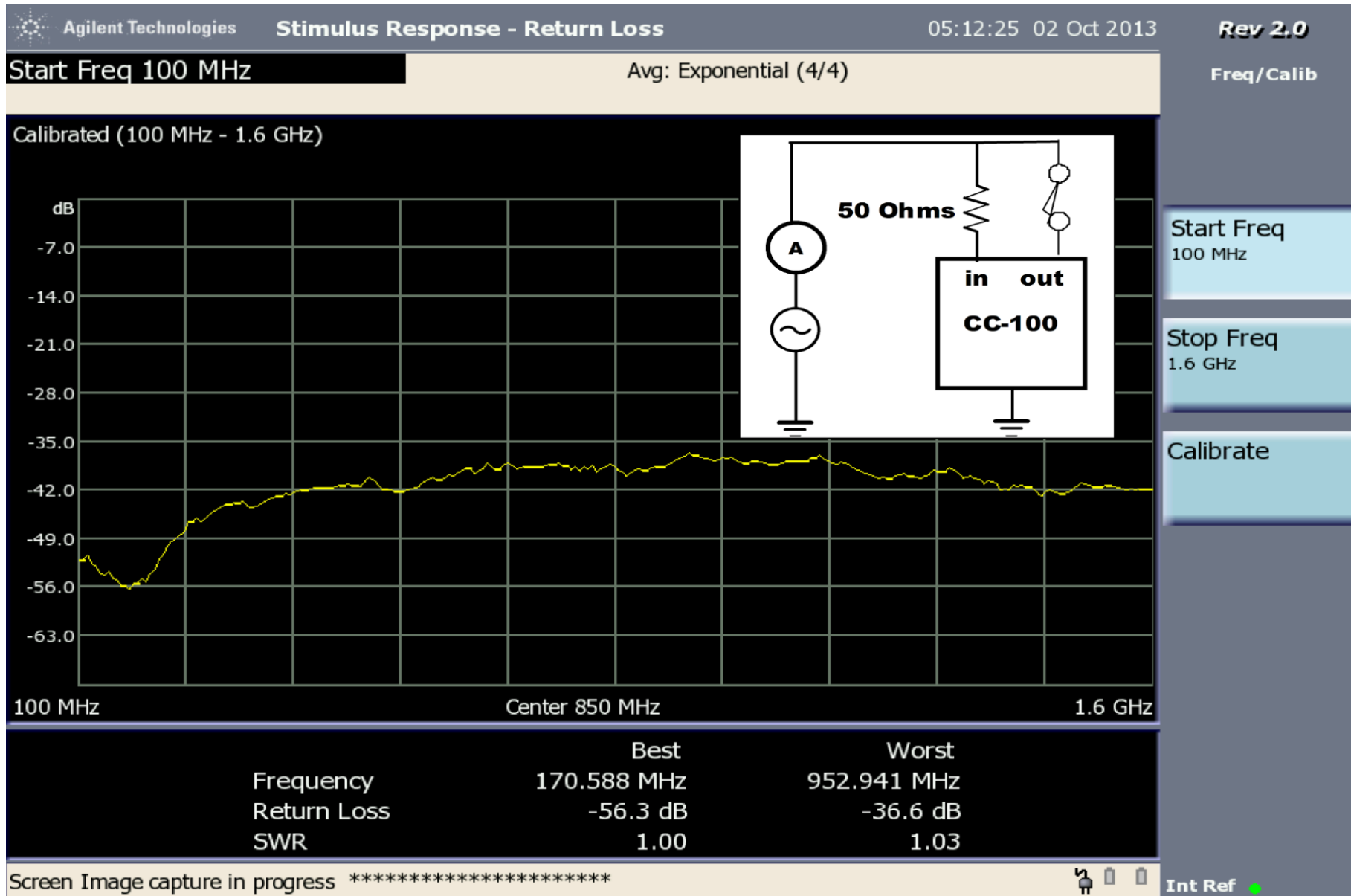


CC_100 IP S11 Input Reflection Performance



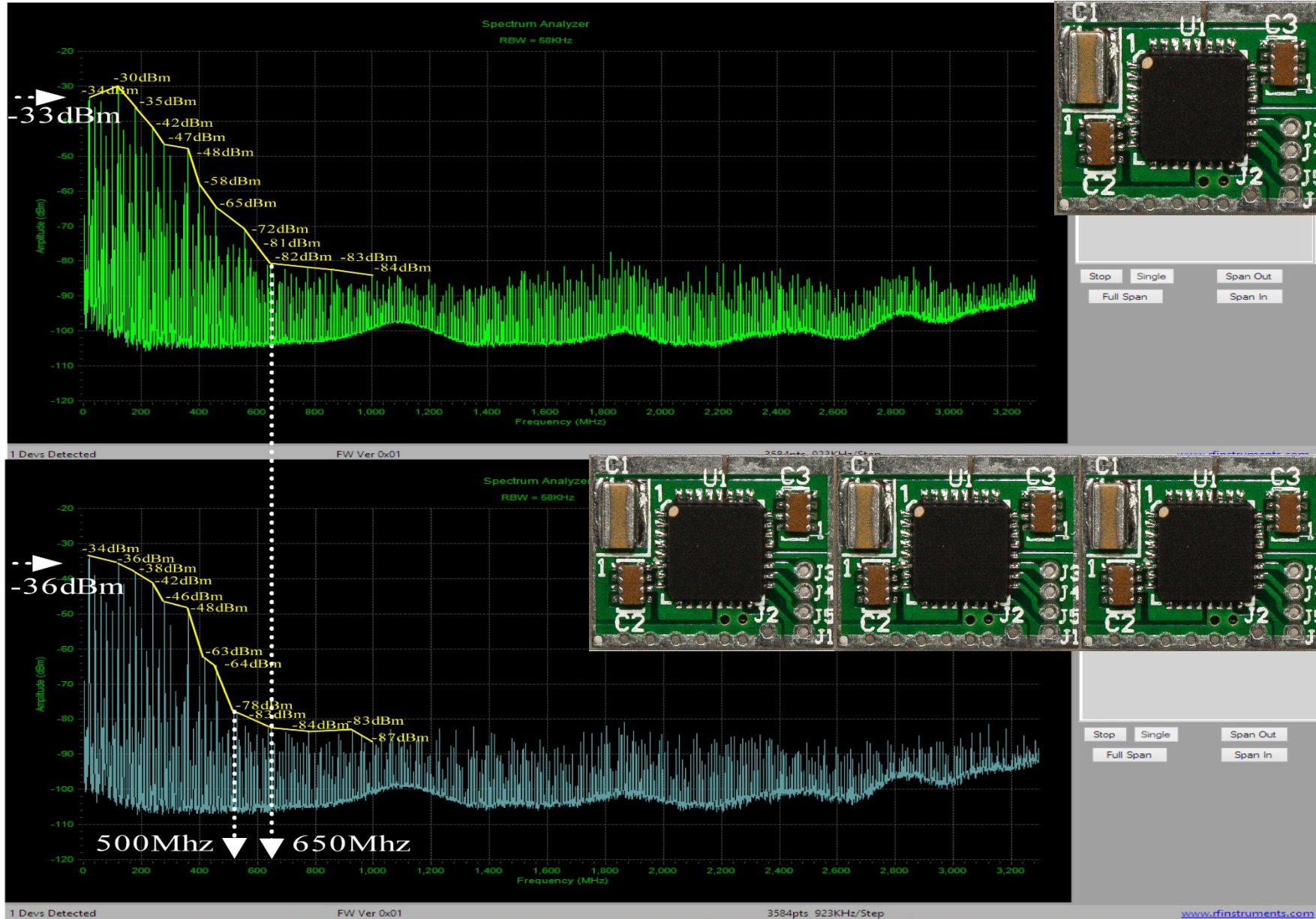
- Almost Perfect S11 Reflection Performance—SWR=1.00
- Lowest Impedance Point-370 Mhz
- Tracks an 11uF Capacitive Impedance Curve

CC_100 IP S11 Total Reflection Performance



- Network Analyzer Detectors Activated By CC_100 IP Return Current—
- Slight Reduction In Overall SWR
- Lowest Impedance Point-170 Mhz
- Tracks a 22uF Capacitive Impedance Curve

CC_100 IP System PSRR Enhancement



- Same Dynamic Current Reduction
- Spectral Bandwidth Noise Reduction With Multiple CC_100 IP Super Capacitor Cells.



Current RF

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