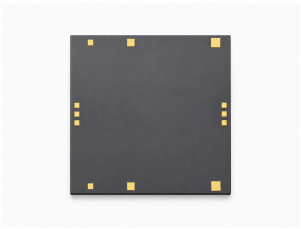
31000–37000 MHz MMIC Power Amplifier Die

LCI-PA-31000-37000-PS41T is a MMIC power amplifier supplied as bare die for 31000–37000 MHz. It supports pulsed operation.

PSAT: 41 dBm (typical); PAE: 26 % (typical); Small-signal gain: 21 dB (typical). Die dimensions: 3.6 × 3.6 × 0.08 mm.



RF characteristics

TA = +25 °C; Vd = +22 V; Id = 1 A

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	31000	-	37000	MHz
Small-signal gain	S21	-	21	-	dB
Small-signal gain flatness	ΔS21	-	±1	-	dB
Saturated output power	Psat	-	41	-	dBm
Power-added efficiency	PAE	-	26	-	%
Input VSWR	VSWR(in)	-	2.5	-	-
Output VSWR	-	-	1.4	-	-
Saturation current	-	-	2.3	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]	-	-	-	-	1	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	-	-	25	V
Minimum gate bias	Vg	-5	-	-	V
Maximum input power	Pin	-	-	35	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	3.6 × 3.6 × 0.08	mm

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

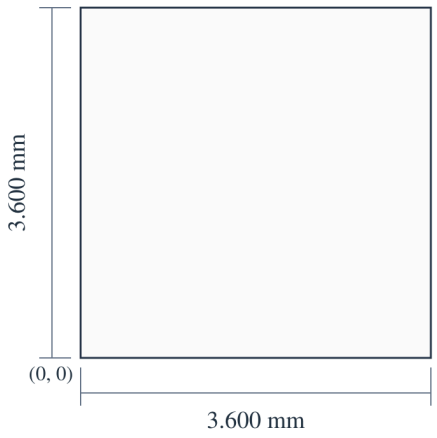
Die integration and bias sequencing

Separate characterization: TA = +25 °C; Vd = +22 V; Id = 1 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-31000-37000-PS41T



X (mm)
(3/4): 0.440
(5/6): 1.350
(7/8): 3.280

Y (mm)
RFin / RFout: 1.800

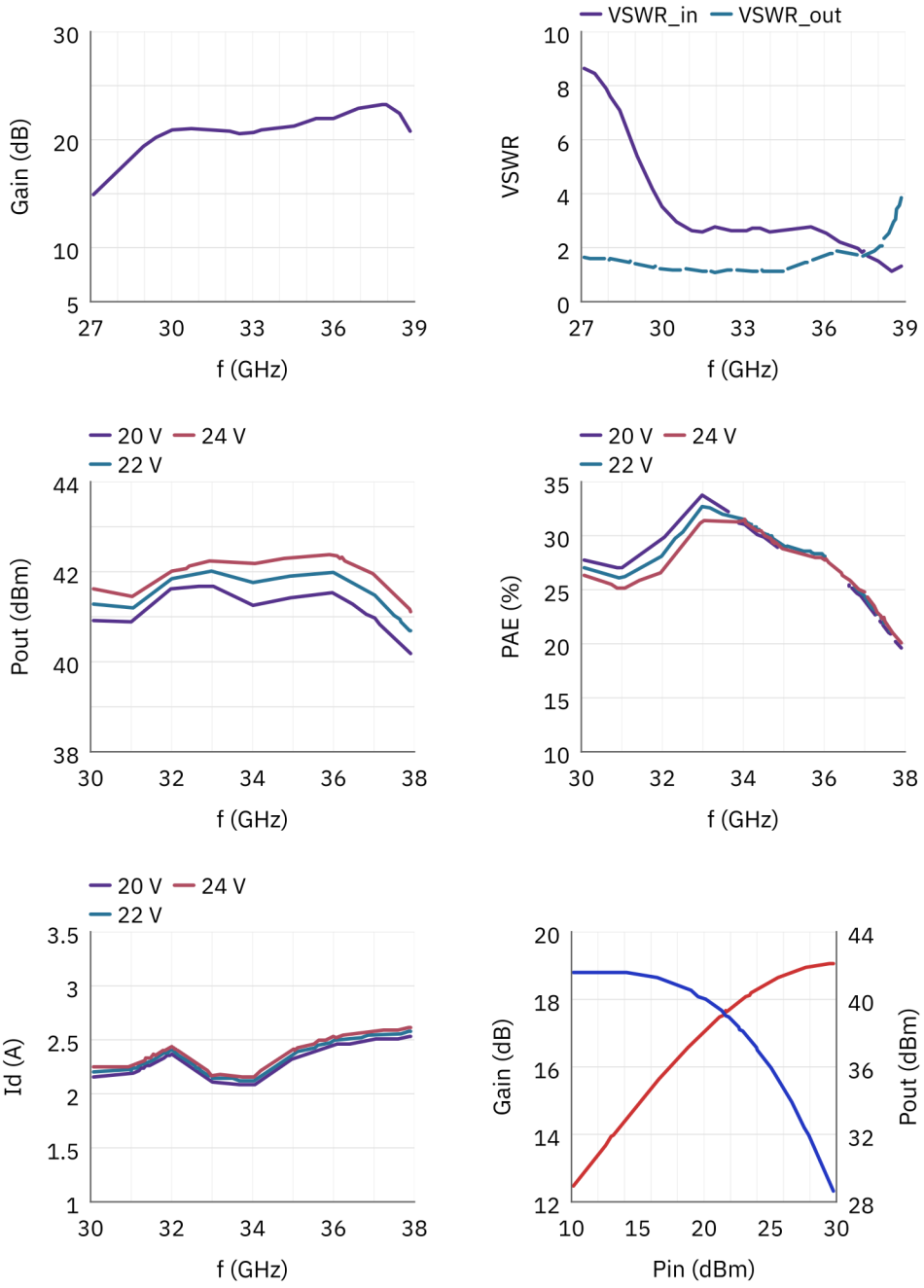
3.600 × 3.600 × 0.080 mm
X, Y: ±0.050 mm
X → · Y ↑ · X, Y: mm

Performance curves

Each performance plot applies to its stated operating conditions.

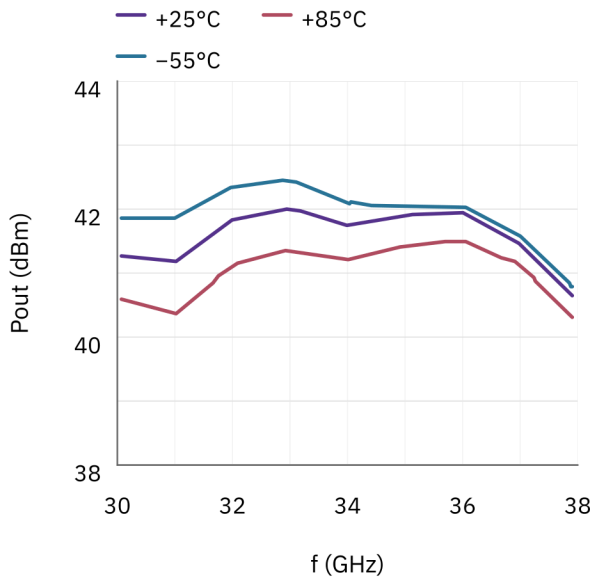
Pulsed — Small-signal gain; Input matching; Output matching; Output power; Power-added efficiency; Drain current.

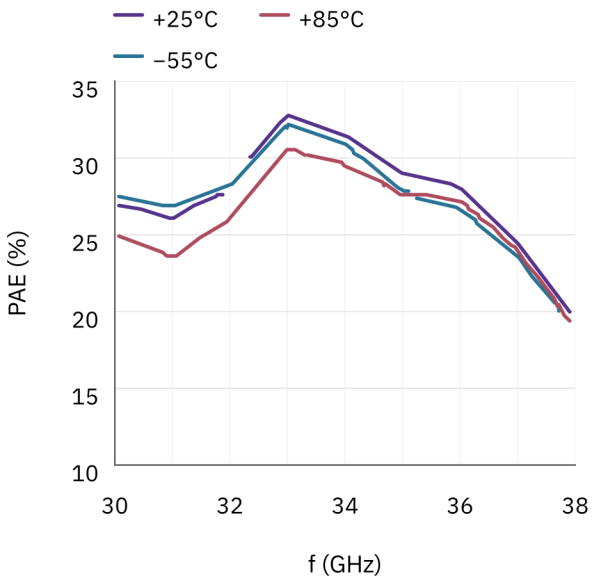
Figure notes: TA=+25°C; Vd=22V; Id=1.0A. Readings are approximate. Pulse width = 100 µs; duty cycle = 10%. Pout / PAE / Id: Pin = 26 dBm. Use the operating conditions in each trace's legend. f = 33 GHz; Pin = 10–30 dBm. The fixed Pin applies only to the named frequency plots, not to the variable-Pin sweep. The last plot gives Gain and Pout axes but no curve-to-axis key. Curve colors have no specified axis assignment. Two axis readings at one trace point describe the same plotted position.

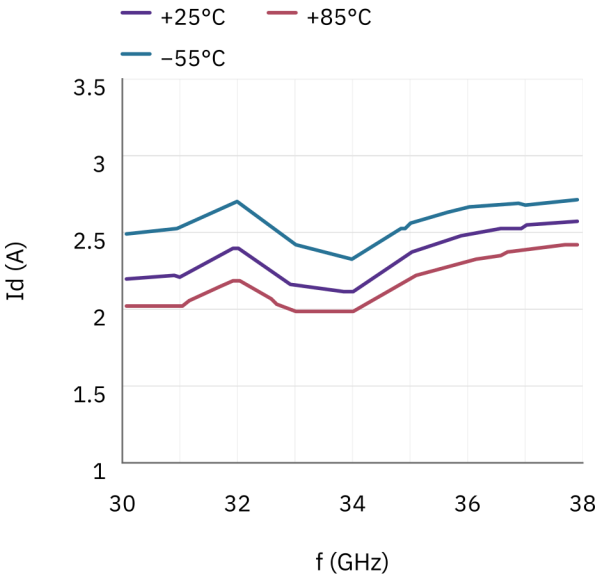


Pulsed — Output power; Power-added efficiency; Drain current.

Figure notes: TA=−55…+85°C; Vd=22V; Id=1.0A. Readings are approximate. Pulse width = 100 µs; duty cycle = 10%. Pout / PAE / Id: Pin = 26 dBm. Use the operating conditions in each trace's legend.







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.