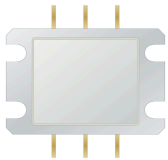
2300–3900 MHz GaN Internally Matched Power Transistor — PSAT 50 dBm (typical)

LCT-2300-3900-PS50T · 2300–3900 MHz · GaN Internally Matched Power Transistor.



The RF table specifies: PSAT 50 dBm (typical); Power gain 12 dB (typical); PAE 50 % (typical). RF test conditions: TA = +25 °C; VGS ∈ [-4, -2] V; VDS = 24–28 V; IDS = (0.2–0.5) IDSS.

GF136GD

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

Vg: C = 10 µF

The RF ports require external DC-blocking capacitors.

Vg: 1, 3

RFin: 2

Vd: 4, 6

RFout: 5

Package outline dimensions: 24 × 15.9 × 4.4 mm.

RF characteristics

TA = +25 °C; VGS ∈ [-4, -2] V; VDS = 24–28 V; IDS = (0.2–0.5) IDSS

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	2300	-	3900	MHz
Saturated output power	-	49	50	-	dBm
Power gain	-	11	12	-	dB
Power-added efficiency	-	45	50	-	%
Power-gain flatness	-	-	-	1.5	dB

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Pinch-off voltage [1]	-	-4	-	-2	V
Reverse gate current [2]	-	-	-	0.01	A

[1] VDS = 6 V; IDS ≤ 80 mA

[2] VDS = 0 V; VGS = -10 V

Absolute limits

Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	-	-	-	50	V
Minimum gate bias	-	-5	-	-	V
Storage temperature	-	-65	-	175	°C
Maximum channel temperature	-	-	-	200	°C

Package outline dimensions

Parameter	Value	Unit
Package outline dimensions	24 × 15.9 × 4.4	mm
Terminal span	17.4	mm

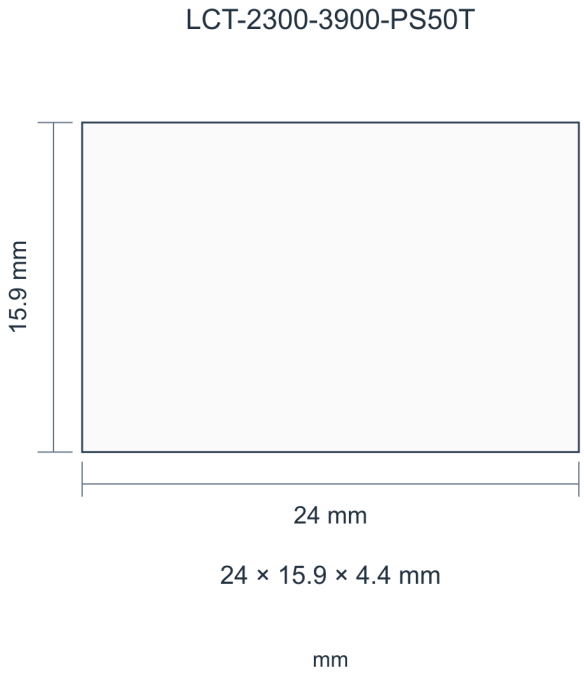
Current publication record · 1.6 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.5.

Integration notes

GF136GD Apply gate bias before drain bias. Remove drain bias before gate bias. Vg: C = 10 µF The RF ports require external DC-blocking capacitors. Vg: 1, 3 RFin: 2 Vd: 4, 6 RFout: 5

Mechanical Outline

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

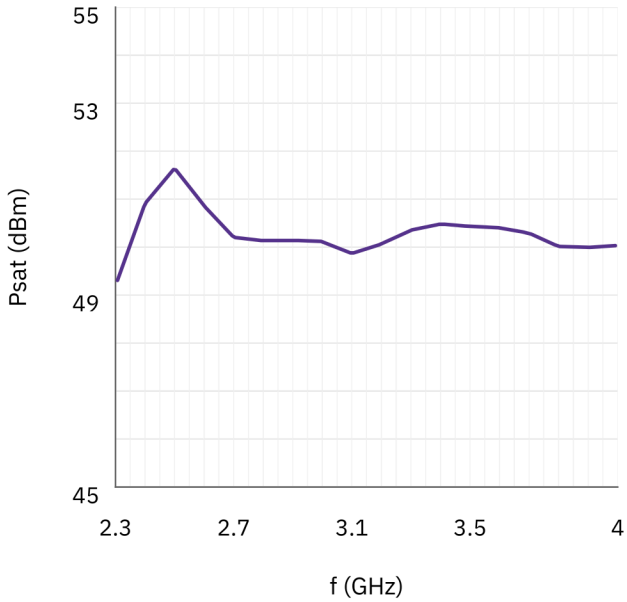


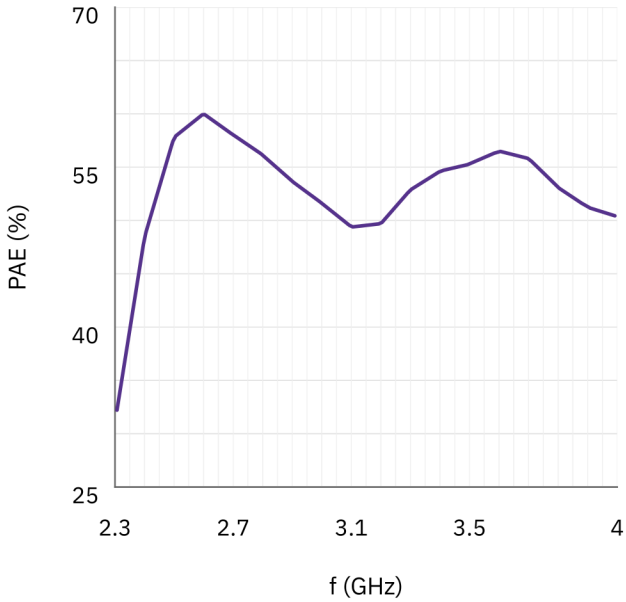
Performance curves

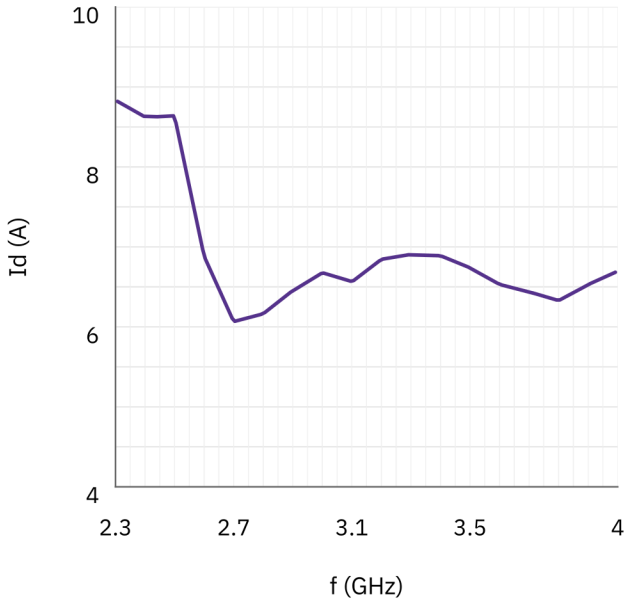
Each performance plot applies to its stated operating conditions.

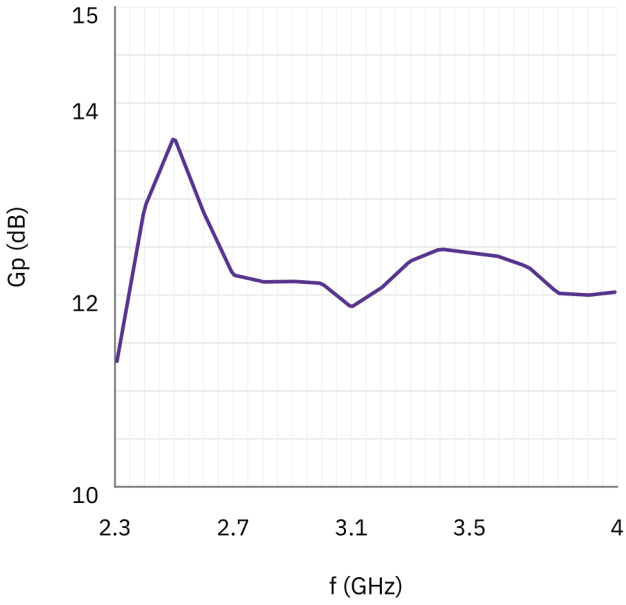
Continuous wave (CW) — Saturated output power; Power-added efficiency; Dynamic drain current; Power gain.

Figure notes: Vd=+28V; Vg=-3.3V; Pin=38dBm. Readings are approximate.









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.