

LIST OF PATENTS

1. Man-Chung Wong, Chi-Seng Lam, Lei Wang, "A Hybrid STATCOM with wide compensation range and low dc-link voltage", Application No. 15/425,270, US Utility Patent, February 2017
2. Lei Wang, Man-Chung Wong, Chi-Seng Lam, "Design of a thyristor controlled LC compensator", Application No. 15/614,672, US Utility Patent, June 2017
3. Pui-In Mak, Zhicheng Lin, R. P. Martins, "Radio-Frequency-to-baseband function-reuse receiver with shared amplifiers for common-mode and differential-mode amplification", US Patent, No. 9,673,781, June 2017.
4. Pui-In Mak, Zhicheng Lin, R. P. Martins, "Gain-boosted N-path passive-mixer-first receiver with a single mixing step", US Patent, No. 9,680,448, June 2017.
5. Man-Chung Wong, Chi-Seng Lam, Yan-Zheng Yang, Wai-Hei Choi, Ning-Yi Dai, Yajie Wu, Chi-Kong Wong, Sai-Weng Sin, U-Fat Chio, Seng-Pan U, R. P. Martins, "Mixed signal controller", US Patent, No. 9,692,232, June 2017
6. Tianlan Chen, Cheng Dong, Jie Gao, Yanwei Jia, Pui-In Mak, Mang-I Vai, R. P. Martins, "Electronic module for real-time droplet-position sensing and driving in digital microfluidic system", US Patent, No. 9,751,083, September 2017.
7. Man-Chung Wong, Chi-Seng Lam, Lei Wang, "A hybrid grid connected power generation inverter system with power quality compensation", Application No. CN201710980413.4, Chinese Patent for Invention, October 2017
8. Tianlan Chen, Cheng Dong, Jie Gao, Yanwei Jia, Pui-In Mak, Mang-I Vai, R. P. Martins, "Electrode-voltage waveform for droplet-velocity and chip-lifetime improvements of digital microfluidic systems", US Patent, No. 9,808,800, November 2017.
9. Mo Huang, Yan Lu, Sai-Wang Sin, Seng-Pan U, R. P. Martins, "Limit cycle oscillation reduction for digital low dropout regulators", US Patent, No. 9,946,281, April 2018.
10. Tianlan Chen, Cheng Dong, Jie Gao, Yanwei Jia, Pui-In Mak, Mang-I Vai, R. P. Martins, "一種檢測和分析 DNA 的方法" (A method for testing and analyzing DNA), China Patent, No. CN107937485A, WO2019128081A1 (PCT), April 2018.
11. Tianlan Chen, Cheng Dong, Jie Gao, Yanwei Jia, Pui-In Mak, Mang-I Vai, R. P. Martins, "一種檢測和分析 DNA 的方法" International Patent, PCT/CN2018/088762, May 2018.
12. Lei Wang, Man-Chung Wong, Chi-Seng Lam, "Design of a Thyristor Controlled LC Compensator," US Utility Patent, No. 9,960,599, May 2018.
13. Man-Chung Wong, Chi-Seng Lam, Lei Wang, "A Hybrid STATCOM with Wide Compensation Range and Low DC-Link Voltage" US Utility patent, No. 10,003,195, June 2018.
14. Yanwei Jia, Haoran Li, Ren Shen, Cheng Dong, Tianlan Chen, Jie Gao, Pui-In Mak, R. P. Martins, "A Method for On-Chip Precise Sample Delivery in a Microfluidic System", International Patent, PCT/UMPT161-2018, July 2018.
15. Tianlan Chen, Cheng Dong, Jie Gao, Yanwei Jia, Pui-In Mak, Mang-I Vai, R. P. Martins, "Cooperative-electrode driving technique for droplet-velocity improvement of digital microfluidic systems", US Patent, No. 10,016,759, July 2018.

16. Yan Lu, Mo Huang, Seng-Pan U, R. P. Martins, "Reconfigurable bidirectional wireless charging transceiver", US Patent, No. 10,256,661, April 2019.
17. Ada Hang-Heng Wong, Chuxia Deng, Yanwei Jia, Haoran Li, Pui-In Mak, R. P. Martins, Yan Liu, Chi-Man Vong, Hang-Cheong Wong, PAK-Kin Wong, Haitao Wang, Heng Sun, "Droplet Microfluidics for Drug Screening", US Patent, No. 20190291112, September 2019.
18. Ka-Meng Lei, Pui-In Mak, Man-Kay Law, R. P. Martins, "Palm-size μ NMR relaxometer using a digital microfluidic (DMF) device and a semiconductor transceiver for chemical/biological diagnosis", US Patent, No. 10,436,726, October 2019.
19. Yanwei Jia, Liang Wan, Cheng Dong, Haoran Li, Tianlan Chen, Pui-In Mak, R. P. Martins, "Digital Microfluidics for Polymerase Chain Reaction", US Patent, No. 20190358636, November 2019.
20. Yanwei Jia, Ren Shen, Pui-In Mak, R.P.Martins, "增強核酸擴增反應的增強劑、試劑盒和進行核酸擴增反應的方法" (Enhancer for enhancing nucleic acid amplification reaction, kit and method for performing nucleic acid amplification reaction), China Patent, No. CN110628877A, December 2019.
21. Yanwei Jia, Haoran Li, Ren Shen, Cheng Dong, Tianlan Chen, Jie Gao, Pui-In Mak, R. P. Martins, "Apparatus and Method for On-Chip Microfluids Dispensing", WO Patent, WO2020024119A1, February 2020.
22. Chi-Seng Lam, Zhicong Huang, Pui-In Mak, R.P.Martins, "無線充電電路和系統" (Wireless charging circuit and system), China Patent, No. CN110957796A, April 2020.
23. Biao Wang, Sai-Weng Sin, Seng-Pan U, Franco Maloberti, R. P. Martins, "Single-Loop Linear-Exponential Multi-Bit Incremental Analog-to-Digital Converter", US Patent, No. 10,644,718 B1, May 2020
24. Jie Lin, Chenchang Zhan, Yan Lu, R. P. Martins, "多路輸出有源整流器結構和無線充電電路" (Multipath output active rectifier structure and wireless charging circuit), China Patent, No. CN111464051A, July 2020.
25. Zhicong Huang, Chi-Seng Lam, Pui-In Mak, R. P. Martins, "Wireless Charging Circuit and System", Chinese Patent for Invention, No. 201911279433.4, July 2020
26. Law Man Kay, Zhiyuan Chen, Mak Pui In, R. P. Martins, "Flipping-capacitor rectifier circuit", US Patent, No. 10,756,643, August 2020.
27. Jie Lin, Chenchang Zhan, Yan Lu, R. P. Martins, "雙路輸出有源整流器結構和無線充電電路" (Dual-output active rectifier structure and wireless charging circuit), China Patent, No. CN111490690A, August 2020.
28. Yanwei Jia, Haoran Li, Ren Shen, Cheng Dong, Tianlan Chen, Jie Gao, Pui-In Mak, R. P. Martins, "Apparatus and Method for On-Chip Microfluids Dispensing", US Patent, No. 20200254457, August 2020.
29. Yanwei Jia, Ren Shen, Pui-In Mak, R. P. Martins, "Enhancing Agent and Kit for Enhancing Nucleic Acid Amplification Reaction and Method for Performing Nucleic Acid Amplification Reaction", US Patent, No. 20200362400, November 2020.
30. Man-Chung Wong, Chi-Seng Lam, Lei Wang, "Hybrid grid-connected power generation inverter system equipped with power quality compensation", China Patent, No.CN107749639B, December 2020