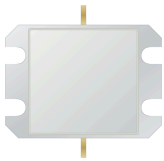
5700–7100 MHz GaN Internally Matched Power Transistor — PSAT 51 dBm (typical)

LCT-5700-7100-PS51T · 5700–7100 MHz · GaN Internally Matched Power Transistor.



The RF table specifies: PSAT 51 dBm (typical); Power gain 11 dB (typical); PAE 45 % (typical). RF test conditions: TA = +25 °C; VDS = 28 V; VGS ∈ [-3.2, -2.4] 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 ∈ [-3.2, -2.4] V; Pin = 40 dBm; D = 10%; PW = 100 µs

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	5700	-	7100	MHz
Saturated output power	-	50.5	51	-	dBm
Power gain	-	10.5	11	-	dB
Power-added efficiency	-	40	45	-	%
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	-	-	-	-	[-3.2, -2.4]	V

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

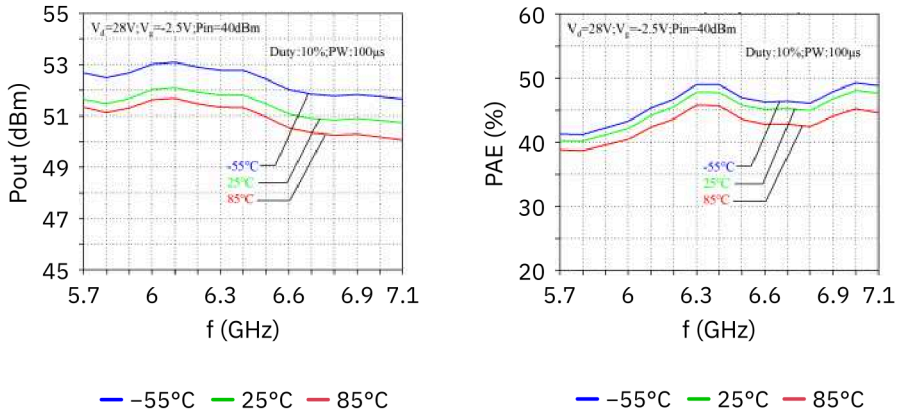
Current publication record · 1.5 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.4.

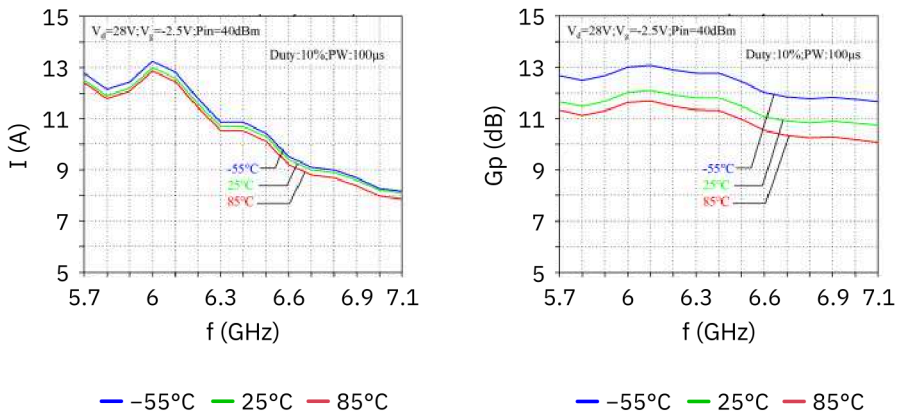
Integration notes

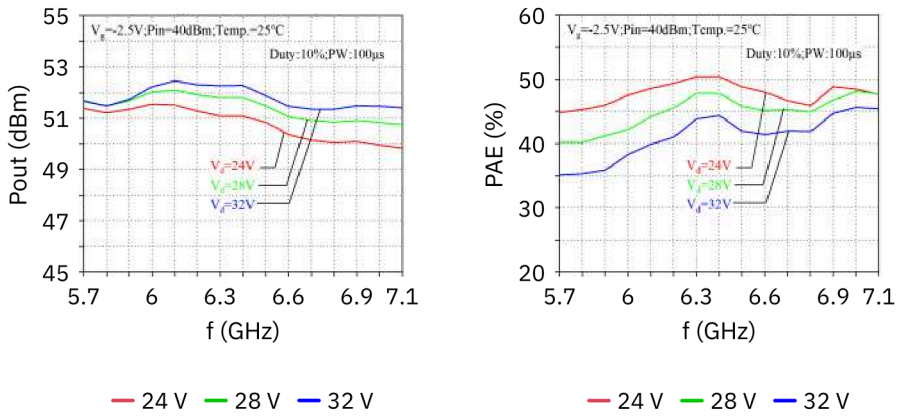
CMW025B Apply gate bias before drain bias. Remove drain bias before gate bias. Vg: C = 10 µF G: RF input D: RF output S: Source / ground

Performance curves

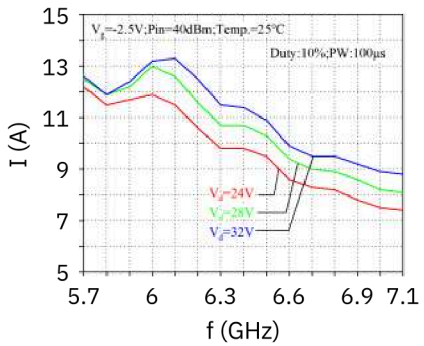
Read each figure with its stated operating conditions.

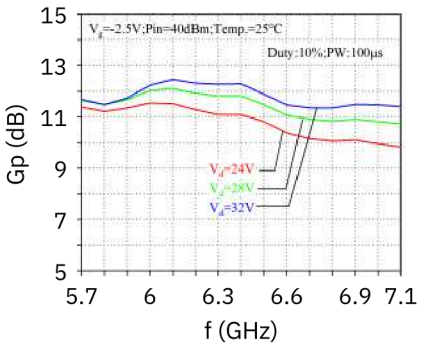






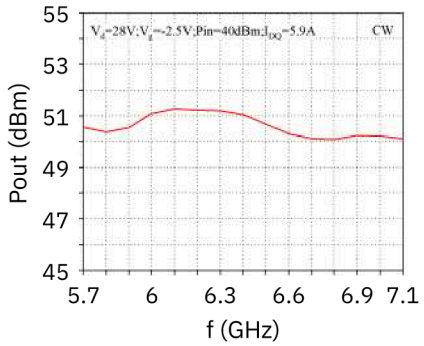
Output power; Power-added efficiency; Drain current; Power gain. Plots 1–4: Vd = 28 V; Vg = −2.5 V; Pin = 40 dBm; D = 10%; PW = 100 µs; Temp = −55 / +25 / +85°C. Plots 5–6: Vd = 24 / 28 / 32 V; Vg = −2.5 V; Pin = 40 dBm; Temp = +25°C; D = 10%; PW = 100 µs.

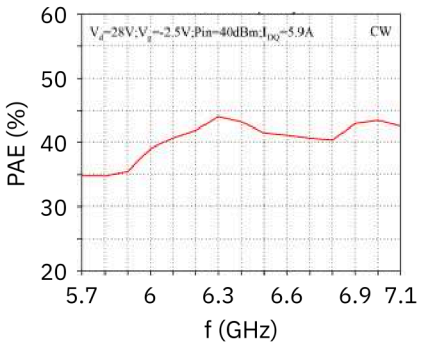


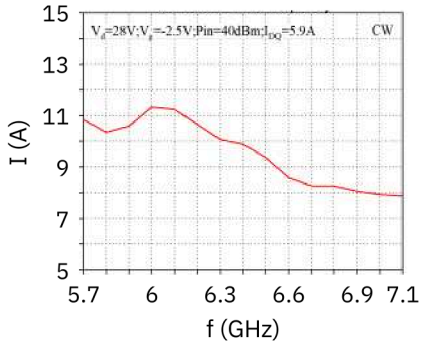


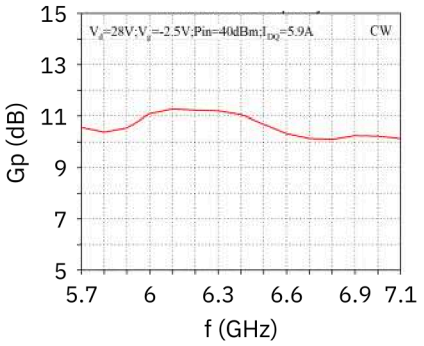
24 V 28 V 32 V

24 V 28 V 32 V

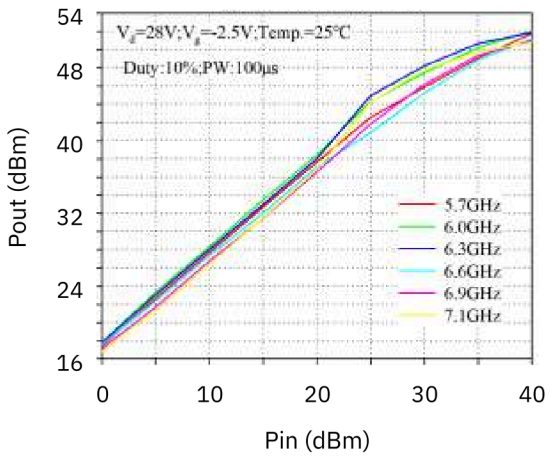


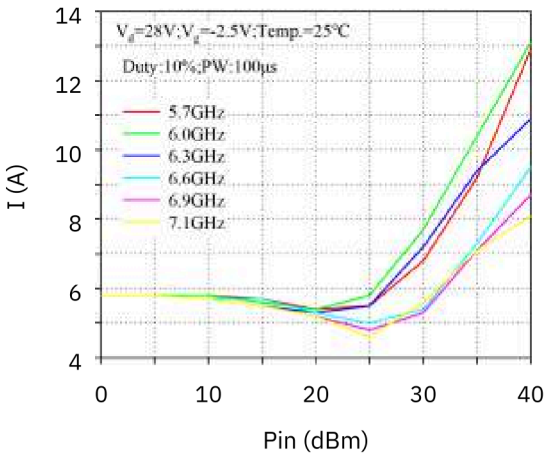






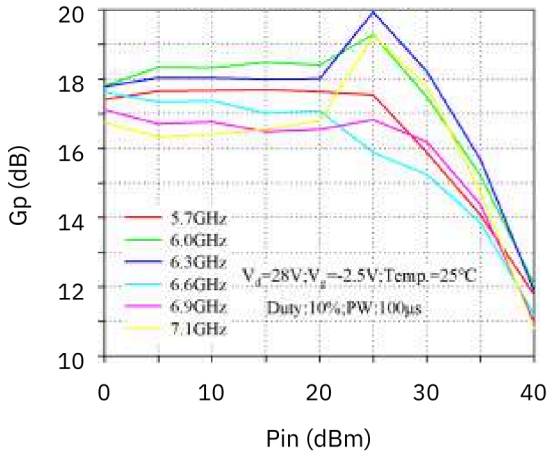
Output power; Power-added efficiency; Drain current; Power gain. Plots 1–2: Id, Gp; Vd = 24 / 28 / 32 V; Vg = −2.5 V; Pin = 40 dBm; Temp = +25°C; D = 10%; PW = 100 µs. Plots 3–6: Pout, PAE, Id, Gp; Vd = 28 V; Vg = −2.5 V; Pin = 40 dBm; IDQ = 5.9 A; CW.





5.7 GHz 6.3 GHz 6.9 GHz
6.0 GHz 6.6 GHz 7.1 GHz

5.7 GHz 6.3 GHz 6.9 GHz
6.0 GHz 6.6 GHz 7.1 GHz



5.7 GHz 6.3 GHz 6.9 GHz
6.0 GHz 6.6 GHz 7.1 GHz

Output power; Drain current; Power gain. Vd = 28 V; Vg = −2.5 V; Temp = +25°C; D = 10%; PW = 100 µs; Pin = 0–40 dBm.

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.