

[DISCUSSION]

Two new transmission lines have been designed and fabricated to generate >15V with ~20ps and ~10ps fall times, respectively. These two lines are currently under test. New wafer profiles have been designed to increase the power handling capability of quantum barrier devices by vertically stacking more than six barriers together. Lateral stacking techniques can be utilized to further increase the breakdown voltage, and varactors with >50 V breakdown voltages and >300GHz cut-off frequencies appear to be readily achievable.

[REFERENCES]

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