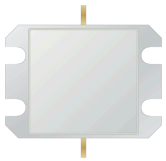
2700–3500 MHz GaN Internally Matched Power Transistor — PSAT 53.5 dBm (typical)

LCT-2700-3500-PS53p5T · 2700–3500 MHz · GaN Internally Matched Power Transistor.



The RF table specifies: PSAT 53.5 dBm (typical); Power gain 13.5 dB (typical); PAE 65 % (typical). RF test conditions: TA = +25 °C; VDS = 28 V; VGS ∈ [-4, -2] V; Pin = 40 dBm; D = 10%; PW = 100 µs.

CMW025B

Apply gate bias before drain bias. Remove drain bias before gate bias.

Vg: C = 10 µF

RF characteristics

TA = +25 °C; VDS = 28 V; VGS ∈ [-4, -2] V; Pin = 40 dBm; D = 10%; PW = 100 µs

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	2700	-	3500	MHz
Saturated output power	-	53	53.5	-	dBm
Power gain	-	13	13.5	-	dB
Power-added efficiency	-	60	65	-	%
Power-gain flatness	-	-	-	1.5	dB

DC bias and current

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain operating voltage	-	-	-	-	28	V
Gate operating voltage	-	-	-	-	[-4, -2]	V
Pinch-off voltage	-	-4	-	-2	VDS = 6 V; IDS ≤ 80 mA	V
Reverse gate current	-	-	-	0.01	VDS = 0 V; VGS = -10 V	A

Absolute limits

Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	-	-	-	32	V
Minimum gate bias	-	-5	-	-	V
Storage temperature	-	-65	-	150	°C
Maximum input power	-	-	-	42	dBm

Current publication record · 1.6 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.5.

Integration notes

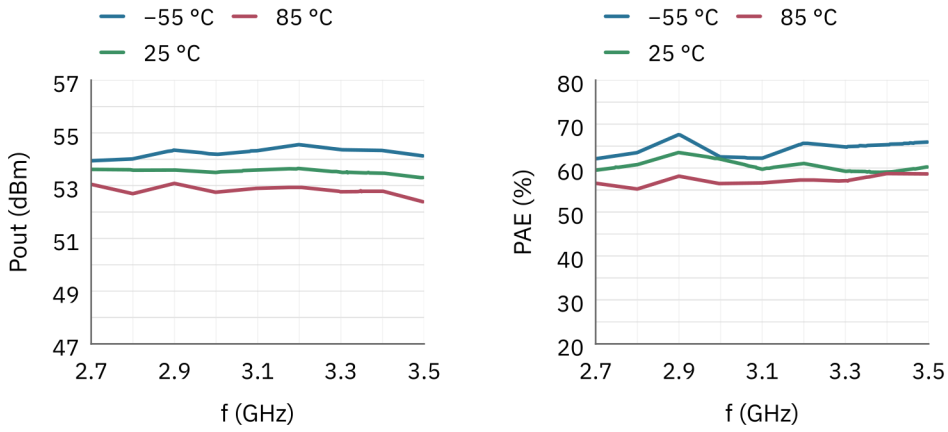
CMW025B Apply gate bias before drain bias. Remove drain bias before gate bias. Vg: C = 10 µF G: RF input D: RF output S: Source / ground

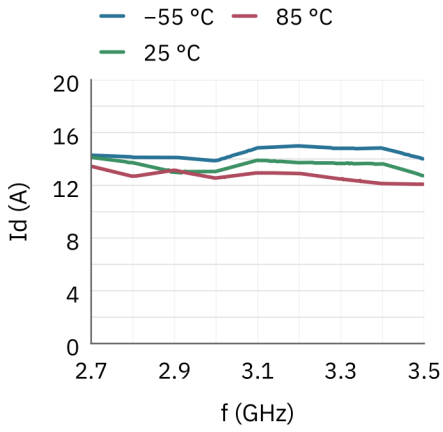
Performance curves

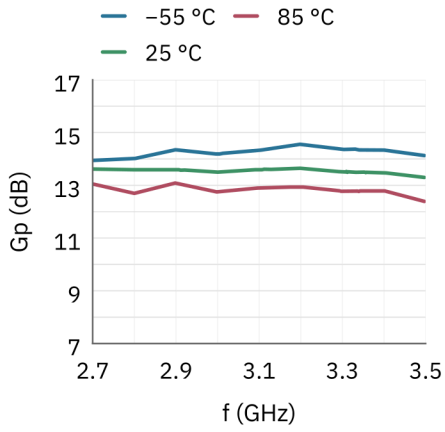
Read each figure with its stated operating conditions.

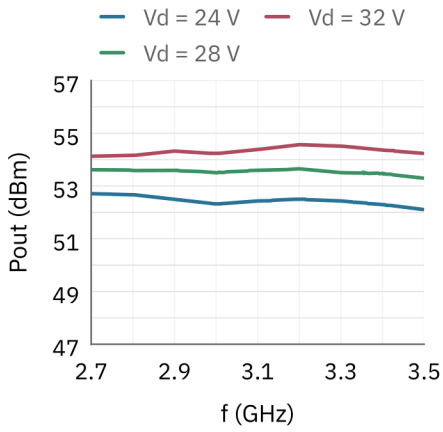
Output power; Power-added efficiency; Drain current; Power gain.

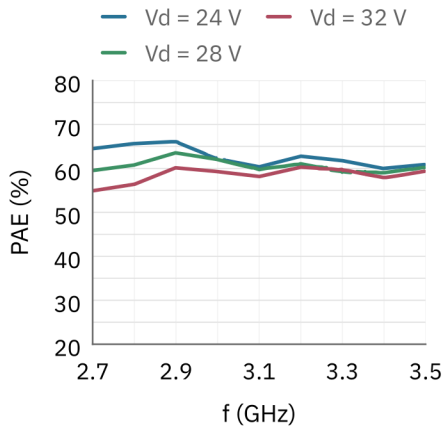
Readings are approximate. Pout / PAE / Id / Gp: T = −55 / +25 / +85 °C; Vd = 28 V; Vg = −3 V; Pin = 40 dBm; PW = 100 µs; D = 10%. Pout / PAE (Vd): Vd = 24 / 28 / 32 V; TA = +25 °C; Vg = −3 V; Pin = 40 dBm; PW = 100 µs; D = 10%.





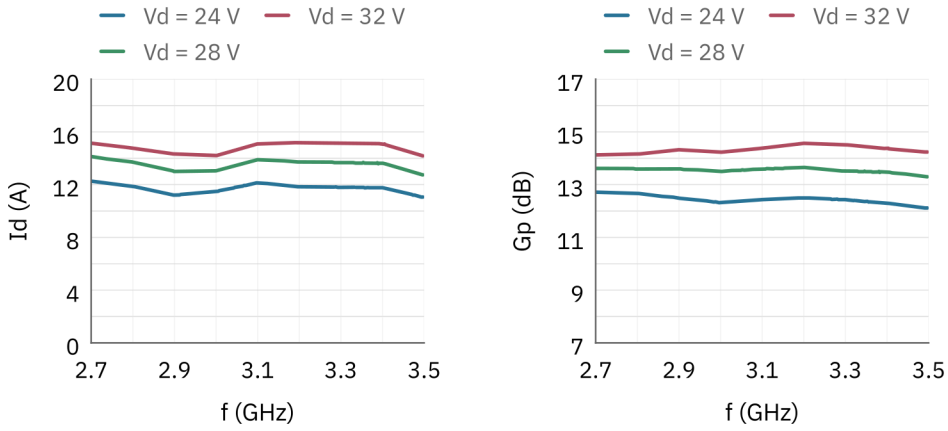


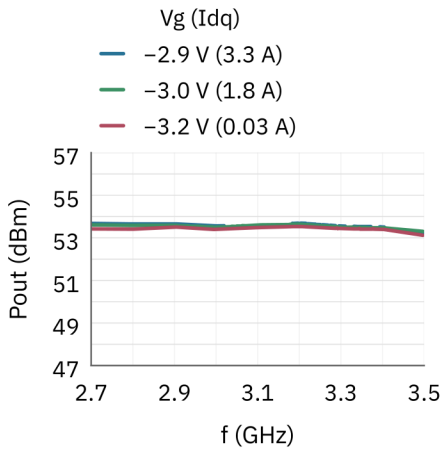


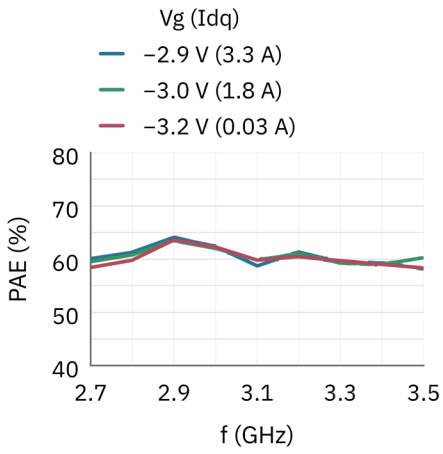


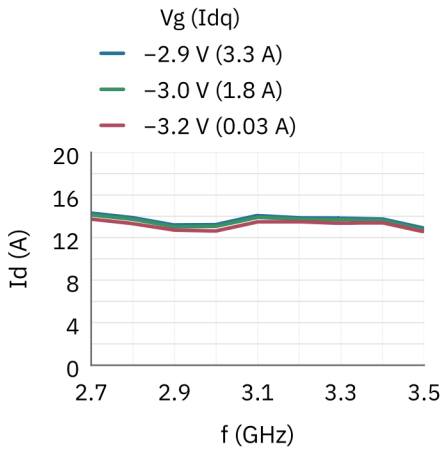
Output power; Power-added efficiency; Drain current; Power gain.

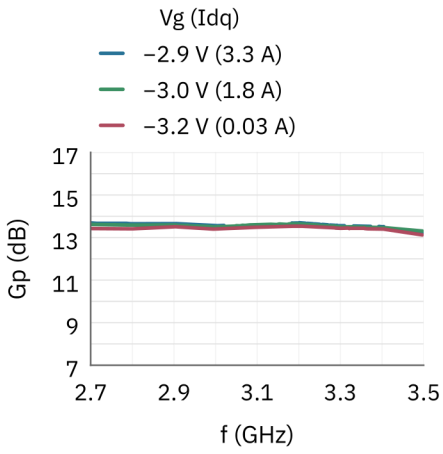
Readings are approximate. Id / Gp (Vd): Vd = 24 / 28 / 32 V; Vg = −3 V. Pout / PAE / Id / Gp (Vg): Vg = −2.9 / −3.0 / −3.2 V; Idq = 3.3 / 1.8 / 0.03 A; Vd = 28 V. TA = +25 °C; Pin = 40 dBm; PW = 100 µs; D = 10%.





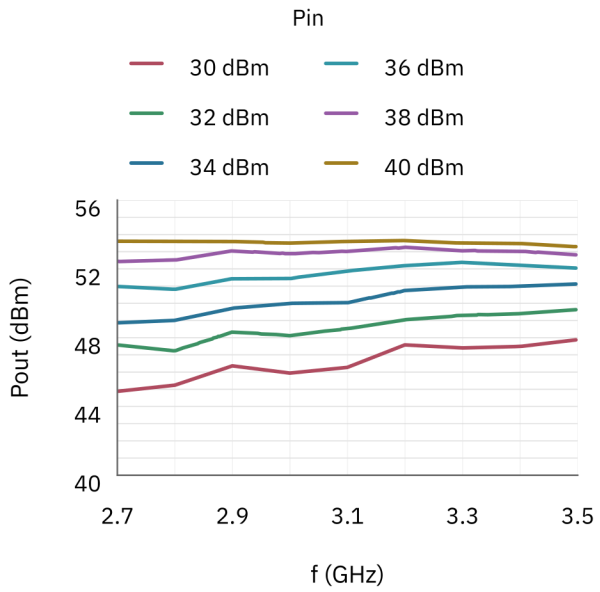


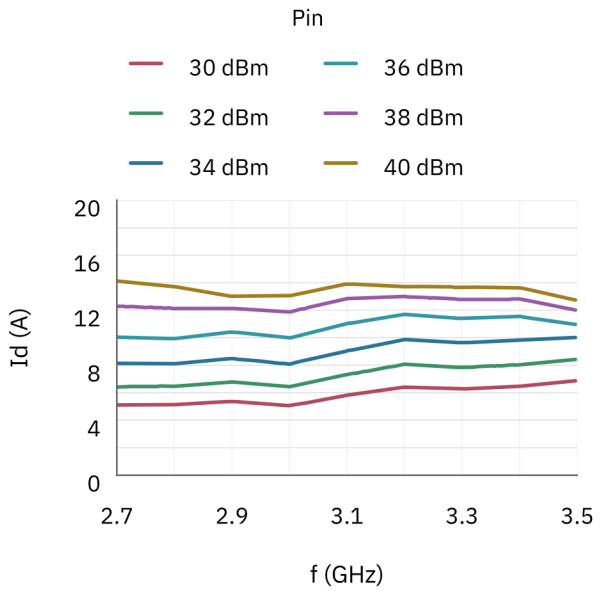


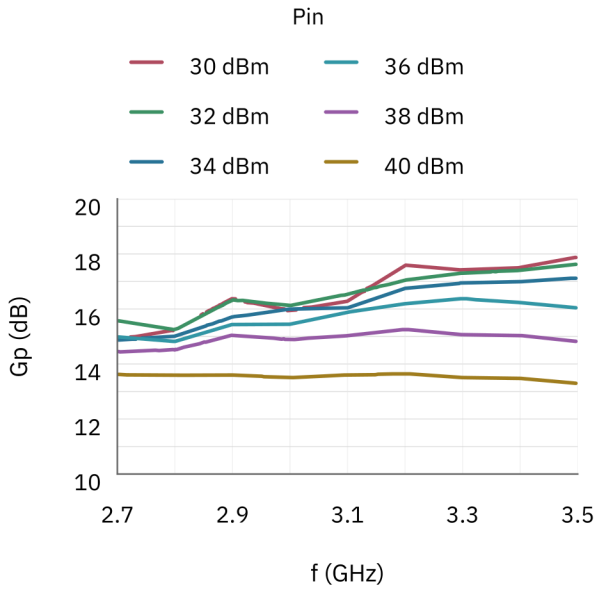


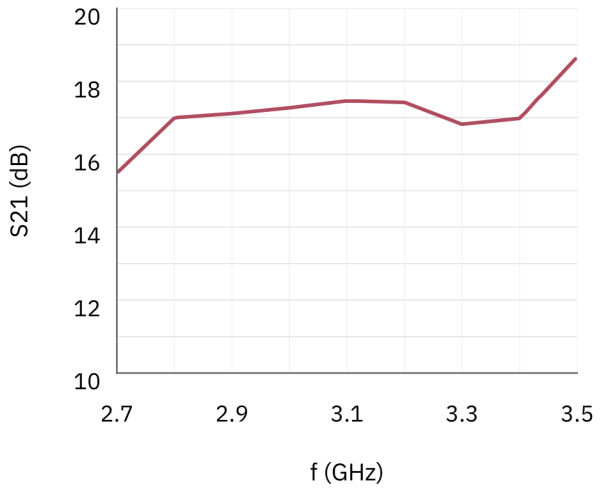
Pout (dBm); Id (A); Gp (dB); S21 (dB).

Readings are approximate. Pout / Id / Gp: Pin = 30 / 32 / 34 / 36 / 38 / 40 dBm; Vd = 28 V; Vg = −3 V; TA = +25 °C; PW = 100 µs; D = 10%. These bias, drive and pulse conditions apply only to Pout/Id/Gp. The final S21 plot gives no separate bias, Pin or pulse conditions.









Document notice

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