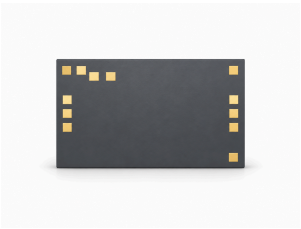
15000–18000 MHz GaN MMIC Power Amplifier Die

LCI-PA-15000-18000-PS38T is a GaN MMIC power amplifier supplied as bare die for 15000–18000 MHz. It supports CW and pulsed operation.

pulsed: PSAT: 38 dBm (typical); Power gain: 20 dB (typical); PAE: 40 % (typical). Die dimensions: 2.3 × 1.35 × 0.08 mm.



RF characteristics

TA = +25 °C; Vd = +28 V; Vg = -2.8 V; Pin = 19 dBm; τ = 100 µs; D = 10%; pulsed

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	15000	-	18000	MHz
Saturated output power	Psat	-	38	-	dBm
Power gain	Gp	-	20	-	dB
Power-gain flatness	ΔGp	-	-	±0.35	dB
Power-added efficiency	PAE	-	40	-	%

DC bias and current

TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Drain voltage	Vd	-	28	-	V
Gate voltage	Vg	-3.2	-3	-2.6	V
Quiescent drain current	Id	-	0.05	-	A
Dynamic drain current	Idd	-	0.82	-	A
Dynamic gate current	Igg	-	-	2	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	-	-	23	dBm
Storage temperature	TSTG	-65	-	150	°C
Maximum channel temperature	Top	-	-	200	°C

Die dimensions

Parameter	Value	Unit
Die dimensions	2.3 × 1.35 × 0.08	mm

Current publication record · 1.8 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.7.

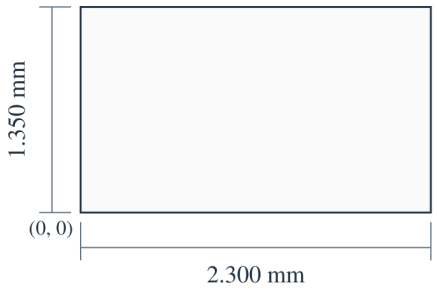
Die integration and bias sequencing

Integrated DC blocking: RFin / RFout. DC path to ground: RFin → GND. Separate characterization: TA = +25 °C; Vd = +28 V; Vg = -3.0 V; Pin = 19 dBm. 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.

LCI-PA-15000-18000-PS38T



X (mm)
Vg: 0.300
Vd1: 0.450
Vd2: 0.660
Vd3 (5/7): 2.140

Y (mm)
RFin / RFout: 0.675

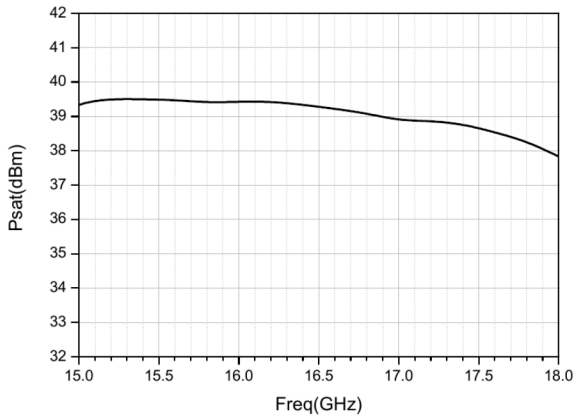
2.300 × 1.350 × 0.080 mm
X, Y: ±0.020 mm
X → · Y ↑ · X, Y: mm

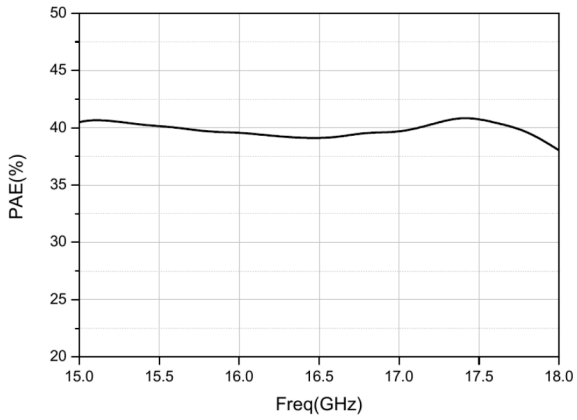
Performance curves

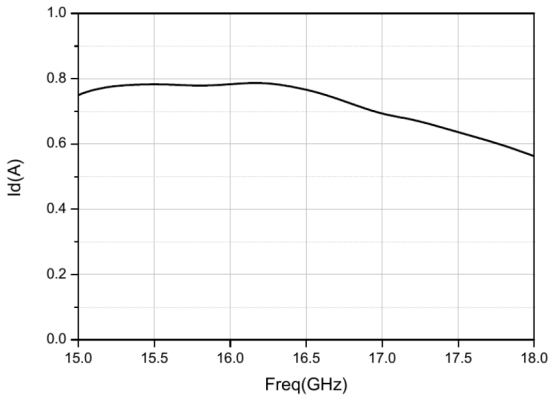
Each performance plot applies to its stated operating conditions.

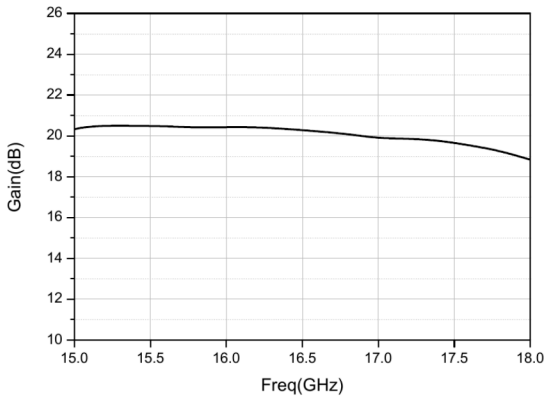
Pulsed and CW characteristics.

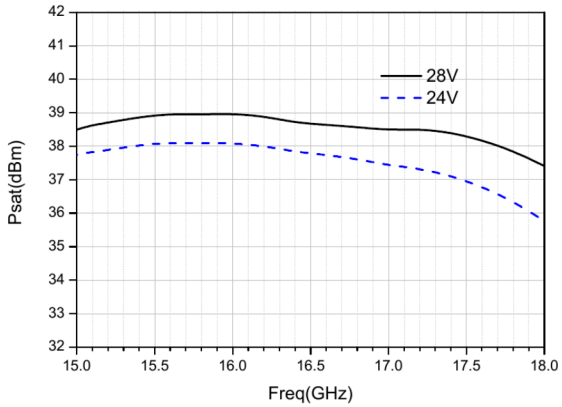
Figure notes: (1–4): TA = +25 °C; Vd = 28 V; Vg = −3 V; Pin = 19 dBm. (5–6): CW; Vd = 28 / 24 V. Conditions apply to the indicated plots and their own legends.

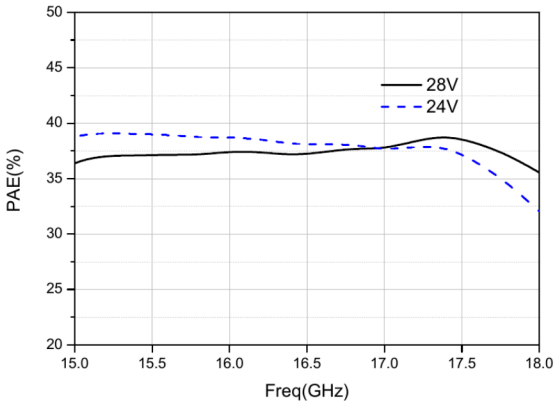












Document notice

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.