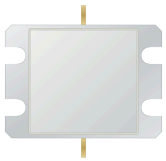
5300–5900 MHz GaN Internally Matched Power Transistor — PSAT 56.5 dBm (typical)

LCT-5300-5900-PS56p5T · 5300–5900 MHz · GaN Internally Matched Power Transistor.



The RF table specifies: PSAT 56.5 dBm (typical); Power gain 12.5 dB (typical); PAE 45 % (typical). RF test conditions: TA = +25 °C; VDS = 40 V; VGS ∈ [-4, -2] V; IDS = (0.2–0.5) IDSS; PW = 10 µs; D = 1%.

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 = 40 V; VGS ∈ [-4, -2] V; IDS = (0.2–0.5) IDSS; PW = 10 µs; D = 1%

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	5300	-	5900	MHz
Saturated output power	-	56	56.5	-	dBm
Power gain	-	12	12.5	-	dB
Power-added efficiency	-	40	45	-	%
Power-gain flatness	-	-	-	1.5	dB

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain operating voltage	-	-	-	-	40	V
Gate operating voltage	-	-	-	-	[-4, -2]	V
Pinch-off voltage	-	-4	-	-2	VDS = 6 V; IDS ≤ 80 mA	V
Reverse gate current	-	-	-	0.01	VDS = 0 V; VGS = -10 V	A

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 input power	-	-	-	46	dBm

Absolute limits

Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating temperature	-	-	-	200	°C

Package outline dimensions

Parameter	Value	Unit
Package outline dimensions	24.2 × 17.4	mm
Package outline dimensions (H)	-	mm

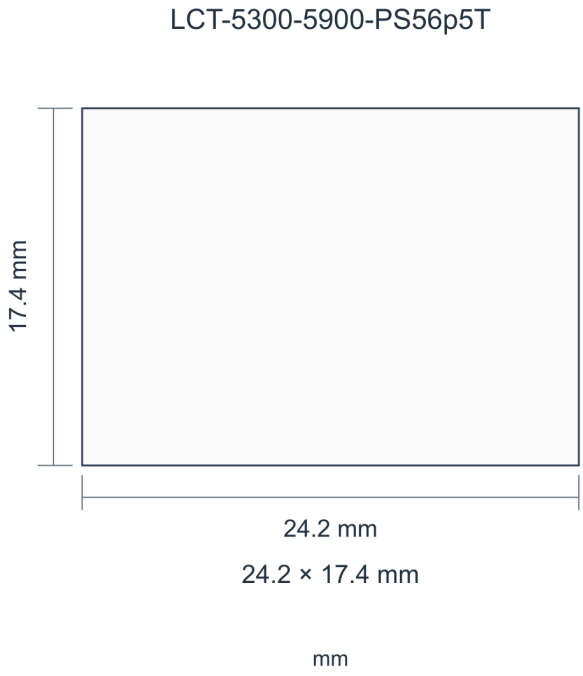
Current publication record · 1.6 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.5.

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.

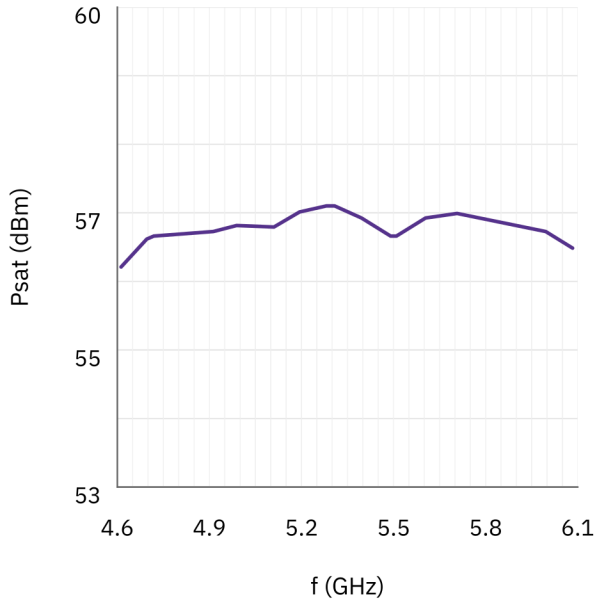


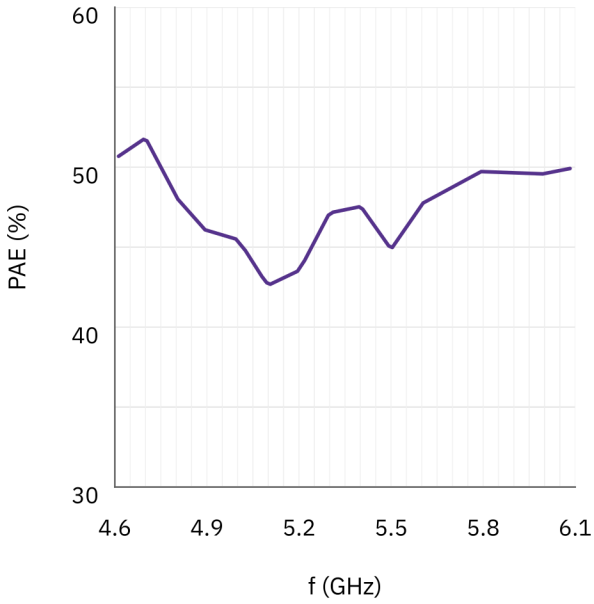
Performance curves

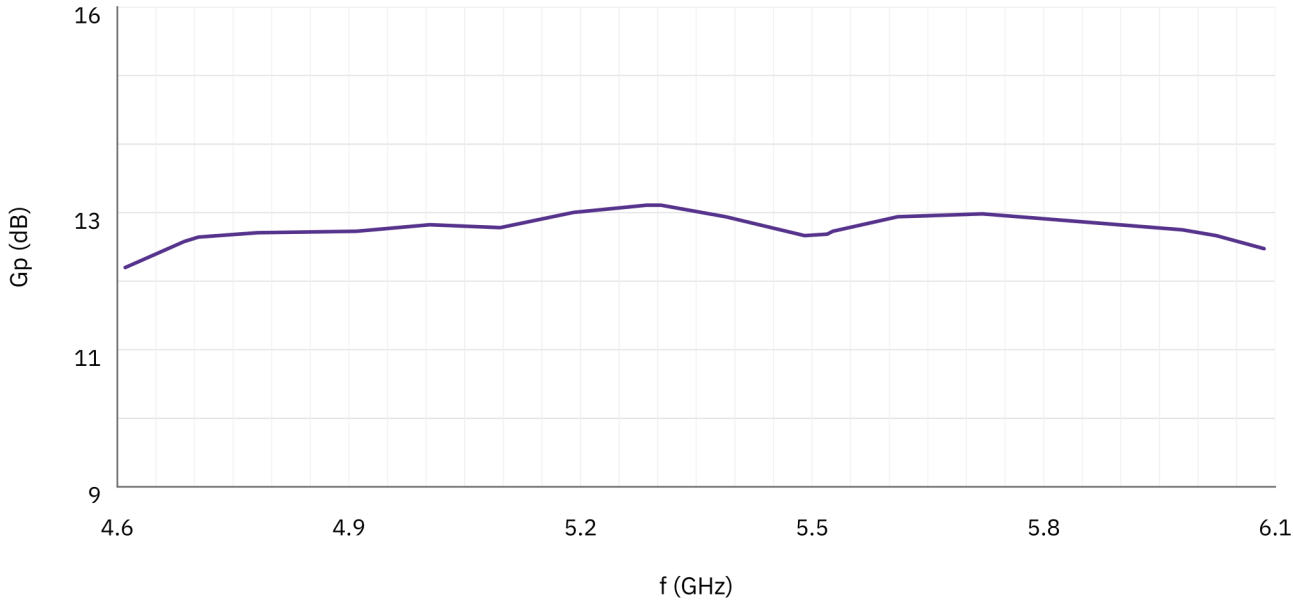
Each performance plot applies to its stated operating conditions.

Output power; Power-added efficiency; Power gain.

Figure notes: Vd=+40V; Vg=-3.1V; Pin=44dBm. Readings are approximate. Duty cycle = 1%.







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.