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

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AllGaN™: Monolithic GaN Power IC

- Monolithic integration at 650V
  - GaN FET
  - GaN Driver
  - GaN Logic
AllGreen™ Half-Bridge GaN Power IC

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

600V 2 MHz

6 x 8 mm QFN
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
I₀ >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
I₀ = ~1 mA at 50 kHz
   = <3 mA at 1 MHz
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
150W AC-19V, ~300 kHz, 21 W/in³

94% average per DoE Level VI

Quasi-Peak

Average

Efficiency (AC-19V) (%) vs. Output Power (W)

- 90Vac
- 120Vac
- 220Vac

- 93.0%
- 94.3%
- 95.6%

94% average per DoE Level VI