

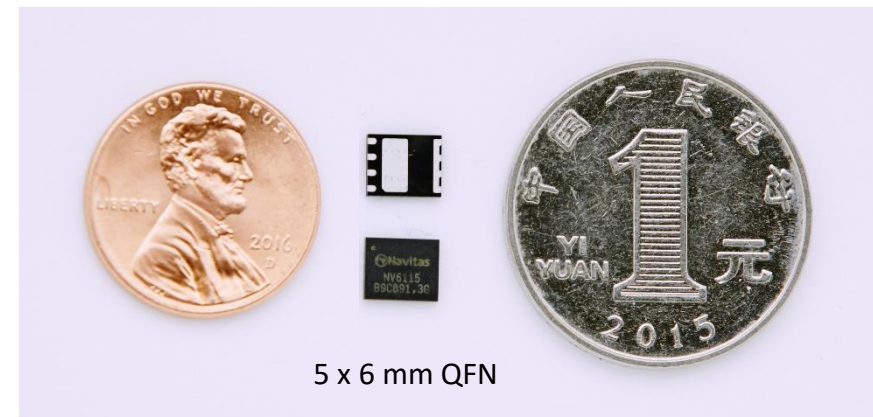
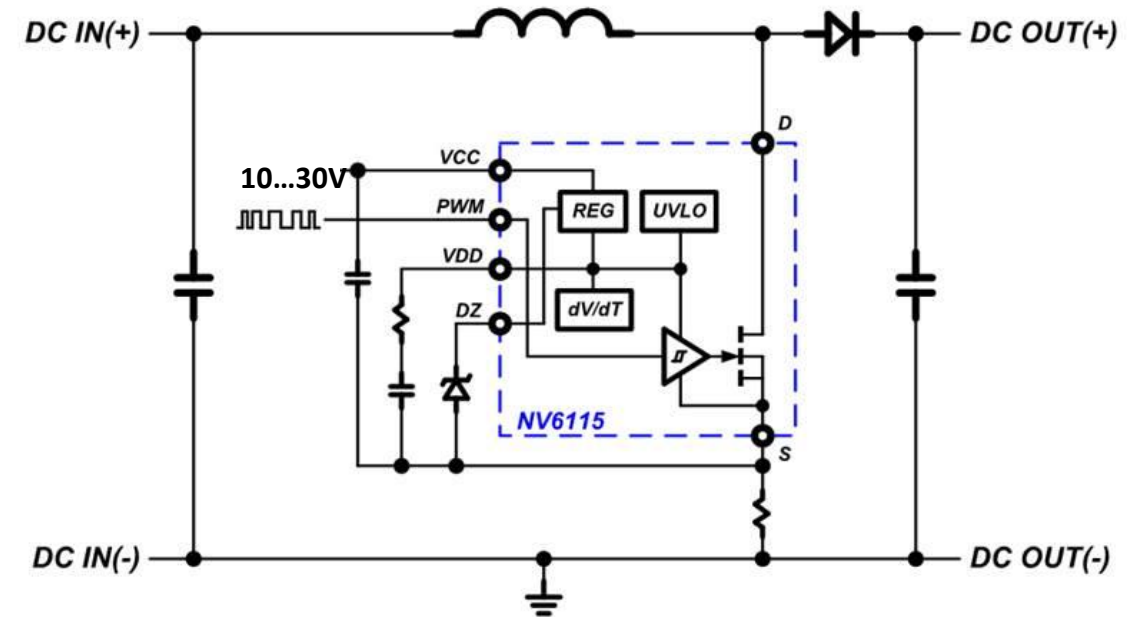
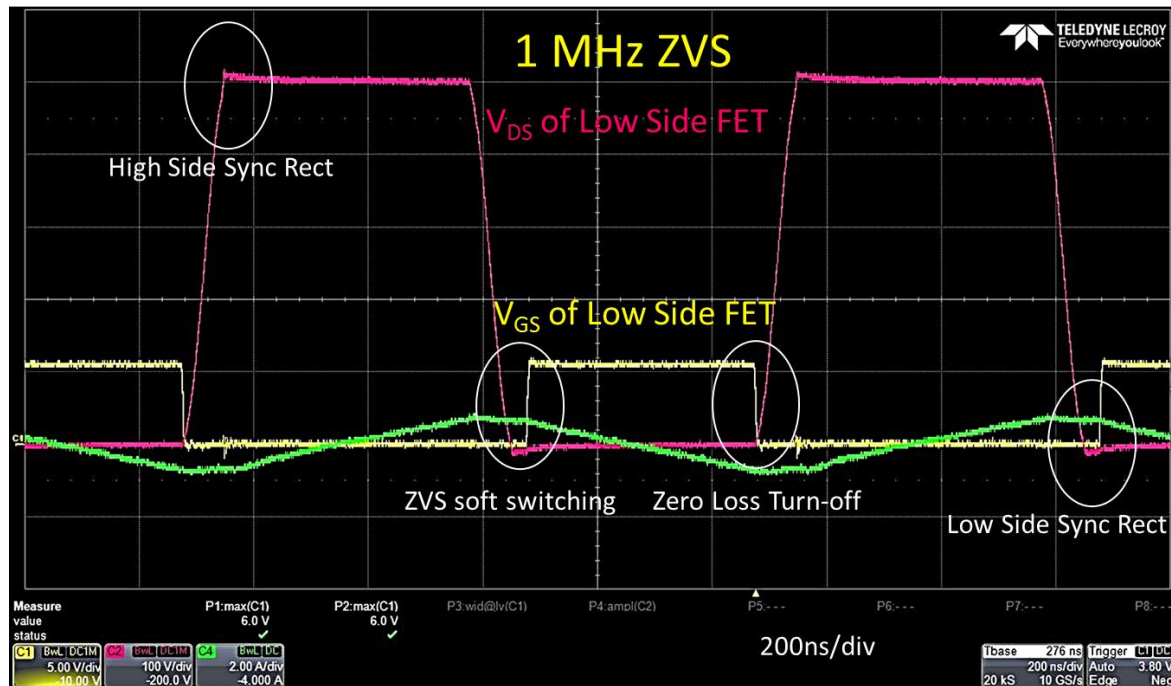


**GaN Power ICs deliver breakthrough system performance
with confident project costs and schedules**

PCIM 2017, Bodo's Power Systems
Stephen Oliver, VP Marketing & Sales, stephen.oliver@navitassemi.com

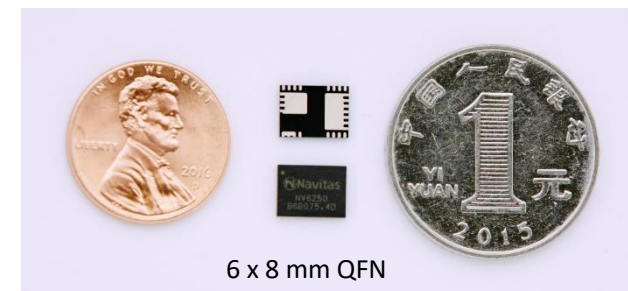
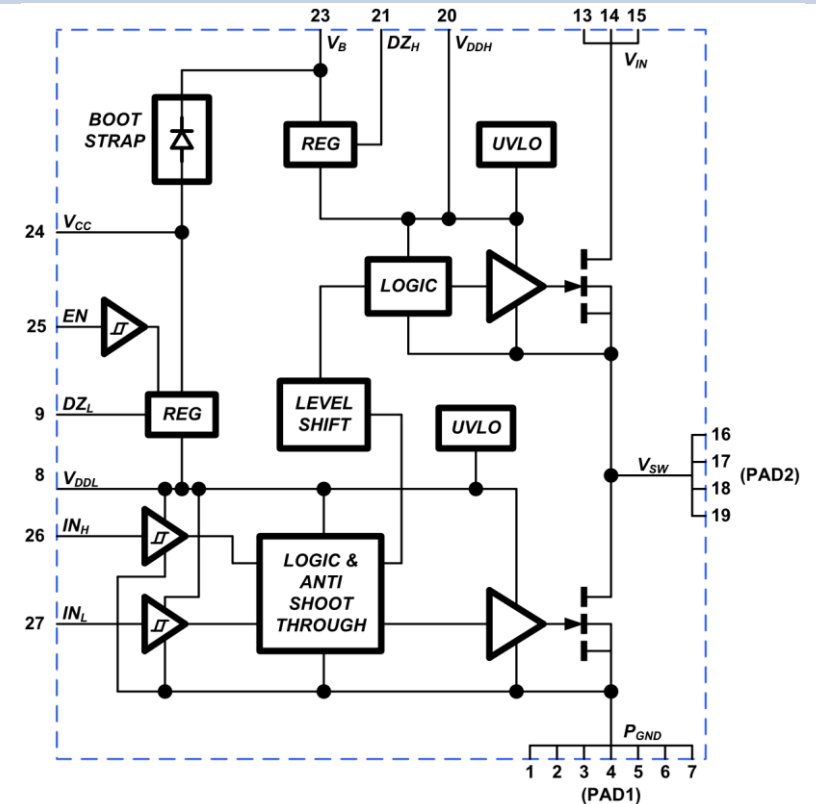
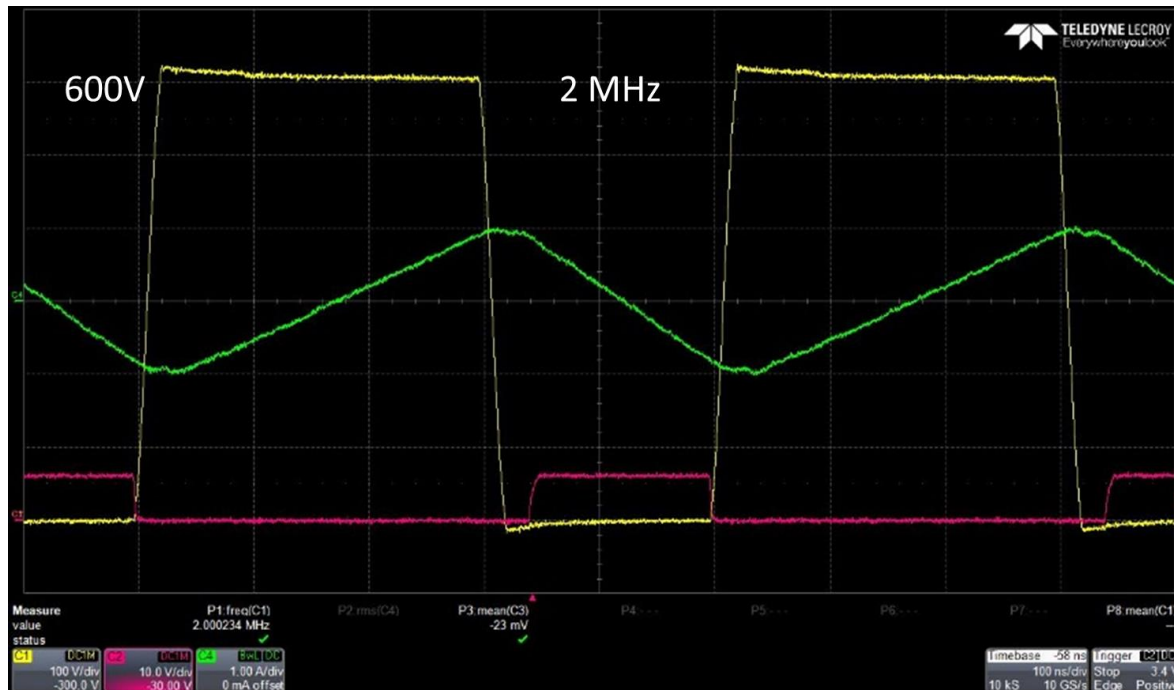
AllGaN™: Monolithic GaN Power IC

- Monolithic integration at 650V
 - GaN FET
 - GaN Driver
 - GaN Logic

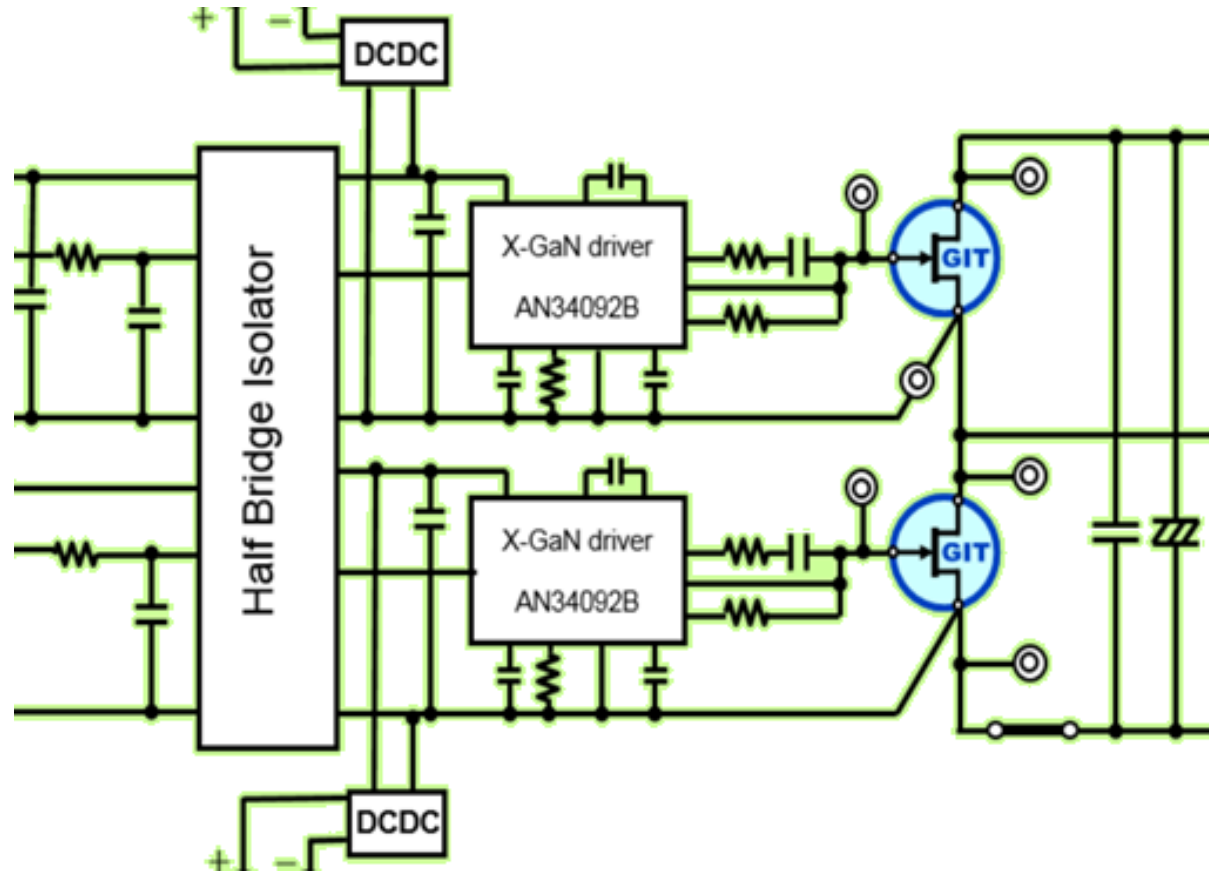


AllGaN™ Half-Bridge GaN Power IC

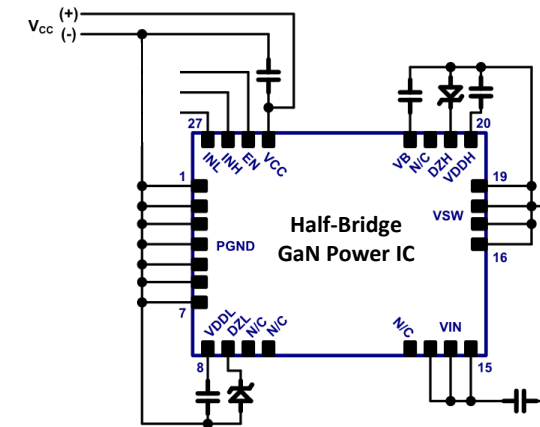
- Monolithic integration at 650V
 - 2x GaN FETs
 - 2x GaN drivers
 - GaN Logic (level-shift, bootstrap, UVLO, shoot-through, ESD)



Complex Design → Easy-to-Use

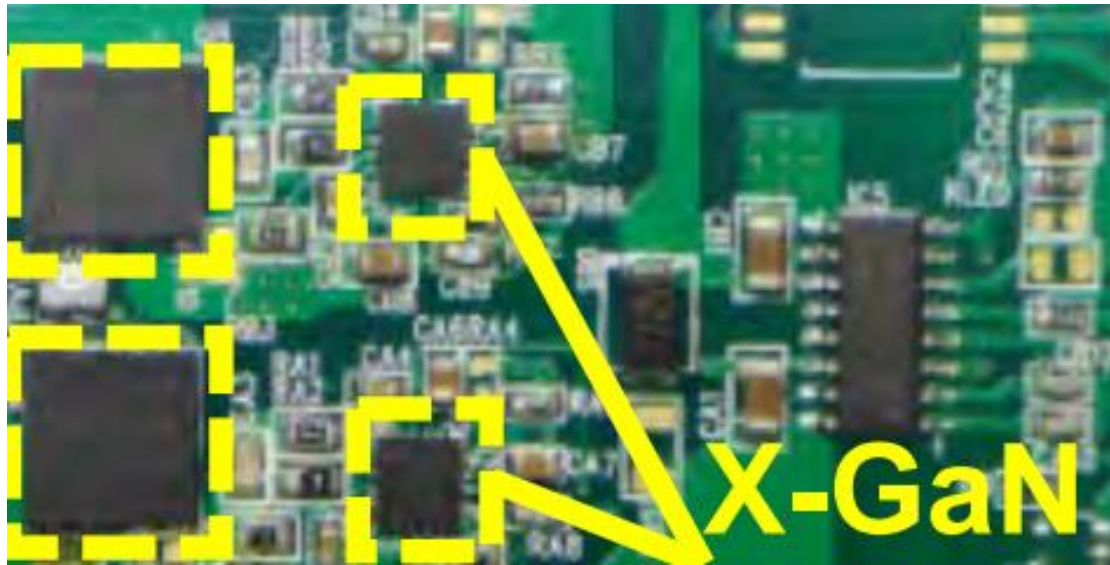


Panasonic PGA26E19BA-SWEVB008



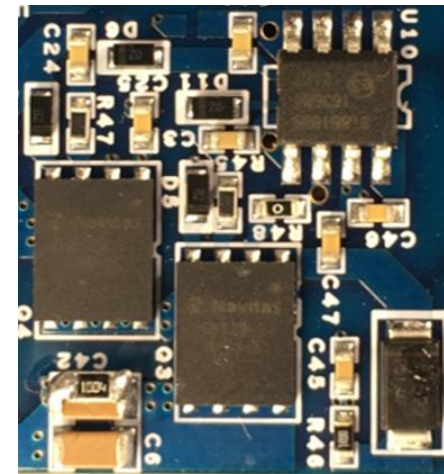
Navitas NV6260

20x Smaller, 10x Easier, 10x Less Current Draw



2x GaN FETs (PGA26E19BA, 190mΩ, 8x8mm)
 2x X-GaN Drivers (AN34092B, 4x4mm)
 1x Isolator (Si8275, SO16)
 + Bootstrap Diode
 + Rs, Cs

Approx. 24 x 42 mm = ~1,000 mm²
 I_Q >13 mA at 50 kHz



2x GaN Power ICs (NV6115, 160mΩ, 5x6mm)
 1x Isolator (Si8610, SO8)
 + Bootstrap
 + Rs, Cs

Approx. 18 x 18 = 324 mm²

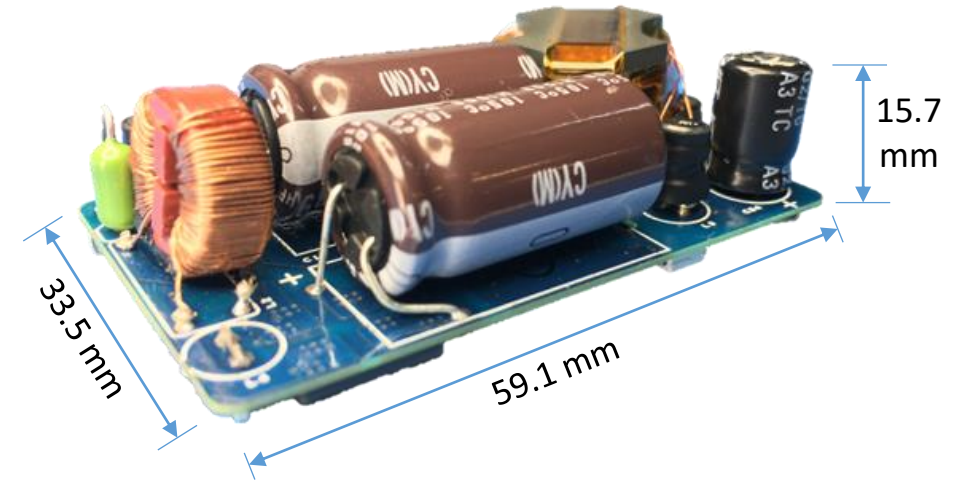


1x Half-Bridge GaN Power IC
 (NV6260, 2x160mΩ, 6x8mm)

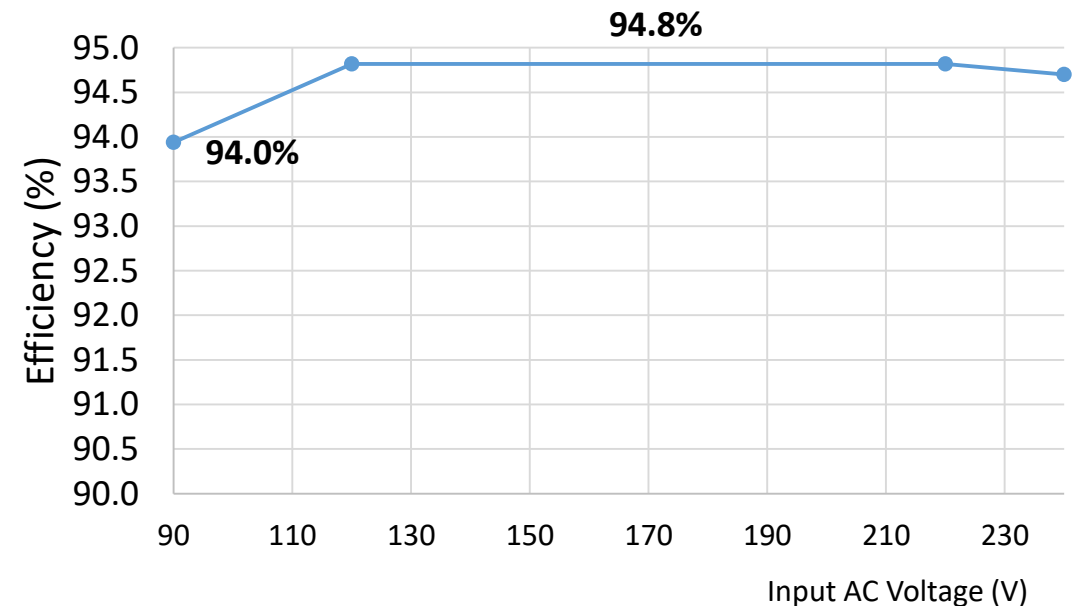
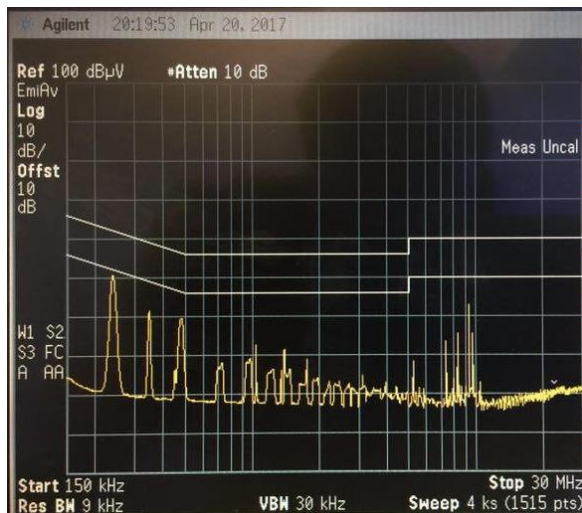
Area = 6 x 8 mm = 48 mm²
 I_Q = ~1 mA at 50 kHz
 = <3 mA at 1 **M**Hz

45W Active Clamp Flyback, 24 W/in³

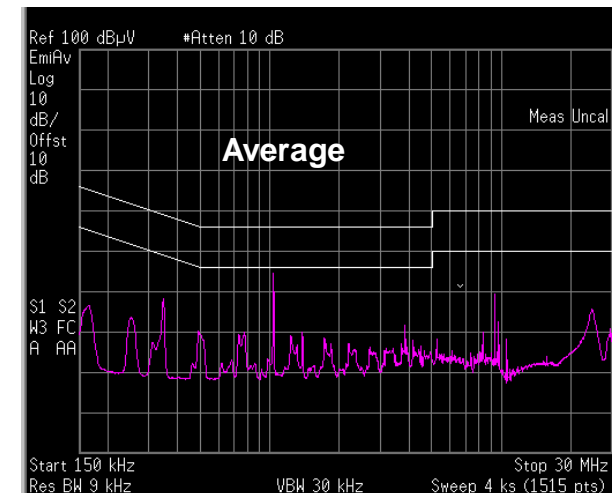
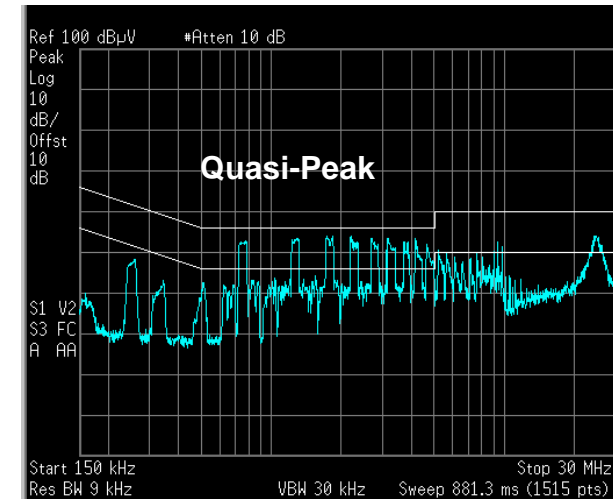
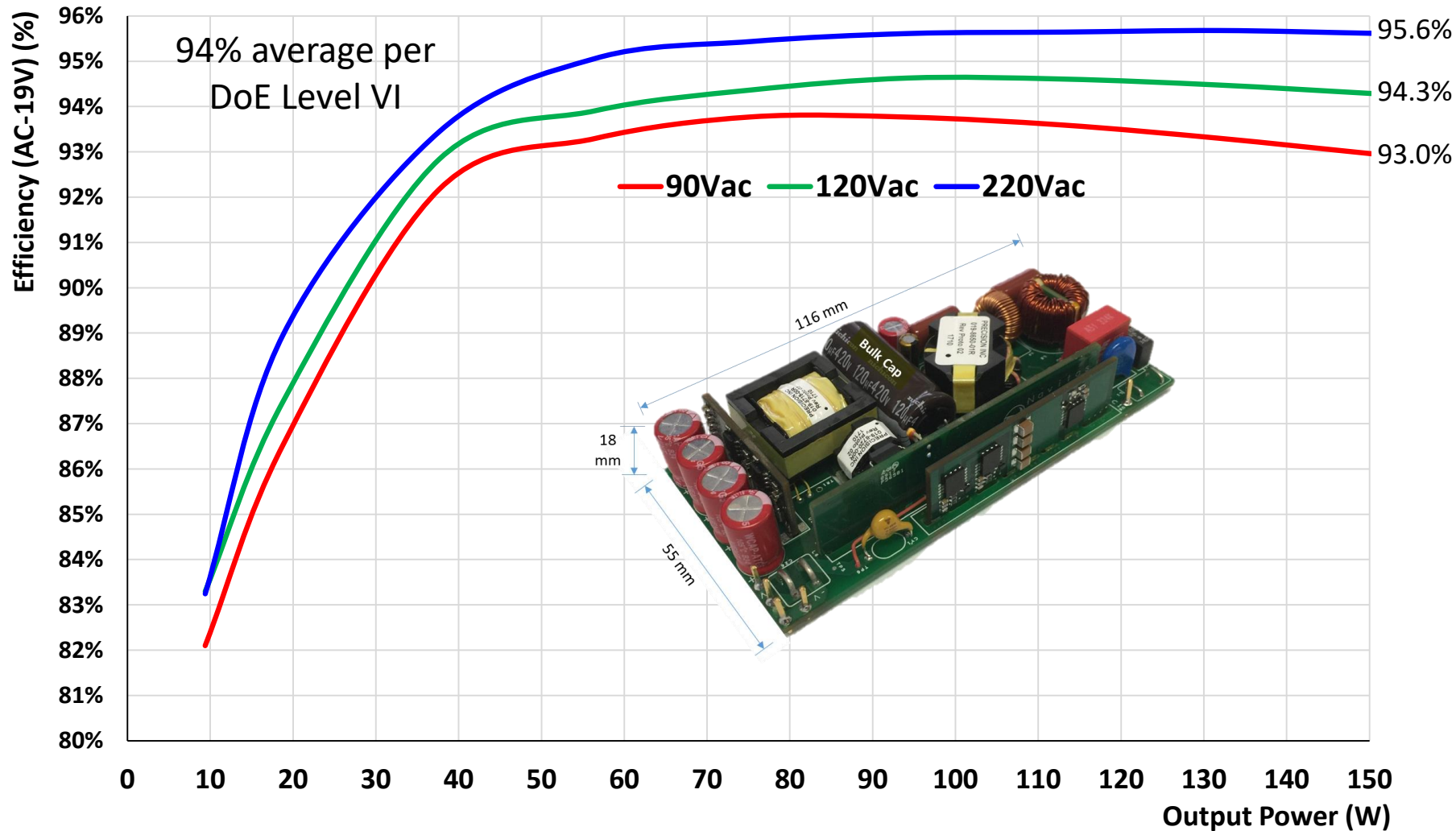
- High performance:
 - Efficiency = 94.8%
 - Power Density = 24 W/in³
- Easy design
 - Low component count
 - Good thermals, good EMI



Average EMI



150W AC-19V, ~300 kHz, 21 W/in³





Navitas
NV6250
iDrive

SPEED & EFFICIENCY

INTEGRATION



Navitas