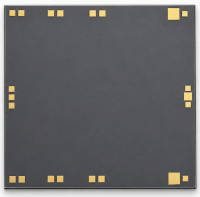
11500–18000 MHz GaN MMIC Power Amplifier Die

PSAT: 44 dBm (minimum) / 44.5 dBm (typical); Power gain: 19 dB (minimum) / 19.5 dB (typical); PAE: 28 % (minimum) / 30 % (typical). Die dimensions: 3.52 × 3.55 × 0.1 mm.



RF characteristics · TA = +25 °C; Vd = +28 V; Vg = -2.4 V; Pin = 25 dBm; τ = 100 µs; D = 10%

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Operating frequency	f	11500	-	18000	11500–18000	MHz
Saturated output power	Psat	44	44.5	-	-	dBm
Power gain	Gp	19	19.5	-	-	dB
Power-gain flatness	ΔGp	-	-	±0.5	-	dB
Power-added efficiency	PAE	28	30	-	-	%
Small-signal gain	S21	28	29	31	-	dB
Small-signal gain flatness	ΔS21	-	-	±1.5	-	dB
Input VSWR	VSWR(in)	-	1.8	2	-	-

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain voltage	Vd	-	28	-	-	V
Gate voltage	Vg	-	-2.4	-	-	V
Quiescent drain current	Id	-	-	-	1.85 (Vd = +28 V; Adjustable; the source assigns no minimum, typical or maximum qualifier.)	A

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

Absolute limits

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Storage temperature	TSTG	-65	-	150	°C
Maximum channel temperature	Top	-	-	200	°C

Die dimensions

Parameter	Value	Unit
Die dimensions	3.52 × 3.55 × 0.1	mm

Current publication record · 1.4 · 2026-10-26. Product description or editorial content updated. Replaces revision 1.3.

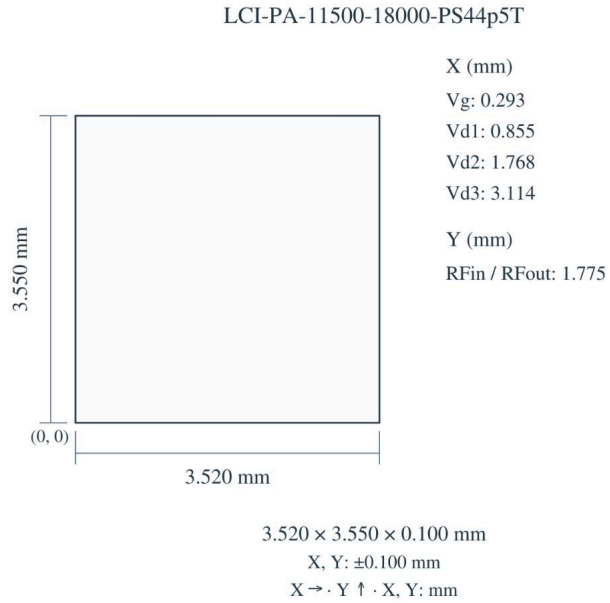
Die integration and bias sequencing

Integrated DC blocking: RFin / RFout. DC path to ground: RFin / RFout → GND. Internally connected gate pads: Vg ↔ Vg. Separate characterization: TA = +25 °C; Vd = +28 V; Vg = -2.4 V; Pin = 25 dBm; τ = 100 µs; D = 10%. Apply gate bias before drain bias. Remove drain bias before gate bias.

Mechanical reference scope

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

Mechanical Outline



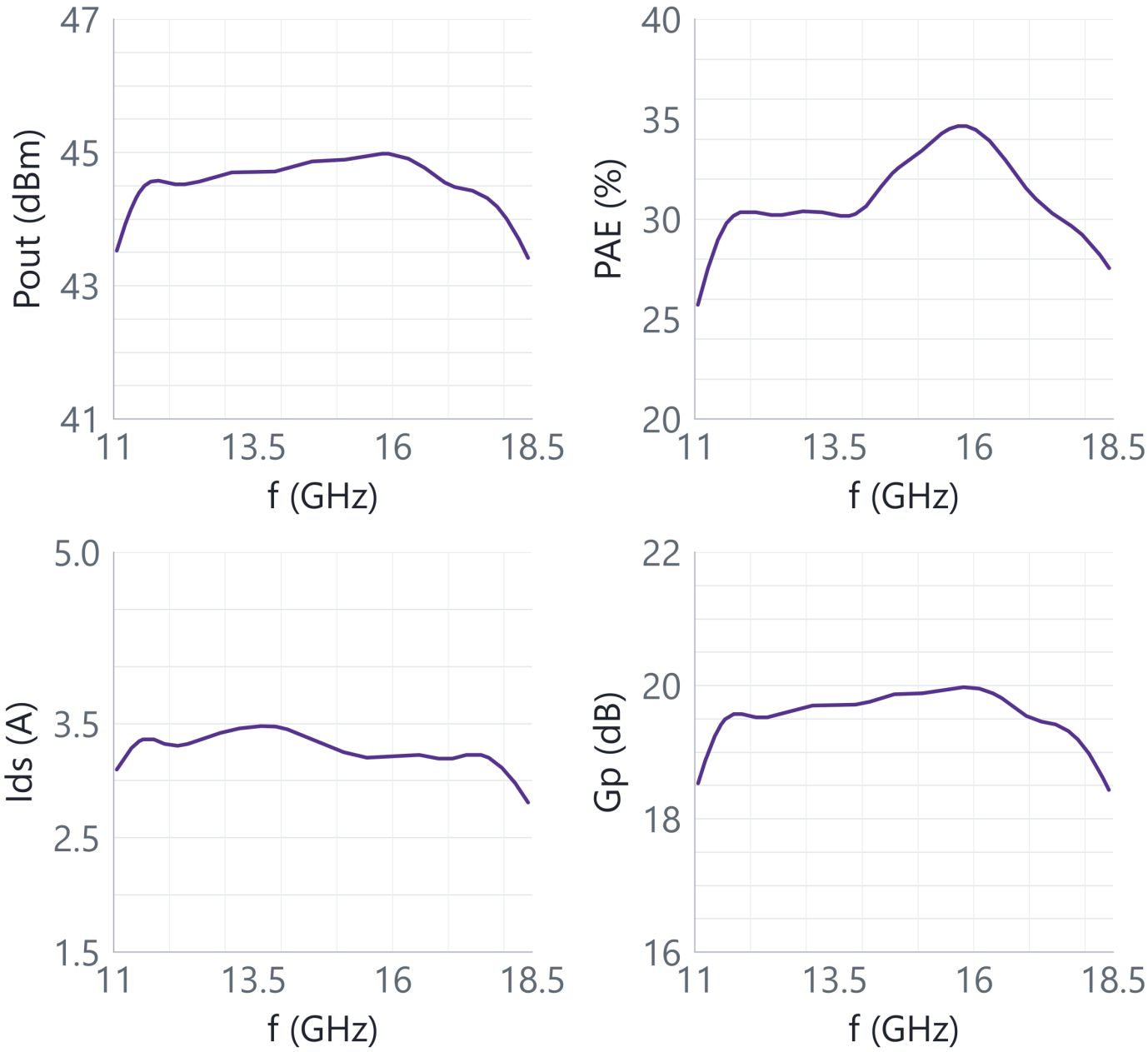
All dimensions are in mm [in].

Performance curves

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

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

Source-page annotation: TA=+25°C; Vd=+28V; Vg=-2.4V; Pin=25dBm. Pulse width = 100 µs; duty cycle = 10%. Replotted from the source image; readings are approximate.



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.