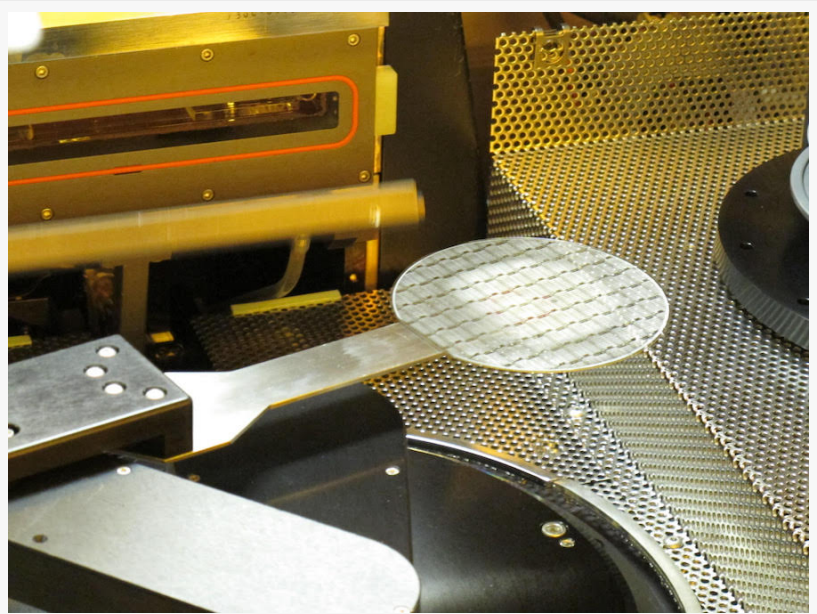


WIN Semiconductors Releases 50V RF GaN Technology for High Power MMICs

NP25-20 is a complete X to Ku-band front-end solution with over 10 watts/mm output power density, sub-1dB noise figure and rugged switch performance

TAO YUAN, TAIWAN, June 12, 2023 /EINPresswire.com/ -- Tao Yuan, Taiwan - June 12, 2023: WIN Semiconductors Corp (TPEX:3105), the world's largest pure-play compound semiconductor foundry, announces the commercial release of a 50V 0.25μm-gate RF gallium nitride (GaN) platform, NP25-20, and targets high performance front-end applications including radio access networks, satellite communications, electronic warfare and radar systems. The NP25-20 technology supports full MMICs enabling WIN customers to design compact, linear or saturated high-power amplifiers, rugged low noise amplifiers and single chip front end solutions through 18GHz.



NP25-20 Platform

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Combining surprising noise performance with high power switching in the same device creates a new toolset for customers to commercialize market leading products for a wide range of applications”

David Danzilio

The NP25-20 gallium nitride technology employs a source-coupled field plate for improved breakdown voltage and operates at a drain bias of 50 volts. This technology is fabricated on 100mm silicon carbide substrates with through-wafer vias for low inductance grounding. At X-band, NP25-20 demonstrates excellent transmit and receive performance with saturated output power of 10 watts/mm, 18 dB linear gain and 60% power added efficiency. When biased for noise performance at 10GHz, NP25-20 provides minimum noise figure of 0.8dB with 12dB associated gain. The combination of power density

and superb noise figure from NP25-20 enables high-performance single chip front ends without sacrificing transmit power or receiver sensitivity.

“The performance versatility of NP25-20 is unique for RF gallium nitride technology. A GaN MMIC platform with 10 watts/mm output power alone is an achievement. Combining surprising noise performance with high power switching in the same device creates a new toolset for customers to commercialize market leading products for a wide range of applications” said David Danzilio, Senior Vice President of WIN Semiconductors Corp.



Contact a WIN Semiconductors regional sales manager for information about sample kits and foundry access.

WIN Semiconductors Corp. at the 2023 International Microwave Symposium, booth #235

WIN Semiconductors Corp. will be showcasing its compound semiconductor RF and mm-Wave solutions in booth #235 at the 2023 International Microwave Symposium being held at the San Diego Convention Center, June 11th through June 16th.

For more information, visit WIN Semiconductors Corp. at <https://www.winfoundry.com/en-US/>

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About WIN Semiconductors Corp

WIN Semiconductors Corp. is the leading global provider of pure-play GaAs and GaN wafer foundry services for the wireless, infrastructure, and networking markets. WIN provides its foundry partners a diverse portfolio of Hetero-junction Bipolar Transistor and Pseudomorphic High Electron Mobility Transistor, Gallium Nitride High Electron Mobility Transistor, PIN Diode and Optical Device technology solutions that support leading edge products for applications from 50 MHz to 170 GHz and through light-wave. Custom products built by WIN Semiconductors Corp. are found in a vast array of markets, including smartphone, mobile infrastructure, 3-D sensing, optical communications, CATV, aerospace, defense, satellite, and automotive applications.

For over 20 years, WIN has provided foundry services from its state of the art, ISO9001/14001 certified 150mm GaAs facility headquartered in Taoyuan City, Taiwan. This multi-site manufacturing facility has approximately 3000 employees and provides WIN customers with a diverse array of device technology platforms and value-added services, including DC/RF product

testing, Cu wafer bumping and advanced package solutions for accelerated product development.

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