2700–3900 MHz GaAs MMIC Power Amplifier Die

LCI-PA-2700-3900-PS34p5T is a GaAs MMIC power amplifier supplied as bare die for 2700–3900 MHz. It supports CW and pulsed operation.

pulsed: PSAT: 34 dBm (minimum) / 34.5 dBm (typical); Power gain: 29 dB (minimum) / 29.5 dB (typical); PAE: 47 % (minimum) / 49 % (typical). Plan-view die dimensions: 2.2 × 3.092 mm.



RF characteristics

TA = +25 °C; Vd = +8 V; Vg = -0.7 V; Pin = 5 dBm; τ = 100 µs; D = 10%; pulsed

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	2700	-	3900	MHz
Saturated output power	Psat	34	34.5	-	dBm
Power gain	Gp	29	29.5	-	dB
Power-gain flatness	ΔGp	-	-	1	dB
Power-added efficiency	PAE	47	49	-	%
Small-signal gain	S21	32	33	34	dB
Small-signal gain flatness	ΔS21	-	-	±1	dB
Input VSWR	VSWR(in)	-	1.8	2	-

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain voltage	Vd	-	8	-	-	V
Gate voltage	Vg	-	-0.7	-	-	V
Quiescent drain current	Id	-	-	-	0.5 (Vd = +8 V; Adjustable; the source assigns no minimum, typical or maximum qualifier.)	A

Absolute limits

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	Vd	-	-	8	V
Minimum gate bias	Vg	-1	-	-	V
Maximum input power	Pin	-	-	8	dBm
Storage temperature	TSTG	-65	-	150	°C
Maximum channel temperature	Top	-	-	175	°C

Die dimensions

Parameter	Value	Unit
Plan-view die dimensions	2.2 × 3.092	mm

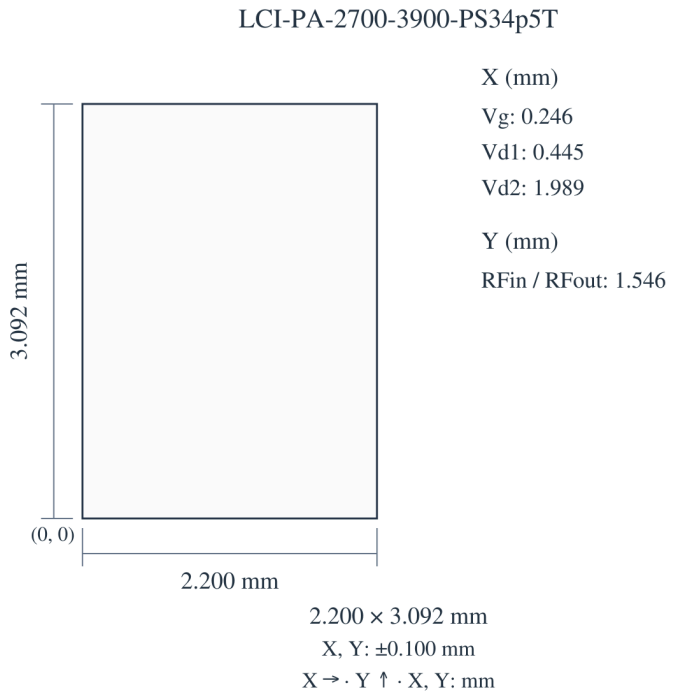
Current publication record · 1.7 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.6.

Die integration and bias sequencing

Internally connected gate pads: Vg ↔ Vg. Integrated DC blocking: RFin / RFout. DC path to ground: RFin / RFout → GND. Separate characterization: TA = +25 °C; Vd = +8 V; Vg = -0.7 V; Pin = 5 dBm; CW. Apply gate bias before drain bias. Remove drain bias before gate bias.

Mechanical Outline

Outline and dimensioned coordinates in mm. Use this drawing as a dimensional reference. Fabrication and wire bonding require complete drawings.

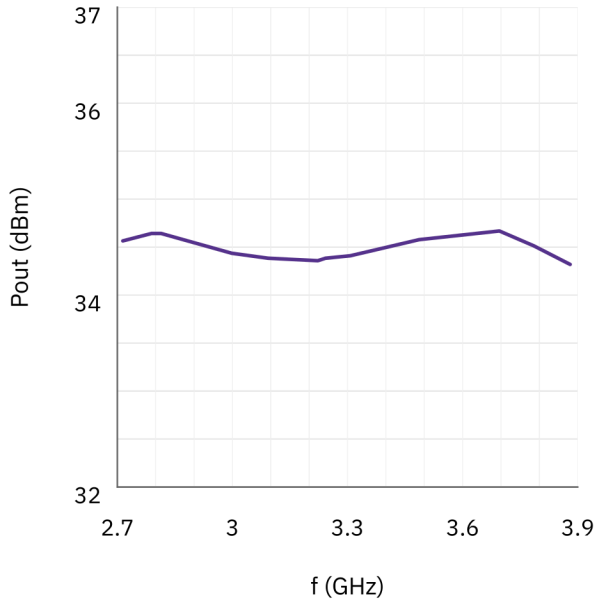


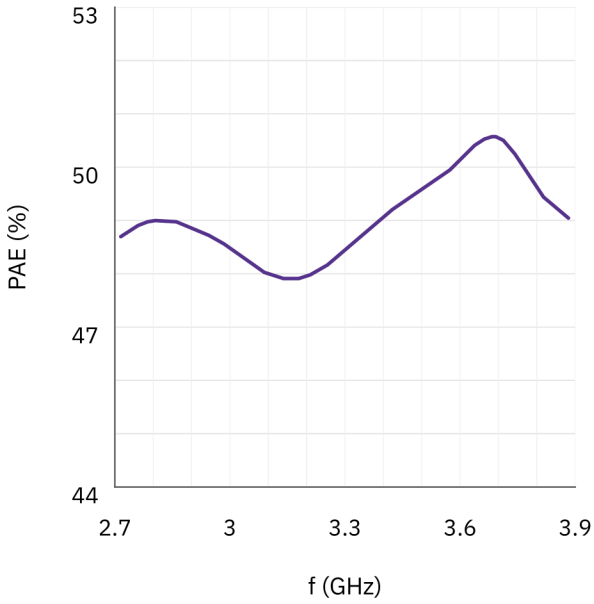
Performance curves

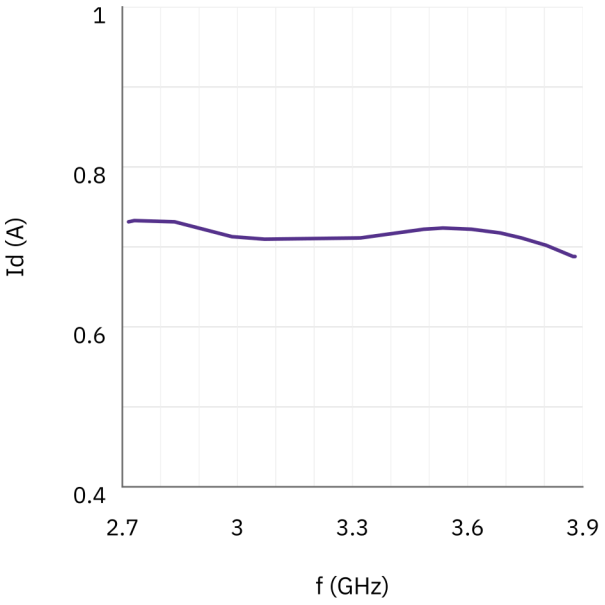
Each performance plot applies to its stated operating conditions.

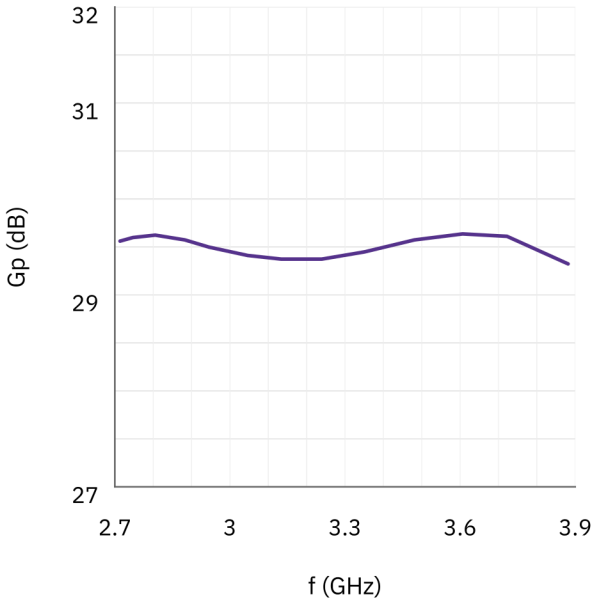
Pulsed — Saturated output power; Dynamic drain current; Power-added efficiency; Power gain.

Figure notes: TA=+25°C; Vd=+8V; Vg=-0.7V; Pin=5dBm. Readings are approximate. Pulse width = 100 µs; duty cycle = 10%.



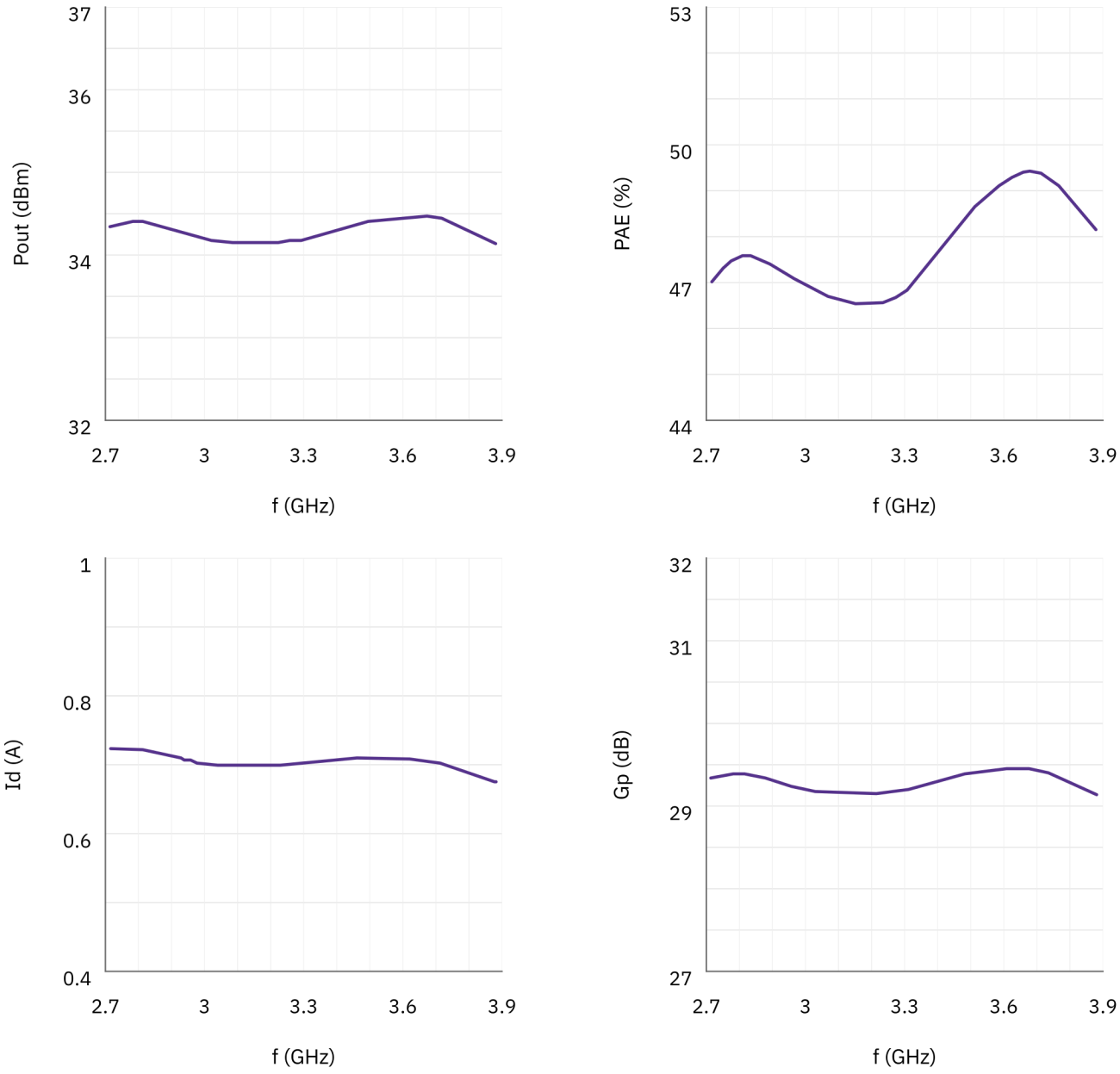






Continuous wave (CW) — Saturated output power; Dynamic drain current; Power-added efficiency; Power gain.

Figure notes: TA=+25°C; Vd=+8V; Vg=-0.7V; Pin=5dBm. 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.