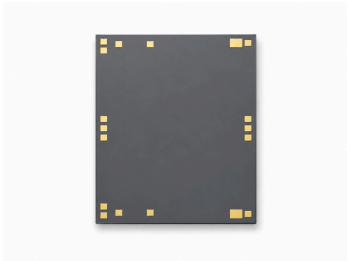


13750–14500 MHz GaN MMIC Power Amplifier Die

pulsed: PSAT: 45 dBm (minimum); Power gain: 20 dB (minimum); PAE: 37 % (minimum) / 38 % (typical). Die dimensions: 2.8 × 3.5 × 0.1 mm.



RF characteristics · TA = +25 °C; Vd = +28 V; Vg = -3.08 V; pulsed

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Operating frequency	f	13750	-	14500	13750–14500	MHz
Saturated output power	Psat	45	-	-	-	dBm
Power gain	Gp	20	-	-	-	dB
Power-gain flatness	ΔGp	-	±0.3	-	-	dB
Power-added efficiency	PAE	37	38	-	-	%
Input VSWR	VSWR(in)	-	-	2	-	-

DC bias and current · TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Drain voltage	Vd	24	28	32	V
Gate voltage	Vg	-5	-3.08	-2.6	V
Quiescent drain current	Id	-	0.2	-	A
Dynamic drain current	Idd	-	3.1	3.5	A
Dynamic gate current	Igg	-	0.5	5	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	-	-	28	dBm
Storage temperature	TSTG	-65	-	150	°C
Maximum channel temperature	Top	-	-	225	°C

Die dimensions

Parameter	Value	Unit
Die dimensions	2.8 × 3.5 × 0.1	mm

Current publication record · 1.3 · 2026-10-27. Product description or editorial content updated. Replaces revision 1.2.

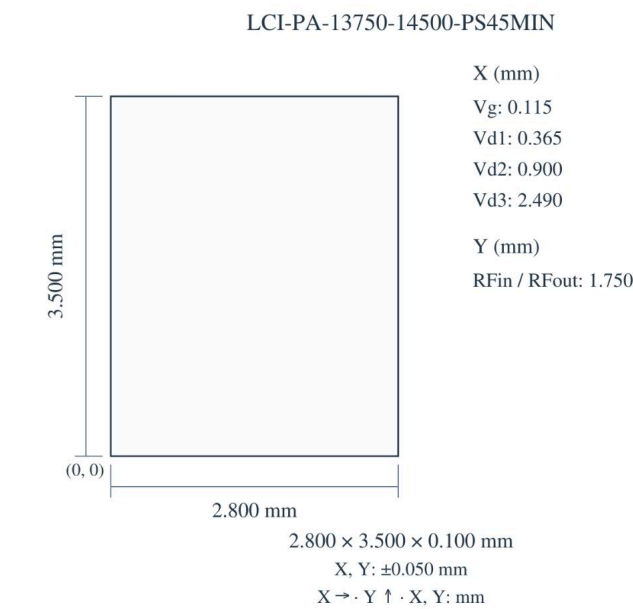
Die integration and bias sequencing

Integrated DC blocking: RFin / RFout. DC path to ground: RFin → GND. Separate characterization: Vd = +28 V; Vg = -3.08 V; CW; Pin = 25 dBm. Apply gate bias before drain bias. Remove drain bias before gate bias. Two-sided bias feed is recommended.

Mechanical reference scope

Source-based outline and explicitly dimensioned coordinate guides in mm. Not a complete fabrication or wire-bonding drawing.

Mechanical Outline



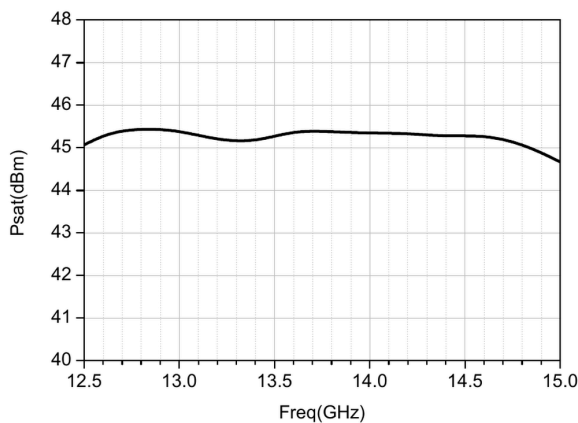
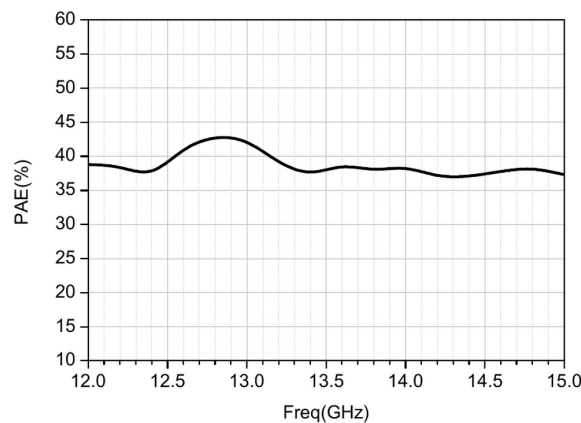
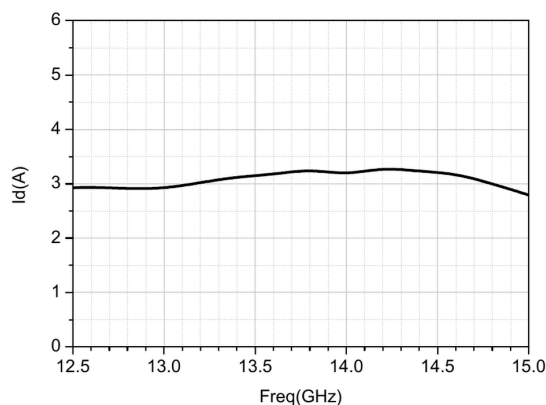
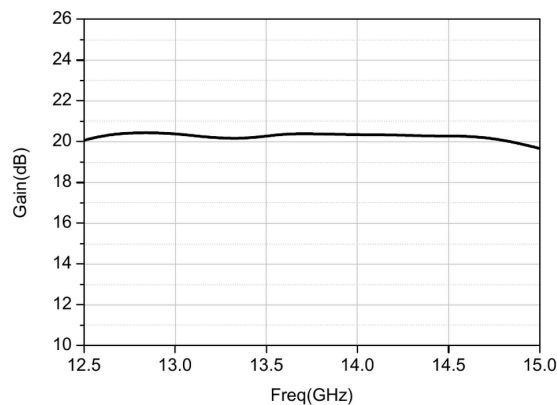
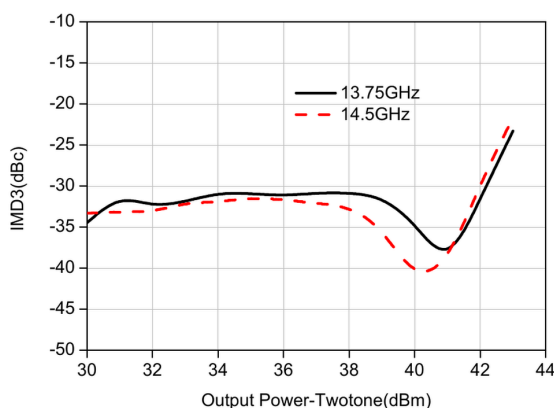
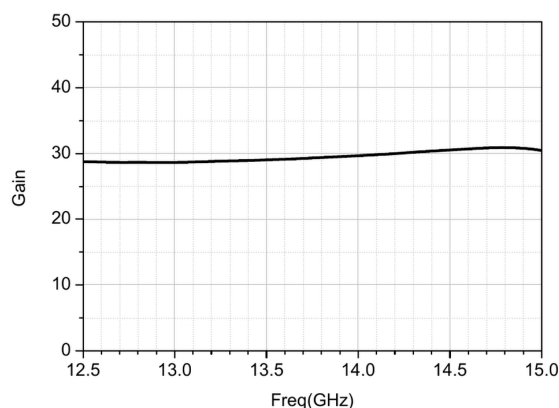
All dimensions are in mm [in].

Performance curves

Plots from the source datasheet. Read each figure with its stated operating conditions.

Saturated output power; Power-added efficiency; Dynamic drain current; Power gain; IMD3.

Source-page annotation: $V_d=+28V$; $V_g=-3.08V$. Complete original plots, axes and labels are retained; only arrangement is adjusted. (1–4): $P_{in} = 25$ dBm. IMD3: $f = 13.75 / 14.5$ GHz. (6): $S_{21} \neq$ Gain; $P_{in} = -10$ dBm. Conditions apply to the indicated plots and their own legends. Read the plotted quantities from the axes; the source headings differ. Symbols and unexpanded units are retained as printed; no missing definition is inferred.



[Source](#)

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.