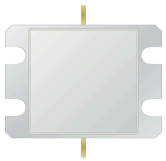
2700–3900 MHz GaN Internally Matched Power Transistor — PSAT 48.5 dBm (typical)

LCT-2700-3900-PS48p5T · 2700–3900 MHz · GaN Internally Matched Power Transistor.



The RF table specifies: PSAT 48.5 dBm (typical); Power gain 12.5 dB (typical); PAE 50 % (typical). RF test conditions: TA = +25 °C; VDS = 24–28 V; VGS ∈ [-4, -2] V; IDS = (0.2–0.5) IDSS.

CMW025B

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

The RF ports require external DC-blocking capacitors.

Package outline dimensions: 24.2 × 17.4 mm.

RF characteristics

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

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	2700	-	3900	MHz
Saturated output power	-	48	48.5	-	dBm
Power gain	-	12	12.5	-	dB
Power-added efficiency	-	45	50	-	%
Power-gain flatness	-	-	-	1.5	dB

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Pinch-off voltage	-	-4	-	-2	VDS = 6 V; IDS ≤ 80 mA	V
Reverse gate current	-	-	-	0.01	VDS = 0 V; VGS = -10 V	A
Drain operating voltage	-	-	-	-	24–28	V
Gate operating voltage	-	-	-	-	[-4, -2]	V

Absolute limits

Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	-	-	-	60	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	24.2 × 17.4	mm
Package outline dimensions (H)	-	mm

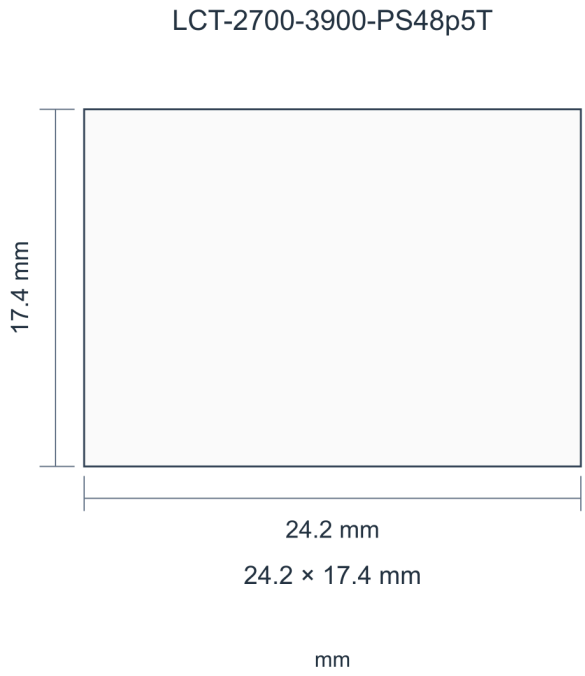
Current publication record · 1.6 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.5.

Integration notes

CMW025B Apply gate bias before drain bias. Remove drain bias before gate bias. The RF ports require external DC-blocking capacitors. G: RF input D: RF output S: Source / ground

Mechanical Outline

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

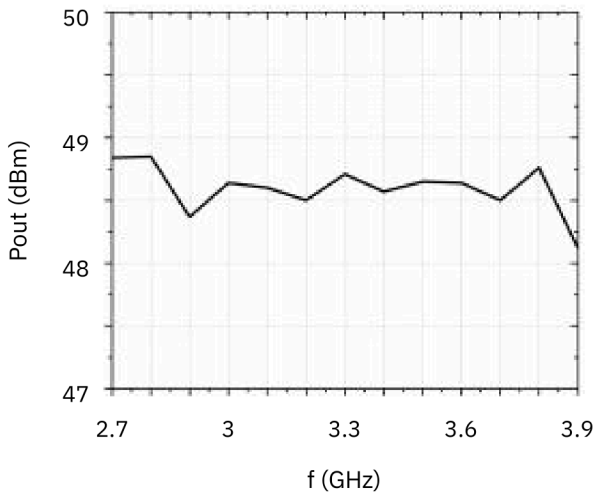


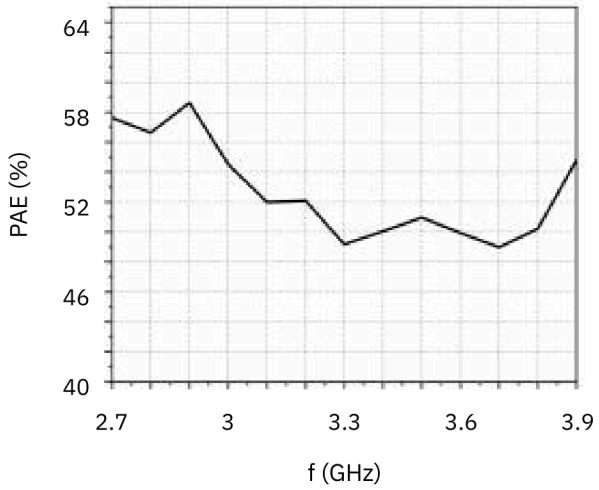
Performance curves

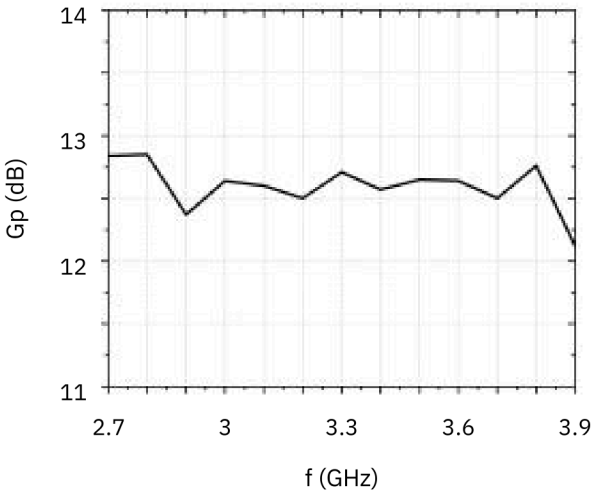
Each performance plot applies to its stated operating conditions.

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

Figure notes: Vd=+24V; Vg=-3.1V; Pin=36dBm.







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.