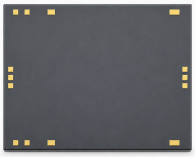
18000–26500 MHz GaN MMIC Power Amplifier Die

LCI-PA-18000-26500-PS41T is a GaN MMIC power amplifier supplied as bare die for 18000–26500 MHz. It supports CW and pulsed operation.

PSAT: 41 dBm (typical); PAE: 26 % (typical); Power gain: 19 dB (typical). Die dimensions: 4.1 × 3.2 × 0.08 mm.



RF characteristics

TA = +25 °C; Vd = +22 V; Id = 0.9 A

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	18000	-	26500	MHz
Small-signal gain	S21	-	25	-	dB
Small-signal gain flatness	ΔS21	-	±0.4	-	dB
Saturated output power	Psat	-	41	-	dBm
Power-added efficiency	PAE	-	26	-	%
Power gain	Gp	-	19	-	dB
Input VSWR	VSWR(in)	-	1.5	-	-
Output VSWR	-	-	1.5	-	-
Saturation current	-	-	2.8	-	A

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain voltage [1]	Vd	-	-	-	22	V
Gate voltage [1]	Vg	-	-	-	-2.1	V
Bias current [2]	-	-	-	-	0.9	A

[1] Value stated without a Min/Typ/Max qualification.

[2] Vd = +22 V; Vg = -2.1 V; Value stated without a Min/Typ/Max qualification.

Absolute limits

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	Vd	-	-	24	V
Minimum gate bias	Vg	-5	-	-	V
Maximum input power	Pin	-	-	27	dBm
Storage temperature	TSTG	-65	-	150	°C

Environmental specifications

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating temperature	-	-55	-	85	°C

Die dimensions

Parameter	Value	Unit
Die dimensions	4.1 × 3.2 × 0.08	mm

Current publication record · 1.10 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.9.

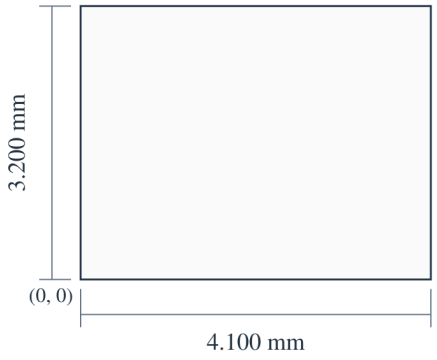
Die integration and bias sequencing

Separate characterization: TA = +25 °C; Vd = +22 V; Id = 0.9 A; τ = 100 µs; D = 10%. 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-18000-26500-PS41T



X (mm)
(3/4): 0.500
(5/6): 1.030
(7/8): 3.740

Y (mm)
RFin / RFout: 1.600

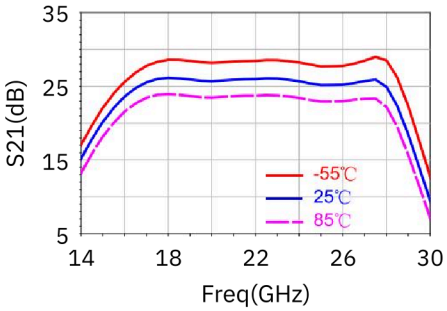
4.100 × 3.200 × 0.080 mm
X, Y: ±0.050 mm
X → · Y ↑ · X, Y: mm

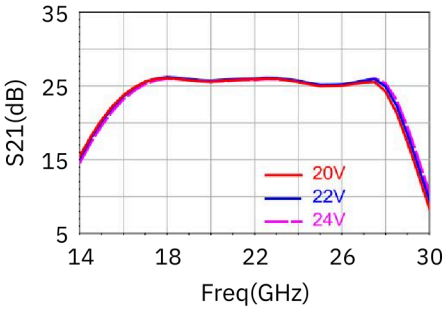
Performance curves

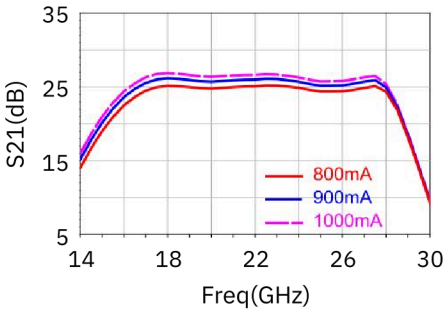
Each performance plot applies to its stated operating conditions.

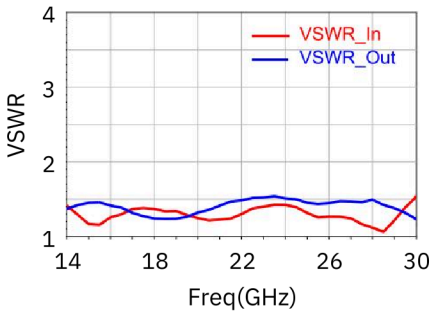
Pulsed — Small-signal gain; Input matching; Output matching; Output power.

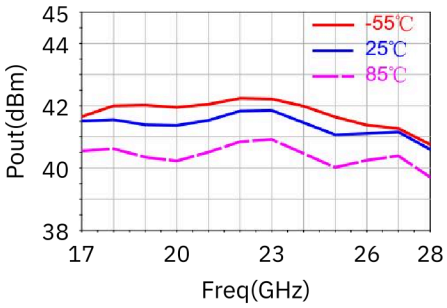
Figure notes: TA = +25 °C; Vd = 22 V; Id = 900 mA; τ = 100 µs; D = 10%. Read each trace with the conditions shown in its plot. Pout: Pin = 22 dBm. Conditions apply to the indicated plots and their own legends.

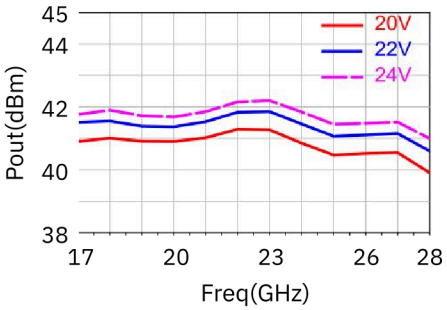






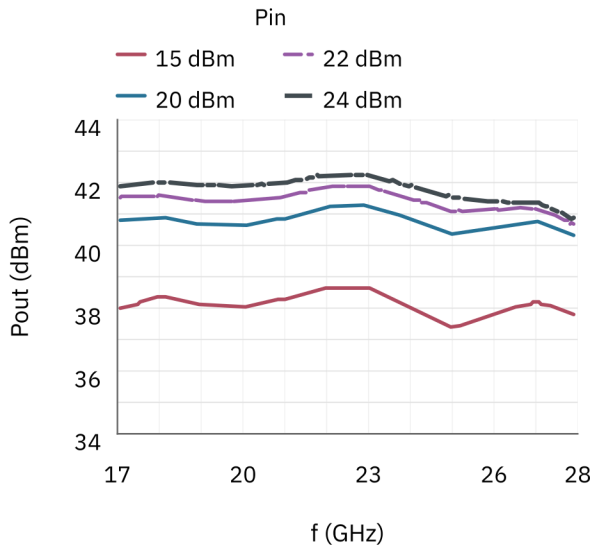


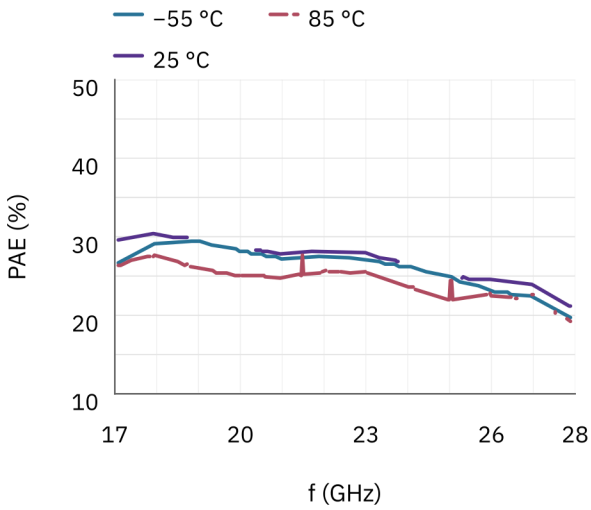




Pulsed — Output power; Power-added efficiency.

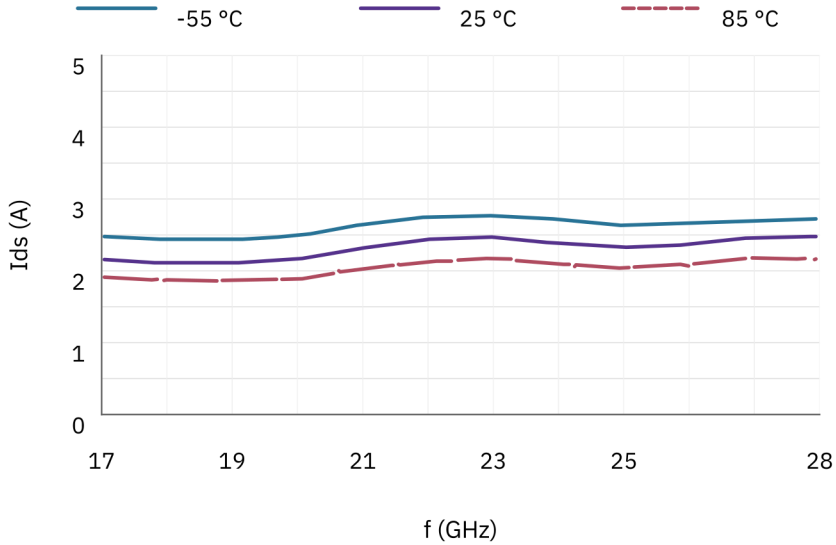
Figure notes: TA = +25 °C; Vd = 22 V; Id = 900 mA; τ = 100 µs; D = 10%. Read each trace with the conditions shown in its plot. Readings are approximate. Pout: Pin = 15 / 20 / 22 / 24 dBm; TA = +25 °C. PAE: Pin = 22 dBm; T = −55 / +25 / +85 °C. Drain current Id is 900 mA. Idq is unspecified for this plot.





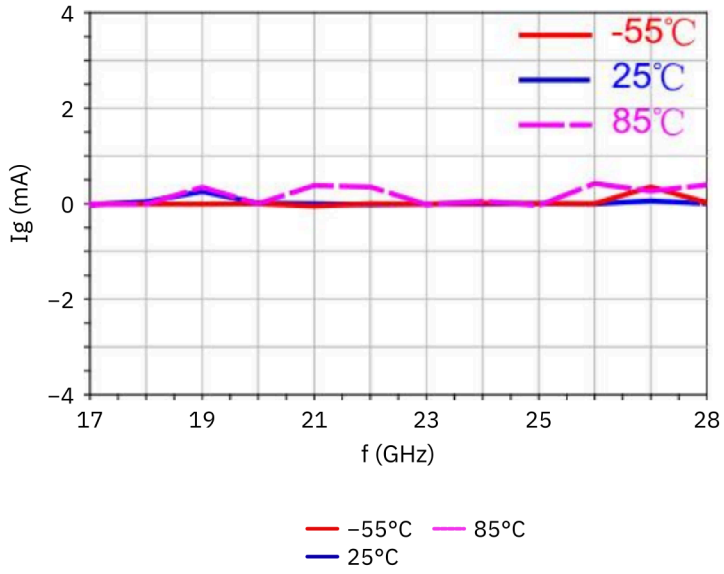
Pulsed — Drain current.

Pin = 22 dBm. Figure notes: TA = +25 °C; Vd = 22 V; Id = 900 mA; τ = 100 µs; D = 10%. Read each trace with the conditions shown in its plot. Readings are approximate.



Pulsed — Gate current.

Pin = 22 dBm. Figure notes: TA = +25 °C; Vd = 22 V; Id = 900 mA; τ = 100 µs; D = 10%.
Read each trace with the conditions shown in its plot.



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.