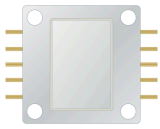
8000–12000 MHz GaN Packaged Power Amplifier — PSAT 46 dBm (typical)

LCI-PA-8000-12000-PS46T · 8000–12000 MHz · GaN Packaged Power Amplifier.

The RF table specifies: PSAT 46 dBm (typical); Power gain 24 dB (typical); PAE 37 % (typical). RF test conditions: TA = +25 °C; VDS = 28 V; VGS ∈ [-3.2, -2.2] V; Pin = 22 dBm; PW = 100 µs; D = 10%.



FPC1515-10

Apply gate bias before drain bias. Remove drain bias before gate bias.

Vg: C = 10 µF

Vg: 1, 5

RFin: 3

Vd: 6, 10

RFout: 8

NC: 2, 4, 7, 9

Package outline dimensions: 15.24 × 15.24 × 1.4 mm.

RF characteristics

TA = +25 °C; VDS = 28 V; VGS ∈ [-3.2, -2.2] V; Pin = 22 dBm; PW = 100 µs; D = 10%

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	8000	-	12000	MHz
Saturated output power	-	-	46	-	dBm
Power gain	-	-	24	-	dB
Power-added efficiency	-	-	37	-	%
Power-gain flatness	-	-	-	±0.5	dB

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain voltage	-	-	-	-	28	V
Gate voltage	-	-	-	-	[-3.2, -2.2]	V

Absolute limits

Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	-	-	-	32	V
Minimum gate bias	-	-5	-	-	V
Storage temperature	-	-65	-	150	°C
Maximum input power	-	-	-	27	dBm

Package outline dimensions

Parameter	Value	Unit
Package outline dimensions	15.24 × 15.24 × 1.4	mm

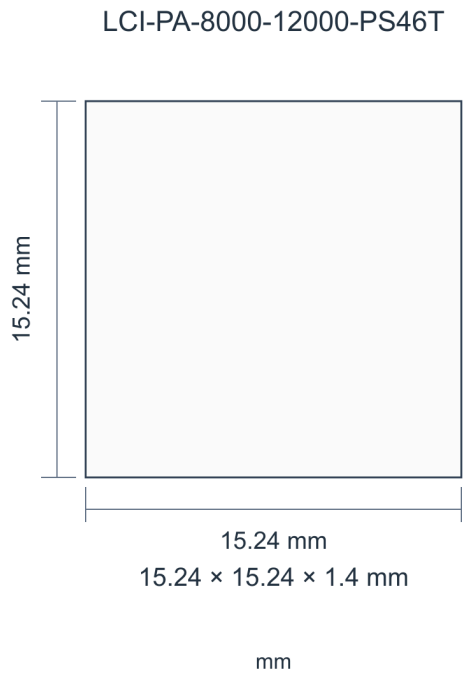
Current publication record · 1.8 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.7.

Integration notes

FPC1515-10 Apply gate bias before drain bias. Remove drain bias before gate bias. Vg: C = 10 µF Vg: 1, 5 RFin: 3 Vd: 6, 10 RFout: 8 NC: 2, 4, 7, 9

Mechanical Outline

Partial drawing showing confirmed dimensions in mm. Use the complete installation drawing for installation.

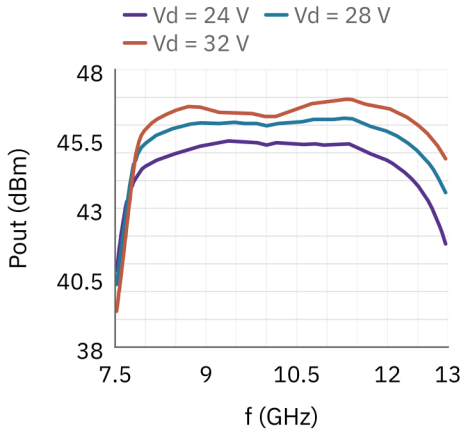


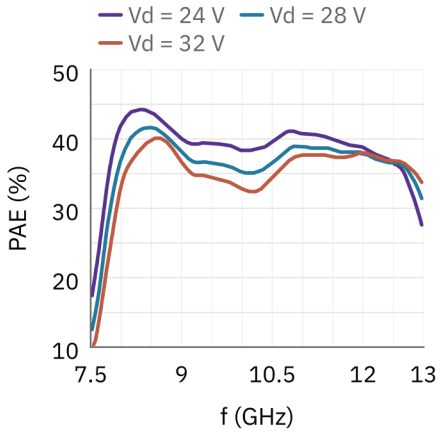
Performance curves

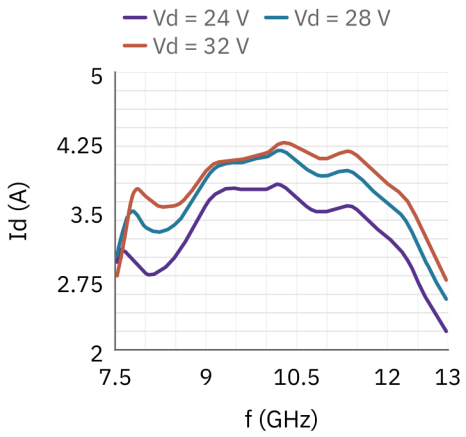
Each performance plot applies to its stated operating conditions.

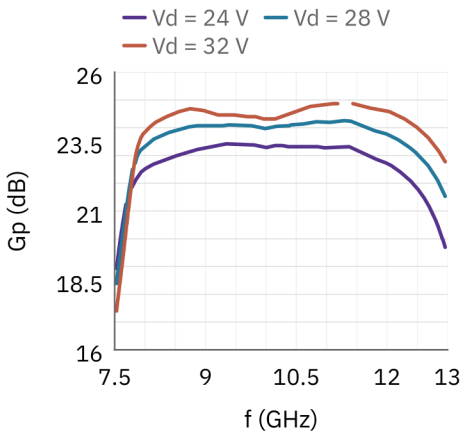
Output power; Power-added efficiency; Drain current; Power gain.

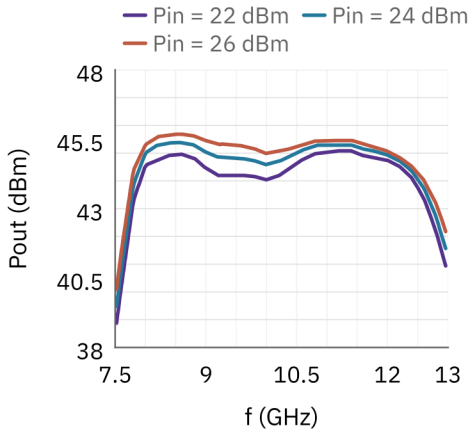
Readings are approximate. The first four plots are pulsed: PW = 100 µs; D = 10%; Pin = 22 dBm; Vg = −2.4 V; Temp = +25 °C; Vd = 24/28/32 V, by trace legend. The bottom Pout and PAE plots are CW: Vd = 28 V; Vg = −2.4 V; IDQ = 2.2 A; Temp = +25 °C; Pin = 22/24/26 dBm, by trace legend.

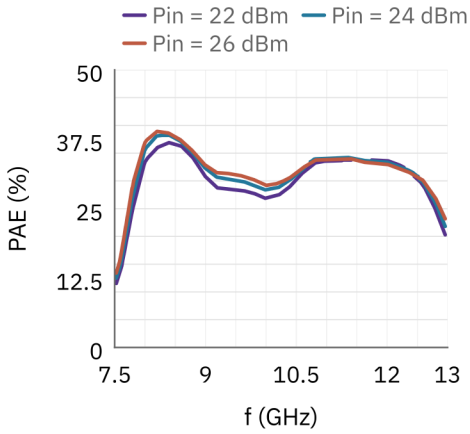


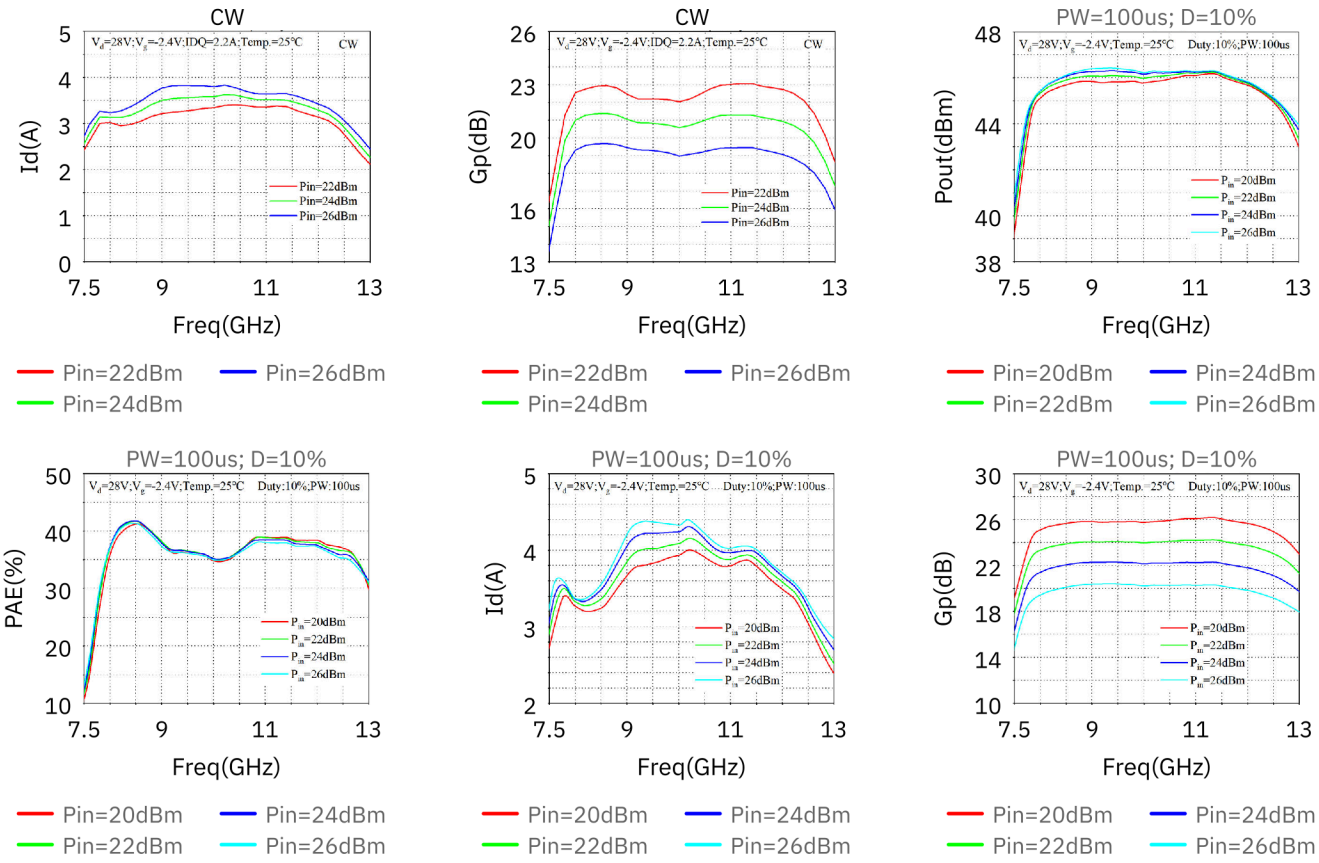












Output power; Power-added efficiency; Drain current; Power gain. Vd = 28 V; Vg = -2.4 V; TA = 25 °C. Plots 1–2: CW; IDQ = 2.2 A; Pin = 22/24/26 dBm. Plots 3–6: PW = 100 µs; D = 10%; Pin = 20/22/24/26 dBm.

Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.