

Low phase-noise GaInP/GaAs-HBT MMIC oscillators up to 36 GHz

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Monolithic coplanar 18 and 36 GHz oscillators with GaInP/GaAs-HBTs and on-chip resonators are presented. Measured phase-noise reaches -93 dBc/Hz and -91 dBc/Hz at 100 kHz offset for 18 and 36 GHz, respectively. These values demonstrate that GaAs-HBT oscillators yield a phase-noise performance comparable to SiGe-HBTs, with the potential for higher frequencies.

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