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## FOREWORD

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### Special Section on Microwave and Millimeter-Wave Technologies

It is my great honor and pleasure to announce the publication of the Special Section on Microwave and Millimeter-wave Technologies. This Special Section consists of extended papers from the 2022 Asia-Pacific Microwave Conference (APMC 2022) held on November 29–December 2, 2022 in Yokohama, Japan, in addition to original papers submitted to this Special Section.

Microwave and millimeter-wave technologies are now used everywhere and have become important fundamental technologies that support our daily lives. Such technologies continue to enhance the development of next generation wireless communications such as 5G and 6G from MHz to THz, while they now expand new emerging fields such as wireless power transfer, sensor networks, and a wide variety of applications. New theory, design, and related techniques of active and passive circuits as well as new system development are indispensable to further expansion of wireless applications. The purpose of this Special Section is to deliver the latest technical information to all the researchers/engineers contributing to the growth of these fields.

After careful reviews by the Editorial Committee, six full papers and four brief papers have been accepted for publication through the regular peer review process. The accepted papers cover the latest research works on active/passive components and systems from the microwave and millimeter-wave technical fields to the THz and optical regions. We have four excellent invited papers including the papers awarded the APMC 2022 Prize.

On behalf of the Editorial Committee, I would like to thank all authors for submitting their recent works to this Special Section. Furthermore, I would also like to express my deepest gratitude to the Editorial Committee members who have extensively contributed to this Special Section and to all anonymous reviewers for their devoted services. Finally, I would specially like to thank the members of the IEICE Publication Department.

Special Section Editorial Committee Members

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Masataka Ohira (Saitama University), Guest Editor-in-Chief

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**Masataka Ohira** (*Senior Member*) received the B.E., M.E., and D.E. degrees from Doshisha University, Kyoto, Japan, in 2001, 2003 and 2006, respectively. From 2006 to 2010, he was with ATR Wave Engineering Laboratories, Kyoto, Japan, where he was engaged in the research and development of millimeter-wave antennas and small smart microwave antennas. He was a Visiting Researcher in ATR Wave Engineering Laboratories for 2010–2011. In 2010, he joined Saitama University, Saitama, Japan, where he is currently an Associate Professor. His current research activities are concerned with the design and development of microwave/millimeter-wave filters and antennas. Dr. Ohira is a member of the Institute of Electrical Engineers (IEE) of Japan, European Microwave Association (EuMA), and IEEE, and served as the Technical Program Committee Chair of 2022 Asia-Pacific Microwave Conference (APMC 2022). He received the IEICE Young Engineer Award in 2005, IEEE AP-S Japan Chapter Young Engineer Award in 2012, IEEE MTT-S Japan Young Engineer Award, Michiyuki Uenohara Memorial Award in 2014, and IEICE Best Paper Award in 2018.

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