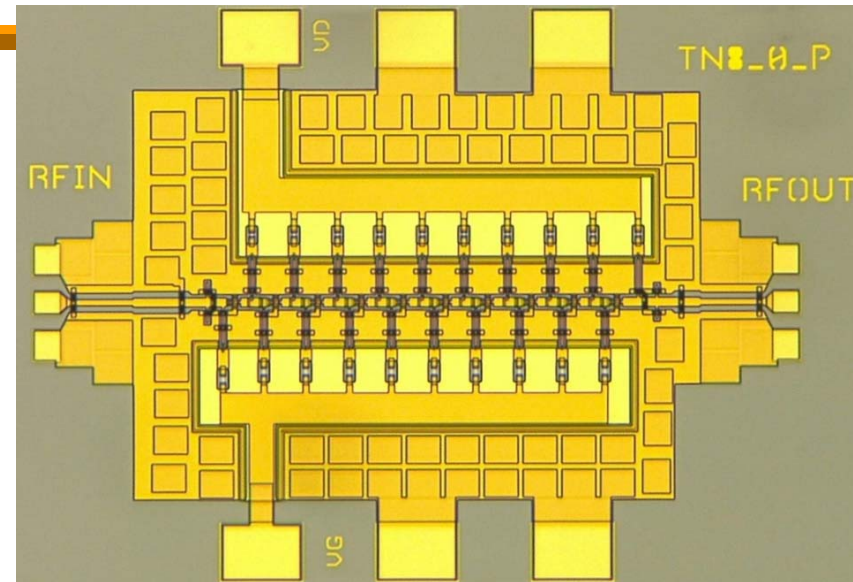


# First Terahertz Amplifier

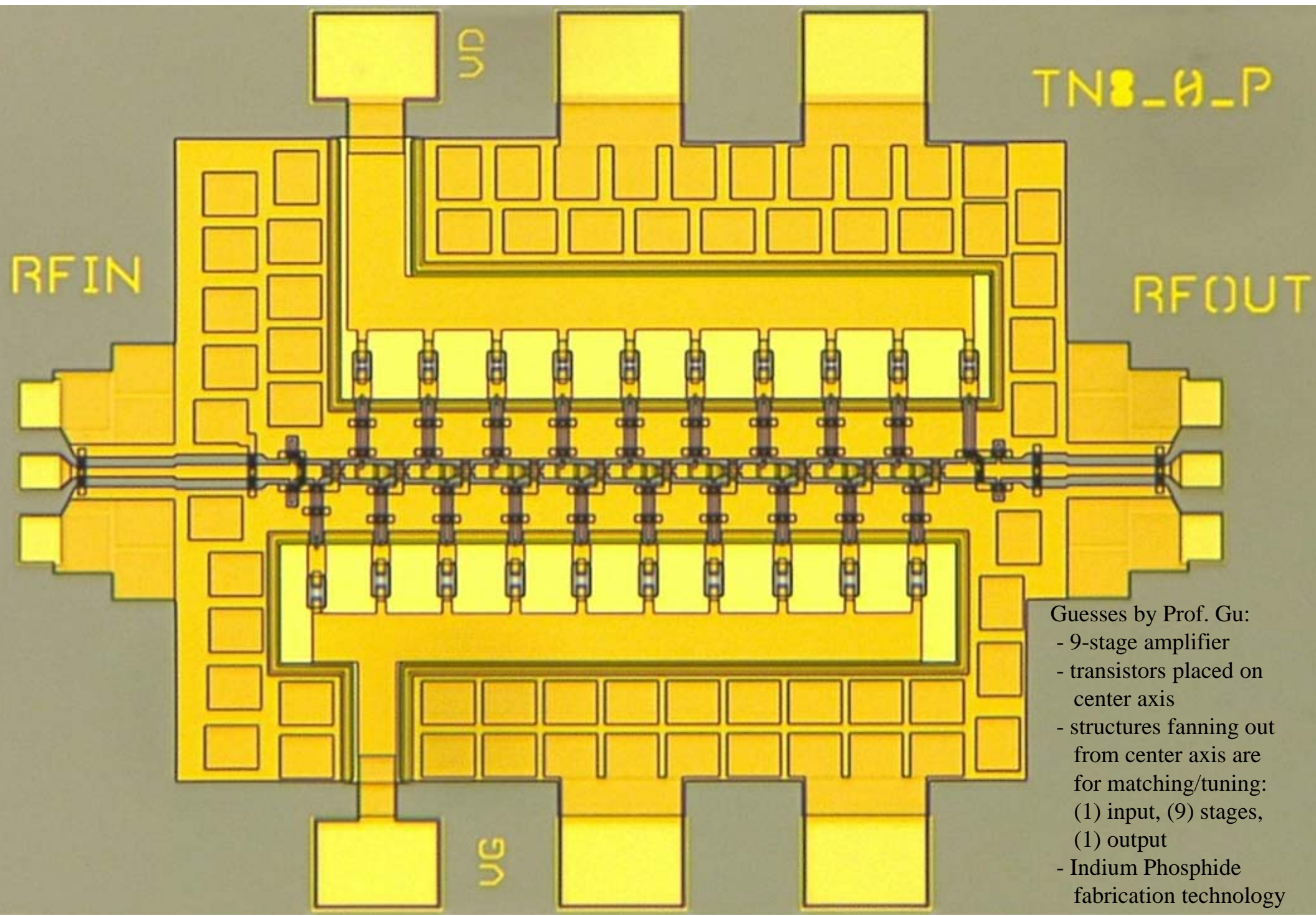
“...on Tuesday, DARPA joined the ranks of the record-breaking, setting a world record for the fastest solid-state amplifier integrated circuit. Becoming the first circuit to clock in above 1 terahertz (1000 GHz), it eclipsed the 850-gigahertz record set by DARPA’s Terahertz Electronics program in 2012.”



Made in partnership with Northrop Grumman Corp.

“Palmer said this technology will have a range of applications, including new high-resolution security imaging systems, improved collision-avoidance radar and spectrometers....”

# First Terahertz Amplifier



- Guesses by Prof. Gu:
- 9-stage amplifier
  - transistors placed on center axis
  - structures fanning out from center axis are for matching/tuning: (1) input, (9) stages, (1) output
  - Indium Phosphide fabrication technology