

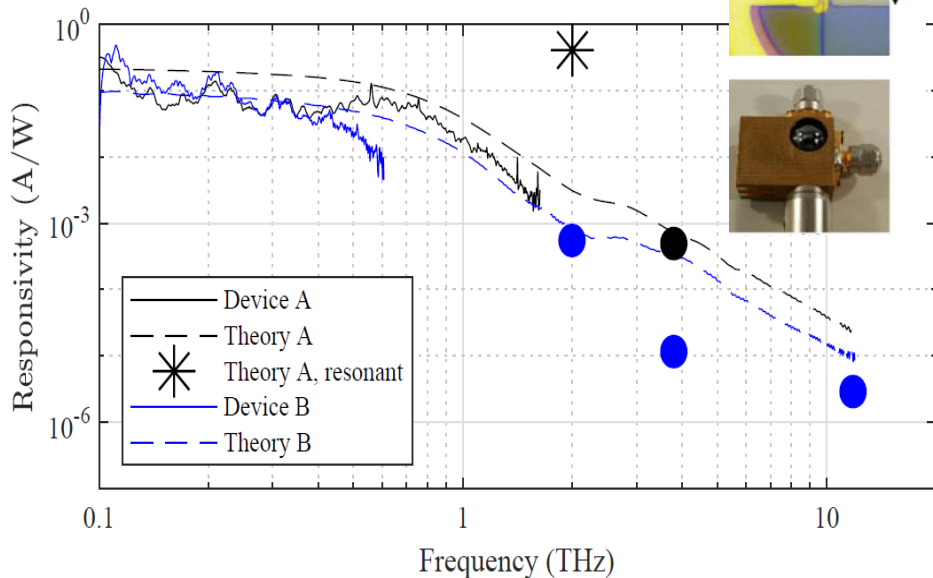


THz Detectors - Measurement of low and high power THz Signals at room temperature

Prof. Dr. Sascha Preu, Dr. Stefan Regensburger – THz Bauelemente und Systeme
Prof. Dr. Andreas Penirschke, Rahul Yadav – Hochfrequenztechnik

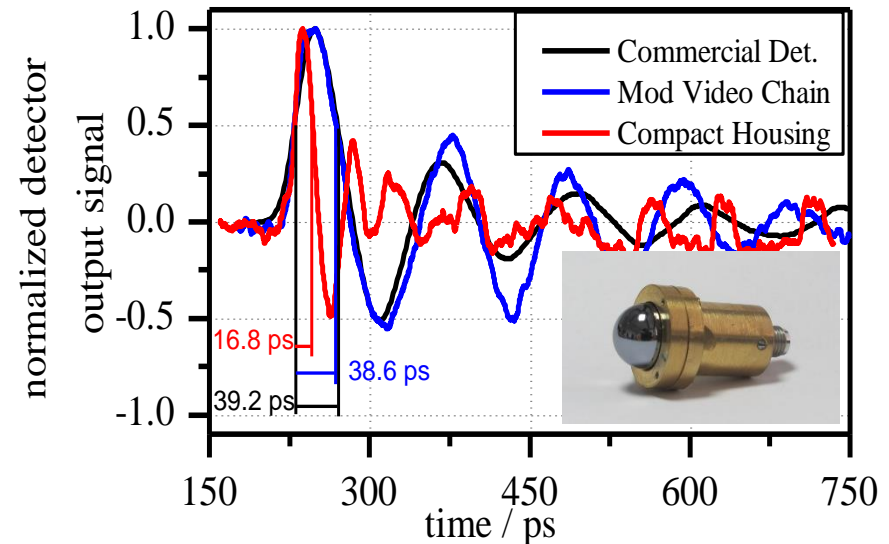


THz FET Devices



THz Schottky Detectors

Short collimated THz pulses at 1.315 THz.



RF Bandwidth 100 GHz – 11.8 THz
NEP 250 pW/ $\sqrt{\text{Hz}}$ at 0.6 THz

RF Bandwidth 50 GHz – 2 THz
Video Bandwidth 40 GHz



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Project goals

- Optimization of both techniques for large Video Bandwidth
- Resonant Antenna concepts for frequencies above 2 THz
- Investigation of Array concepts
- Combination of both techniques for low and high power THz signals
- Synchronization of Pump-probe experiments

Cooperation Partner



IBPT