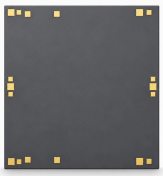
15000–17000 MHz GaN MMIC Power Amplifier Die

LCI-PA-15000-17000-PS45T-PG21T is a GaN MMIC power amplifier supplied as bare die for 15000–17000 MHz. It supports CW and pulsed operation.

PSAT: 45 dBm (typical); Power gain: 21 dB (typical); PAE: 37 % (typical). Die dimensions: 3.45 × 3.95 × 0.1 mm.



RF characteristics

TA = +25 °C; Vd = +28 V; Vg = -2.8 V

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	15000	-	17000	MHz
Saturated output power	Psat	-	45	-	dBm
Power gain	Gp	-	21	-	dB
Power-gain flatness	ΔGp	-	-	±0.5	dB
Power-added efficiency	PAE	-	37	-	%
Input VSWR	VSWR(in)	-	-	2	-

DC bias and current

TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Drain voltage	Vd	-	28	32	V
Gate voltage	Vg	-3.2	-2.8	-2.6	V
Quiescent drain current	Id	-	0.6	-	A
Dynamic drain current	Idd	-	3.2	-	A
Dynamic gate current	Igg	-	1	5	mA

Absolute limits

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	Vd	-	-	32	V
Minimum gate bias	Vg	-5	-	-	V
Maximum input power	Pin	-	-	28	dBm
Storage temperature	TSTG	-65	-	150	°C
Maximum channel temperature	Top	-	-	225	°C

Die dimensions

Parameter	Value	Unit
Die dimensions	3.45 × 3.95 × 0.1	mm

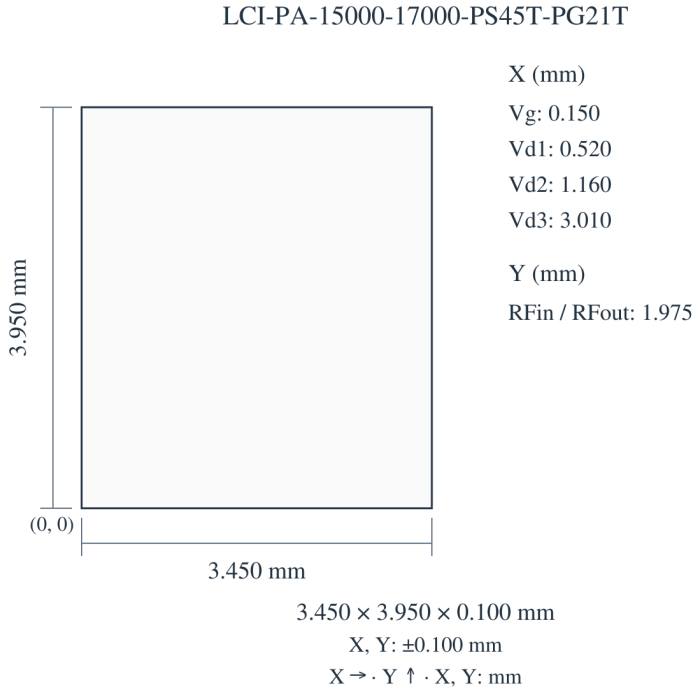
Current publication record · 1.7 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.6.

Die integration and bias sequencing

Integrated DC blocking: RFin / RFout. DC path to ground: RFin → GND. 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.

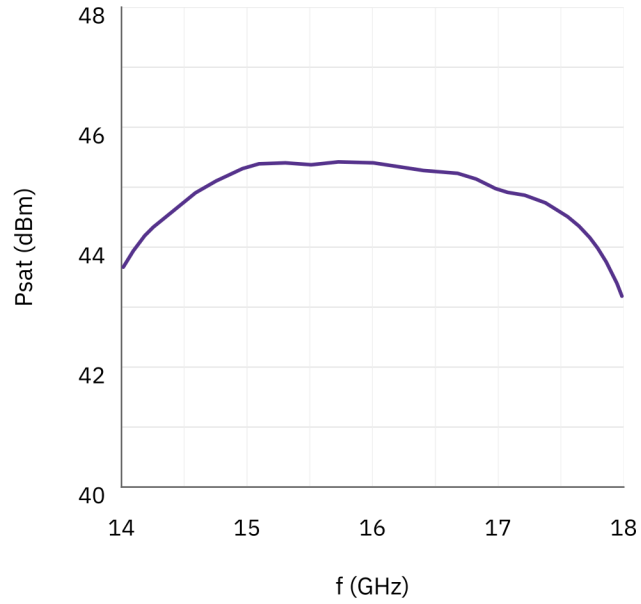


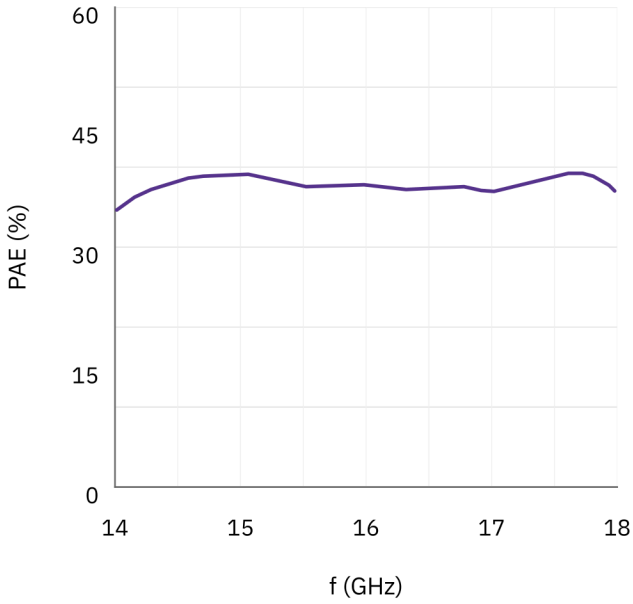
Performance curves

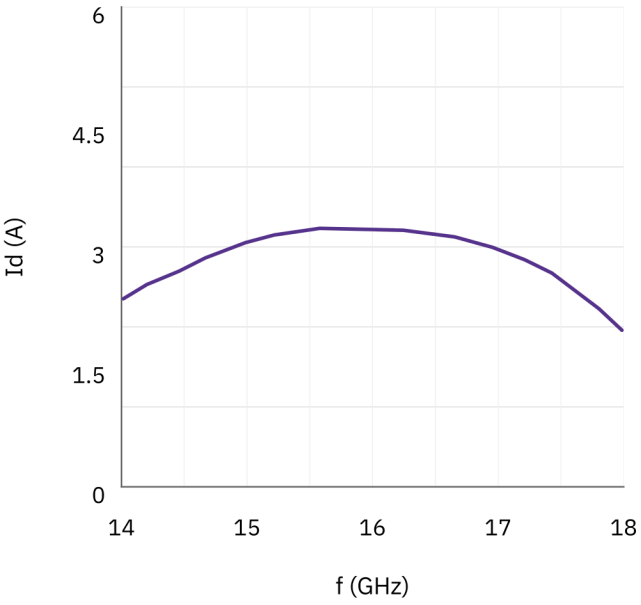
Each performance plot applies to its stated operating conditions.

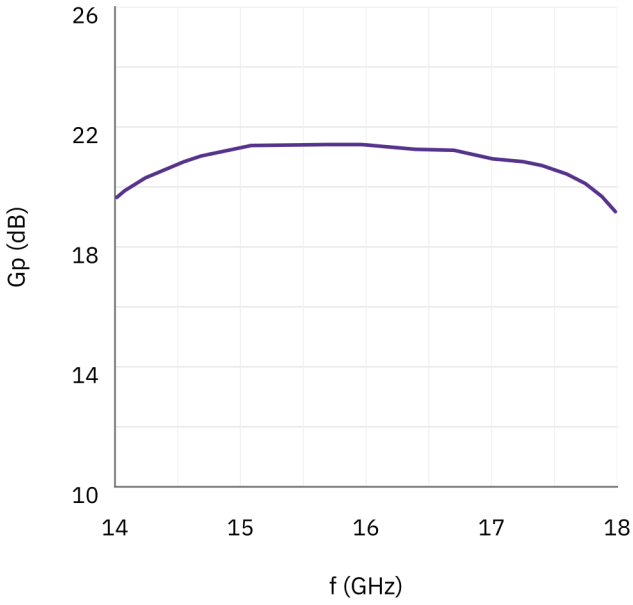
Pulsed — Saturated output power; Power-added efficiency; Dynamic drain current; Power gain.

Figure notes: TA = +25°C; Vd=+28V; Vg=-2.8V. Pin = 24 dBm. Pulse width = 100 µs; duty cycle = 10%. Readings are approximate.



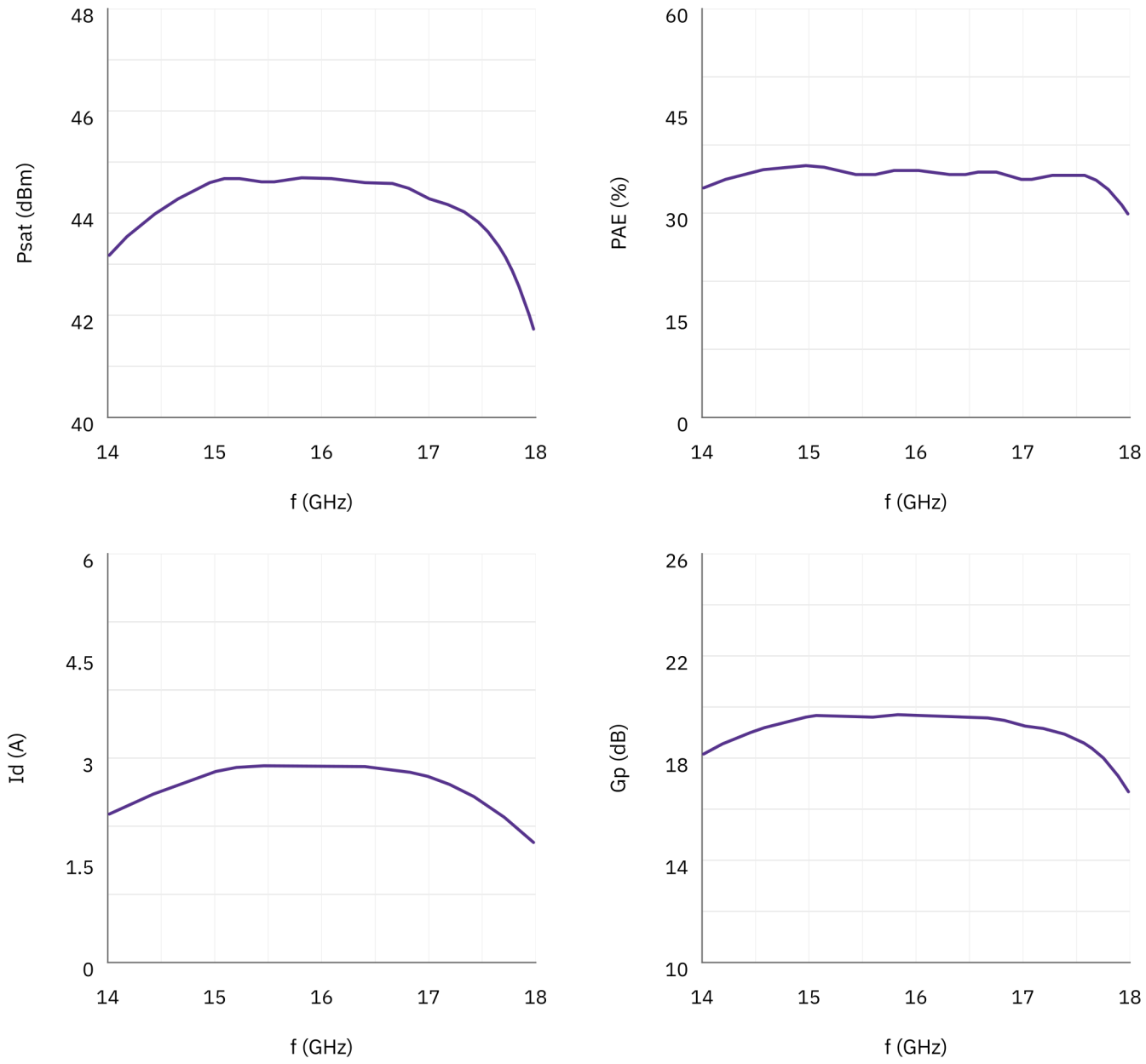






Continuous wave (CW) — Saturated output power; Power-added efficiency; Dynamic drain current; Power gain.

Figure notes: TA = +25°C; Vd=+28V; Vg=-2.8V. Pin = 25 dBm. 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.