



Tower to Present at 2021 IMS Addressing the Future of Communication: From RF Switches for 5G and beyond to advanced mm-wave Satellite Communication and Quantum Computing

June 15, 2021

highlighting select Tower Semiconductor and Partners papers at IMS and RFIC June 2021

MIGDAL HAEMEK, Israel, - June 15, 2021 – Tower Semiconductor (NASDAQ/TASE: TSEM), the leading foundry of high-value analog semiconductor solutions, today announced technology papers at IMS 2021 and co-hosted RFIC conference addressing emerging and high-volume semiconductor markets; and in all cases demonstrating breakthrough figure of merit performances using Tower Semiconductor process technologies.

The selected publications use Tower Semiconductor's RF and millimeter-wave technologies to address the needs of communications markets including 5G, millimeter-wave RF, satellite communications, and quantum computing. These path-breaking works include novel technology demonstrations of low noise amplifiers; phased arrays and beam steering, wide frequency band RF components, millimeter-wave frequency capable switches & new switch configurations, full 5G demonstrations, and even cryogenic circuits with record phase noise for quantum computing. Paper titles, links to the abstracts and IMS/RFIC related schedules are listed below.

In addition, the Company will take part in the exhibitors' virtual talks, scheduled for Monday, June 21, 2021, from 09:00 to 18:00 at AUDITORIUM 6. Tower's presentation: **Accelerate beyond 5G with Tower**, will be presented by Dr. Amol Kalburge, Sr. Director, Analog Marketing and will address the 5G market rapid adoption, showcasing the Company's complete portfolio of solutions, both in silicon and in design enablement, to help catalyze this accelerating demand. The session will specifically cover Tower's RF Front End SOI and SiGe solutions and discuss how its revolutionary Phase Change Materials (PCM) switch technology is ready to enable a new class of innovative products.

For additional information on the IMS 2021 online event and complete program, please visit the event's website [here](#).

***List of papers, abstract links and IMS/RFIC presentation schedule:**

Novel Phase Change Material RF Switches for 5G & millimeter-wave:

- **We3D-2:** [Switch Stacking for OFF-State Power Handling Improvements in PCM RF Switches](#)

IMS TECHNICAL SESSIONS - Wednesday, 23 June 2021 AUDITORIUM 3 at 15:20

- **We3D-3:** [Multi-Throw SPNT Circuits Using Phase-Change Material RF Switches for 5G and Millimeter Wave Applications](#)

IMS TECHNICAL SESSIONS - Wednesday, 23 June 2021 AUDITORIUM 3 at 15:40

- **We3D-4:** [Wideband SPDT and SP4T RF Switches Using Phase-Change Material in a SiGe BiCMOS Process](#)

IMS TECHNICAL SESSIONS - Wednesday, 23 June 2021 AUDITORIUM 3 at 16:00

- **We3D-5:** [A 25–50GHz Phase Change Material \(PCM\) 5-Bit True Time Delay Phase Shifter in a Production SiGe BiCMOS Process](#)

IMS TECHNICAL SESSIONS - Wednesday, 23 June 2021 AUDITORIUM 3 at 16:20

Quantum Computing:

- **Th3F-4:** [A 1mW 0.1–3GHz Cryogenic SiGe LNA with an Average Noise Temperature of 4.6K](#)

IMS TECHNICAL SESSIONS - Thursday, 24 June 2021 AUDITORIUM 3 at 14:30

SiGe BiCMOS for 5G, Satellite Communications, mmWave phased arrays:

- **We1F1-44:** [A 256-Element Dual-Beam Dual-Polarization Ku-Band Phased-Array with 5 dB/K G/T for Simultaneous Multi-Satellite Reception](#)

IMS INTERACTIVE FORUM - Wednesday, 23 June 2021 AUDITORIUM 3, 13:00 – 15:00

- **We1F1-48:** [A Reconfigurable Dual-Polarized 1024-Element Ka-Band SATCOM Transmit Phased-Array with Large Scan Volume and +48dBW EIRP](#)

IMS INTERACTIVE FORUM - Wednesday, 23 June 2021 AUDITORIUM 3, 13:00 – 15:00

- **Th3D-1:** [A 5G 25–29GHz 64-Element Phased-Array with 49–52dBm EIRP, Integrated Up/Down-Converter and On-Chip PLL](#)

IMS TECHNICAL SESSIONS - Thursday, 24 June 2021 AUDITORIUM 3 at 13:30

- **Tu1F-5:** [A 10–110GHz LNA with 19–25.5dB Gain and 4.8–5.3dB NF for Ultra-Wideband Applications in 90nm SiGe HBT Technology](#)

RFIC TECHNICAL SESSIONS - Tuesday, 22 June 2021 AUDITORIUM 2 at 11:40

List of papers can also be accessed from the Company's website by using this [link](#).

For more information about Tower Semiconductor's RF technology platform, visit [here](#).

About Tower Semiconductor

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the leading foundry of high value analog semiconductor solutions, provides technology and manufacturing platforms for integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, mobile, infrastructure, medical and aerospace and defense. Tower Semiconductor focuses on creating positive and sustainable impact on the world through long term partnerships and its advanced and innovative analog technology offering, comprised of a broad range of customizable process platforms such as SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, non-imaging sensors, integrated power management (BCD and 700V), and MEMS. Tower Semiconductor also provides world-class design enablement for a quick and accurate design cycle as well as Transfer Optimization and development Process Services (TOPS) to IDMs and fabless companies. To provide multi-fab sourcing and extended capacity for its customers, Tower Semiconductor operates two manufacturing facilities in Israel (150mm and 200mm), two in the U.S. (200mm) and three facilities in Japan (two 200mm and one 300mm) through TPSCO. For more information, please visit: www.towersemi.com.

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Novel Phase Change Material RF Switches for 5G & millimeter-wave:

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Attachment

- [IMS 2021 PR Final](#)



Source: Tower Semiconductor