Fully differential CMOS OpAmp with LTP CM-out control p. 369
Fully differential GA-CF CMOS OpAmp with input-CM feedback CM-out control p. 371
Fully differential CMOS OpAmp with R-R buffered resistive CM-out control p. 372
Fully Differential GA-CF-GA Configuration p. 375
Fully differential CMOS OpAmp with R-R resistive CM-out control p. 375
Conclusion p. 377
Fully Differential GA-GA-GA-GA Configuration p. 378
Fully differential CMOS OpAmp with switched-capacitor CM-out control p. 378
Conclusion p. 379
Problems and Simulation Exercises p. 380
References p. 385
Operational Floating Amplifiers (Ofa) p. 387
Introduction p. 387
Unipolar Voltage-to-Current converter p. 389
Unipolar single-transistor V-I converter p. 391
Unipolar OpAmp-gain-boosted accurate V-I converter p. 392
Unipolar CMOS accurate V-I converter p. 393
Unipolar bipolar accurate V-I converter p. 394
Unipolar OpAmp accurate V-I converter p. 395
Conclusion p. 396
Differential Voltage-to-Current converters p. 396
Differential simple V-I converter p. 396
Differential accurate V-I converter p. 397
Differential CMOS accurate V-I converter p. 398
Instrumentation Amplifiers p. 400
Instrumentation Amplifier (semi) with three OpAmps p. 400
Instrumentation Amplifier with a differential V-I converter for input sensing p. 401
Instrumentation Amplifier with differential V-I converters for input and output sensing p. 403
Instrumentation Amplifier with simple differential V-I converters for input and output sensing p. 404
Instrumentation Amplifier (Bipolar) with common-mode voltage range including negative rail voltage p. 406
Instrumentation Amplifier CMOS with common-mode voltage range including negative rail voltage p. 408
Instrumentation Amplifier simplified diagram and general symbol p. 409
Conclusion p. 410
Universal class-AB voltage-to-current converter design using an Instrumentation Amplifier p. 411
Universal V-I converter design with semi-Instrumentation Amplifier p. 411
Universal V-I converter design with real instrumentation amplifier p. 412
Conclusion p. 414
Universal class-A OFA design p. 414
Universal class-A OFA design with floating zenerdiode supply p. 414
Universal class-A OFA design with supply current followers p. 415
Universal class-A OFA design with long-tailed-pairs p. 417
Conclusion p. 422
Universal class-AB OFA realization with power-supply isolation p. 423
Universal floating power supply design p. 424
Conclusion p. 424
Universal Class-AB OFA design p. 425
Universal class-AB OFA design with total-output-supply-current equalization p. 426
Universal class-AB OFA design with current mirrors p. 429
Universal Class-AB OFA design with output-current equalization p. 430
Universal class-AB voltage-to-current converter with instrumentation amplifier p. 432
Conclusion p. 433
Problems p. 433
References p. 439
Biography p. 443
Index p. 445

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.