

ABSTRACT

DC-DC CONVERTER BLOCK, DC-DC CONVERTER COMPRISING THE SAME,
AND ASSOCIATED ENVELOPE TRACKING SYSTEM

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The invention relates to a high-power and high-frequency DC-DC converter block for the envelope tracking technique comprising a step-down power circuit whose output constitutes the output of the DC-DC converter block, the
10 step-down power circuit comprising at least one HEMT (high electron mobility transistor) depletion-mode transistor (T3,T6), the DC-DC converter block further comprising a gate driving circuit of the at least one HEMT depletion-mode transistor (T3,T6) of the step-down power circuit,
15 characterized in that the driving circuit has HEMT depletion-mode transistors (T1,T2; T4,T5) configured to drive the gate of the at least one HEMT depletion-mode transistor (T3,T6) of the step-down power circuit, and in that the step-down power circuit is powered by two positive
20 and non-zero power supply voltages, namely a first power supply voltage (VDD1) and a second power supply voltage (VDD2), the first power supply voltage (VDD1) being greater than the second power supply voltage (VDD2).

25 Figure to be published with abstract: Fig. 1