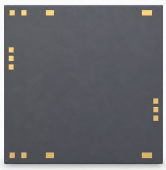
26000–40000 MHz GaN MMIC Power Amplifier Die

LCI-PA-26000-40000-PS40p5T is a GaN MMIC power amplifier supplied as bare die for 26000–40000 MHz. It supports CW and pulsed operation.

Power gain: 15 dB (typical); PSAT: 40.5 dBm (typical); PAE: 23 % (typical). Die dimensions: 3.4 × 3.4 × 0.08 mm.



RF characteristics

TA = +25 °C; Vd = +22 V; Id = 0.8 A

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	26000	-	40000	MHz
Small-signal gain	S21	-	22	-	dB
Power gain	Gp	-	15	-	dB
Power-gain flatness	ΔGp	-	±0.5	-	dB
Saturated output power	Psat	-	40.5	-	dBm
Power-added efficiency	PAE	-	23	-	%
Input VSWR	VSWR(in)	-	1.4	-	-
Output VSWR	-	-	1.4	-	-
Saturation current	-	-	-	2.6	A
Thermal resistance	-	-	2	-	°C/W

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain voltage [1]	Vd	-	-	-	22	V
Gate voltage [1]	Vg	-	-	-	-1.9	V
Bias current [2]	-	-	-	-	0.8	A

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

[2] Vd = +22 V; Vg = -1.9 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	-	-	30	dBm
Storage temperature	TSTG	-65	-	150	°C

Absolute limits

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum channel temperature	Top	-	-	200	°C

Environmental specifications

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

Die dimensions

Parameter	Value	Unit
Die dimensions	3.4 × 3.4 × 0.08	mm

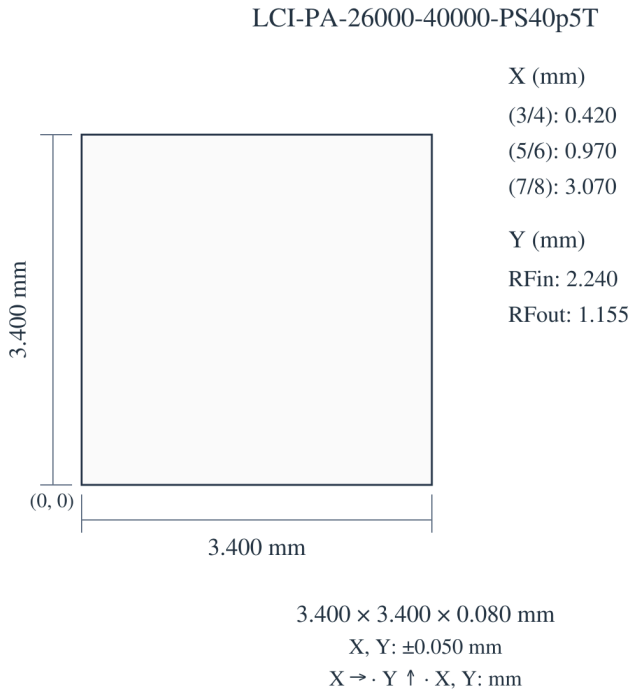
Current publication record · 1.8 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.7.

Die integration and bias sequencing

Separate characterization: TA = +25 °C; Vd = +22 V; Id = 0.8 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.

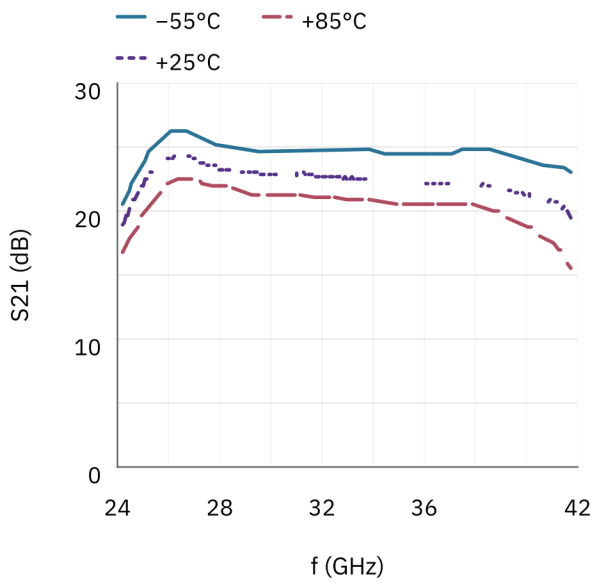


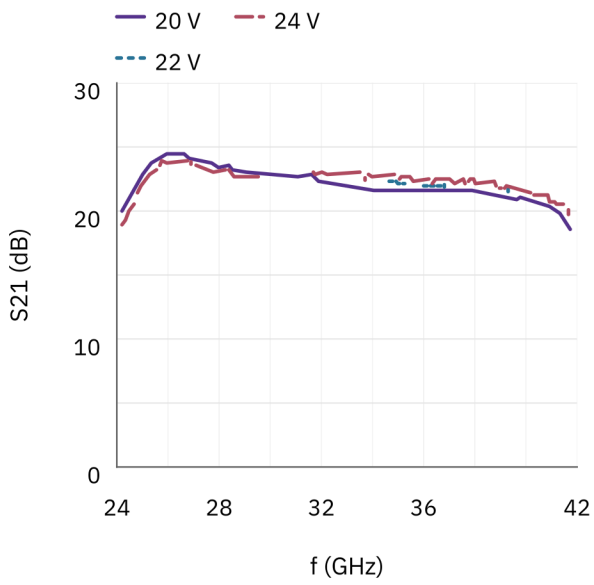
Performance curves

Each performance plot applies to its stated operating conditions.

Pulsed — Small-signal gain.

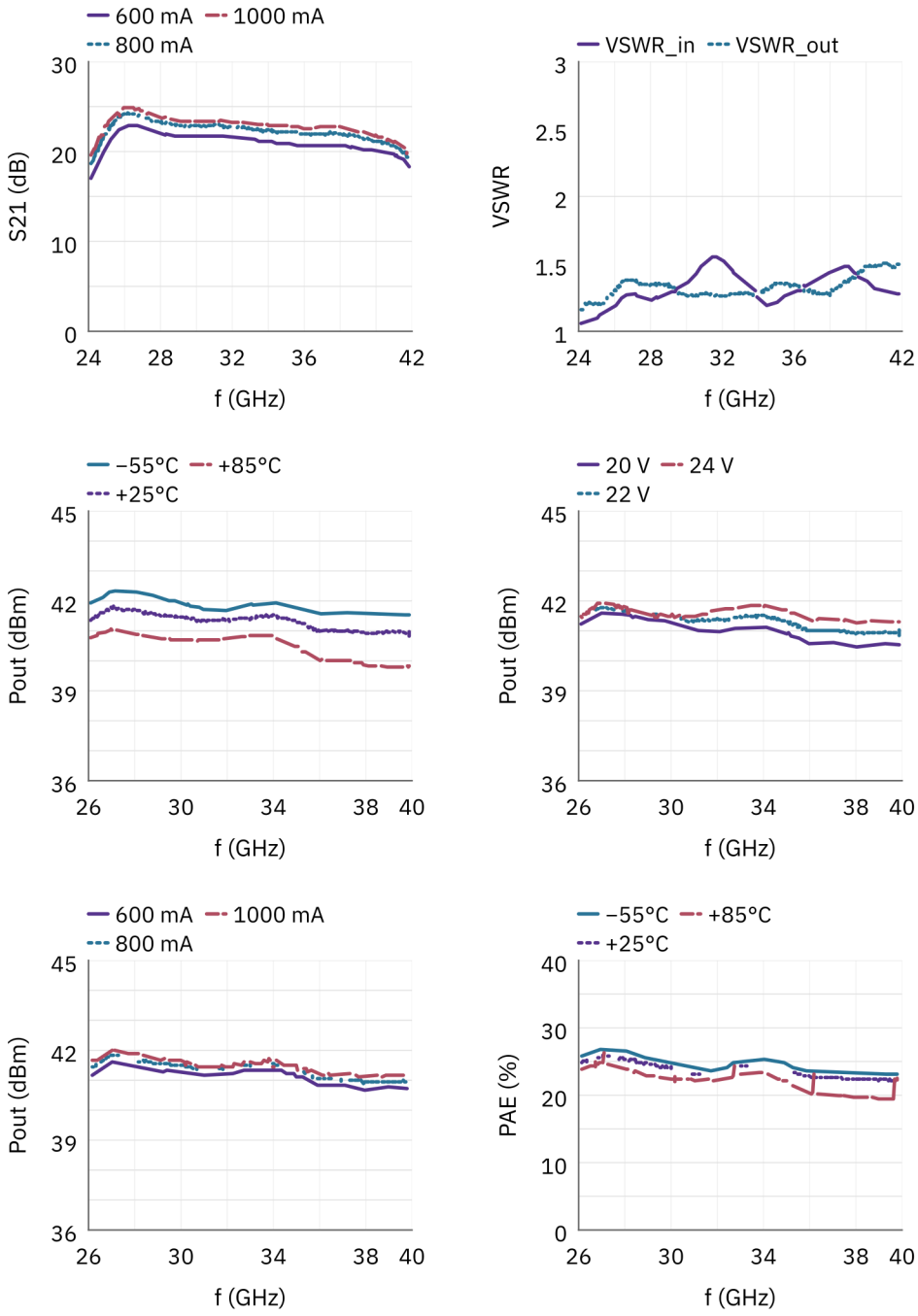
Figure notes: TA=+25°C; Vd=22V; Id=800mA. Readings are approximate. Pulse width = 100 µs; duty cycle = 10%. Use the operating conditions in each trace's legend.





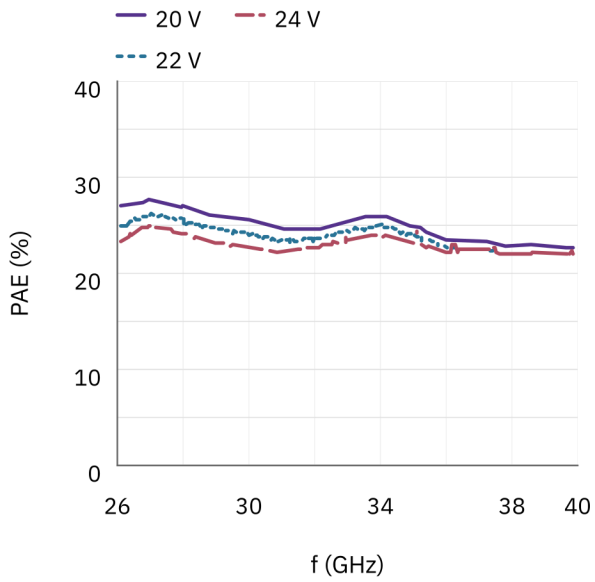
Pulsed — Small-signal gain; Input matching; Output matching; Output power; Power-added efficiency.

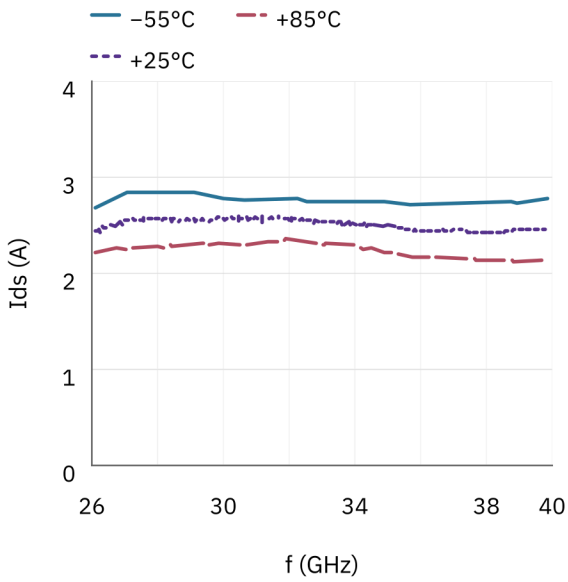
Figure notes: TA=+25°C; Vd=22V; Id=800mA. Readings are approximate. Pulse width = 100 µs; duty cycle = 10%. Pout / PAE: Pin = 26 dBm. Use the operating conditions in each trace's legend.

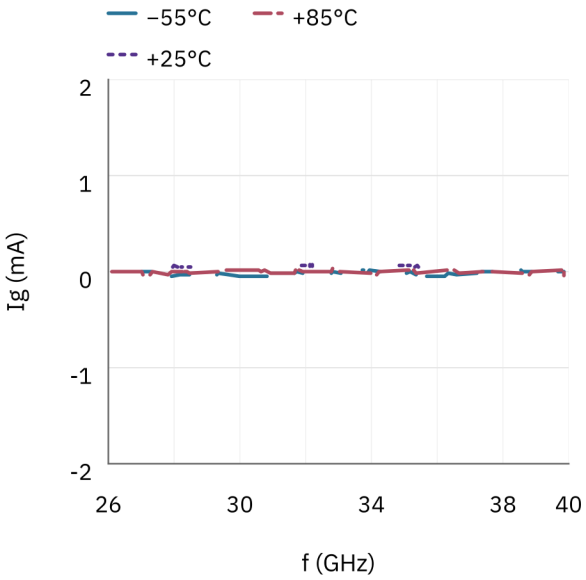


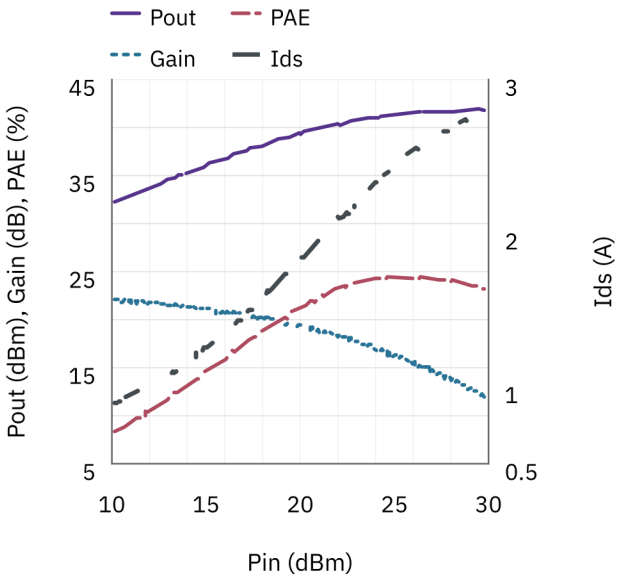
Pulsed — Output power; Power-added efficiency; Drain current; Power gain; Gate current.

Figure notes: TA=+25°C; Vd=22V; Id=800mA. Readings are approximate. Pulse width = 100 µs; duty cycle = 10%. PAE / Ids / Ig: Pin = 26 dBm. Use the operating conditions in each trace's legend. f = 33 GHz; Pin = 10–30 dBm. The fixed Pin applies only to the named frequency plots, not to the variable-Pin sweep.









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.