15000–43000 MHz Power Amplifier Die

LCI-PA-15000-43000-PS30T is a power amplifier supplied as bare die for 15000–43000 MHz.

PSAT: 30 dBm (typical); PAE: 18 % (typical); Small-signal gain: 18 dB (minimum) / 20 dB (typical) / 22 dB (maximum). Die dimensions: 3.94 × 2.48 × 0.07 mm.



RF characteristics

TA = +25 °C; Vd = +5 V; Id = 0.9 A

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	15000	-	43000	MHz
Small-signal gain	S21	18	20	22	dB
Small-signal gain flatness	ΔS21	-	±2	-	dB
Output power at 1 dB compression	-	-	29.5	-	dBm
Saturated output power	Psat	-	30	-	dBm
Power-added efficiency	PAE	-	18	-	%
Input VSWR	VSWR(in)	-	1.5	-	-
Output VSWR	-	-	1.5	-	-
Saturation current	-	-	1.2	-	A

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain voltage [1]	Vd	-	-	-	5	V
Gate voltage [1]	Vg	-	-	-	-0.4	V
Bias current [2]	-	-	-	-	0.9	A

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

[2] Vd = +5 V; Vg = -0.4 V; Value stated without a Min/Typ/Max qualification.

Absolute limits

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	Vd	-	-	6	V
Minimum gate bias	Vg	-1	-	-	V
Maximum input power	Pin	-	-	20	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	3.94 × 2.48 × 0.07	mm

Current publication record · 1.9 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.8.

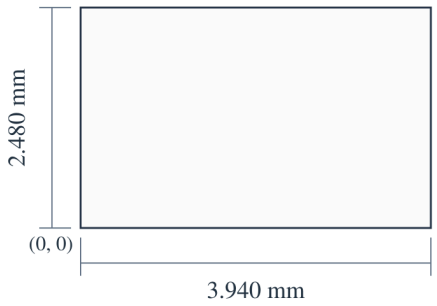
Die integration and bias sequencing

Separate characterization: TA = +25 °C; Vd = +5 V; Id = 0.9 A. Apply gate bias before drain bias. Remove drain bias before gate bias. Use only one of Vg1/Vg2 for 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-15000-43000-PS30T



X (mm)
(3/4): 0.420
(5/7): 2.480
(6/8): 3.560

Y (mm)
RFin: 1.690
RFout: 0.800

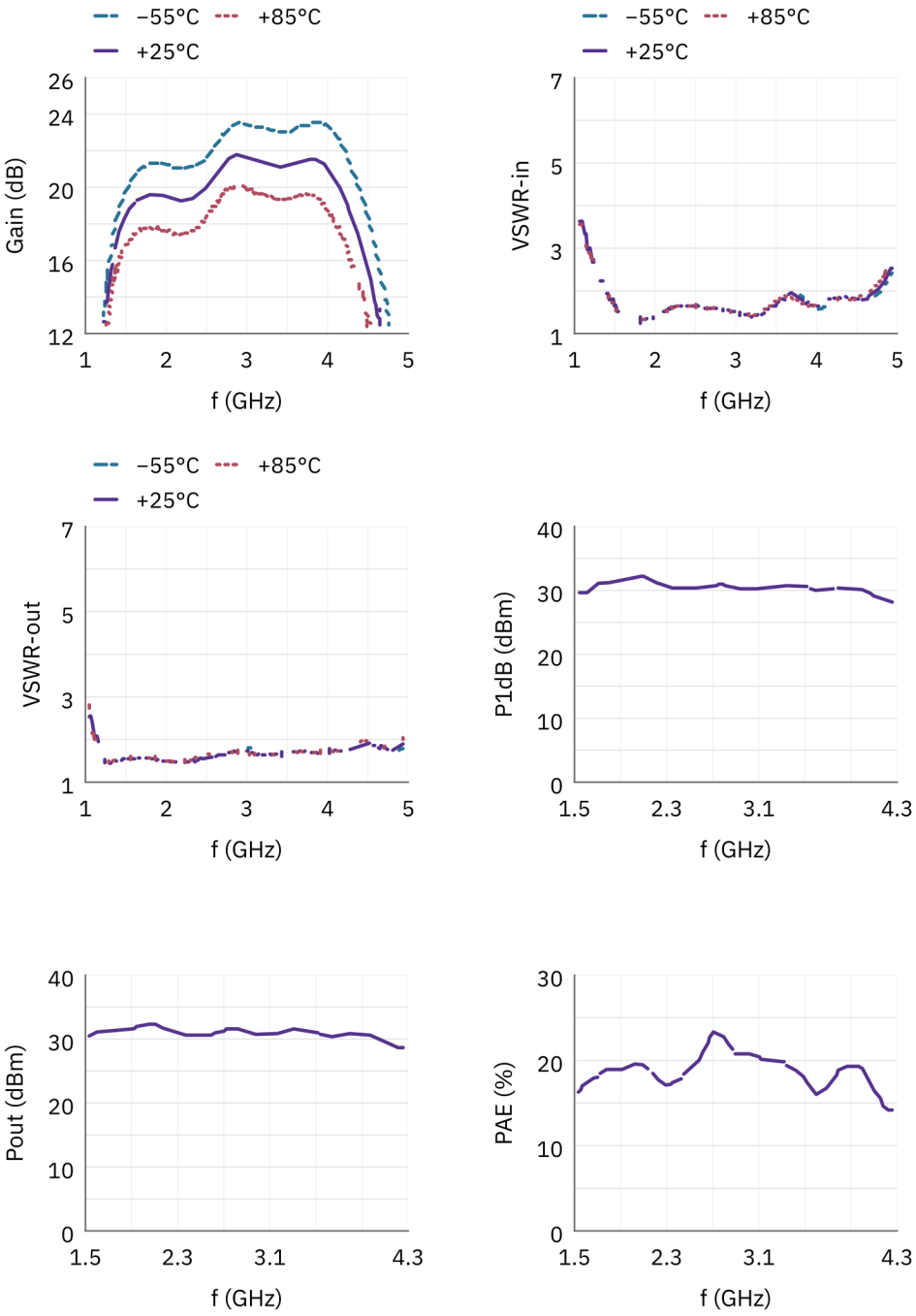
3.940 × 2.480 × 0.070 mm
X, Y: ±0.050 mm
X → · Y ↑ · X, Y: mm

Performance curves

Each performance plot applies to its stated operating conditions.

Small-signal gain; Input matching; Output matching; Output power; Output power at compression; Power-added efficiency.

Figure notes: TA = +25°C; Vd=5V; Id=900mA. Readings are approximate. Pout / PAE: Pin = 12 dBm. Use the temperature shown 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.