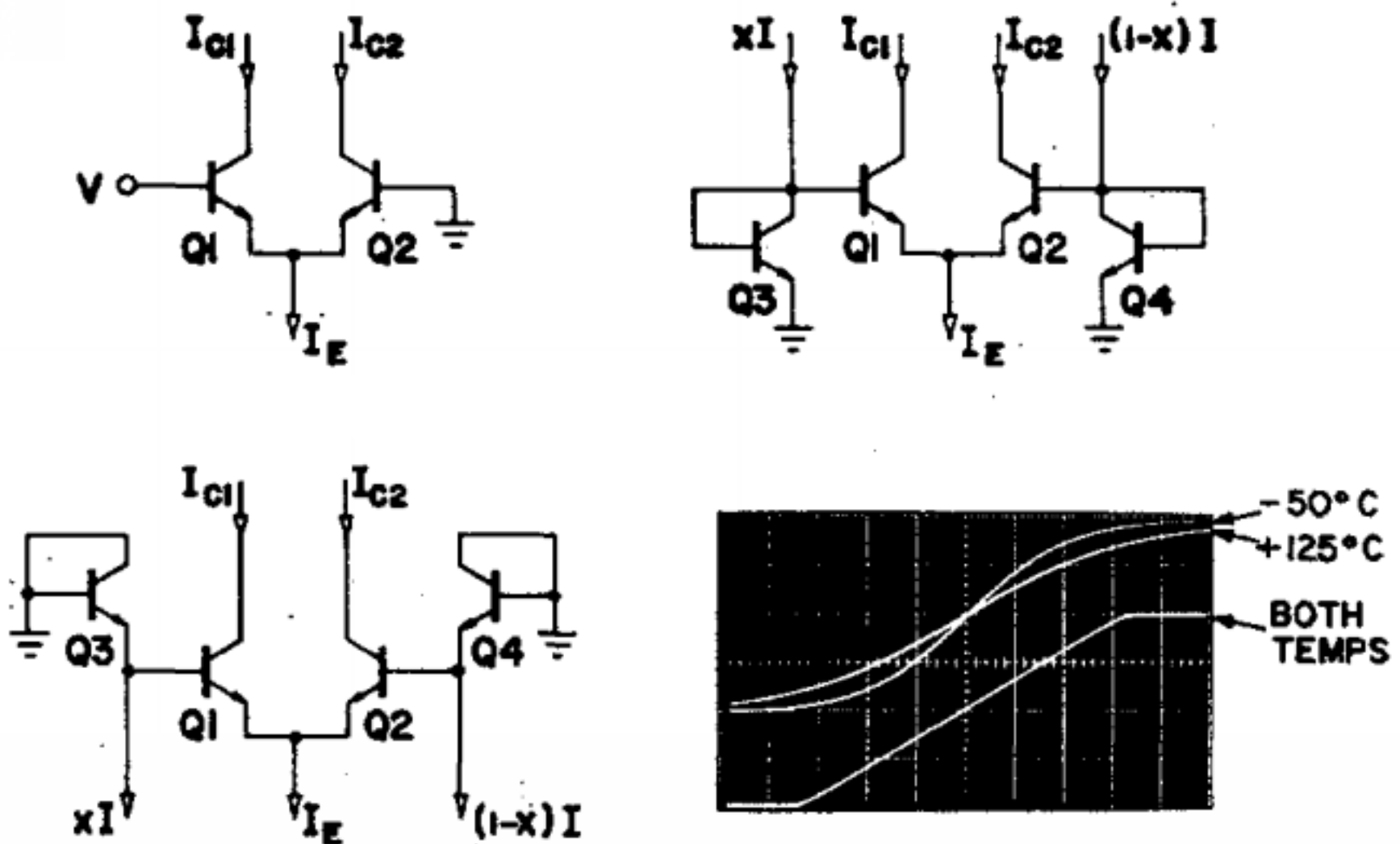


FIRST CURRENT-DOMAIN LINEAR MIXER

ISSCC 1968



A DC-500MHz Amplifier/Multiplier Principle

SINCE ARMSTRONG'S elucidation of the superheterodyne principle in 1918, the mixer has lain at the heart of virtually every receiver. In the process of describing a general wideband amplification principle in the context of bipolar transistors, Gilbert extends his ideas to the example of a four-quadrant multiplier. This circuit is the progenitor of many mixers (bipolar, CMOS and otherwise) often called "Gilbert multipliers" whether or not they actually are. It is hard to identify a modern transceiver that does not contain a Gilbert-like mixer somewhere within.

B. Gilbert

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