

INDEX

- SUBJECT INDEX
- ANALOG DEVICES PARTS INDEX

INDEX

Subject Index

A

- AA Alkaline Battery Discharge Characteristics, 10.14
- Absolute value amplifier, 3.29
- Active and Passive Electrical Wave Catalog, 2.42
- AD185x, multibit sigma-delta DAC, 4.11
- AD260/AD261:
 - digital isolators
 - key specifications, 10.38
 - schematic, 10.38
- AD820, op amp, 3.8-9
- AD1819B SoundPort, codec, for audio/modem, 9.37-38
- AD1836, mixed-signal IC, codec, 9.38-39
- AD1852, sigma-delta audio DAC, 3.17
- AD1853:
 - dual 24-bit DAC, 4.12
 - sigma-delta audio DAC, 3.17
- AD1854, sigma-delta audio DAC, 3.17
- AD1877:
 - 16-bit sigma-delta ADC
 - characteristics, 3.16
 - FIR filter characteristics, 3.17
- AD189x, sample rate converters, 6.35
- AD77xx, 24-bit sigma-delta ADC, low frequency/high resolution, filters, 3.17
- AD77XX-Series Data Sheets, 3.33
- AD773x, 24-bit ADC, with PGA, 1.5
- AD977x, 14-bit TxDAC, 4.6
- AD983x, 10-bit DDS system, 4.16
- AD985x, 14-bit TxDAC, 4.6
- AD5322:
 - 12-bit dual DAC
 - block diagram, 8.18
 - power-down feature, 8.17
 - serial interface, 8.18-19
- AD5340:
 - 12-bit parallel input DAC
 - block diagram, 8.10
 - interface diagram, 8.12
 - wait states, 8.11
- AD6521, voiceband/baseband mixed-signal CODEC, 9.21-22
- AD6522, DSP-based baseband processor, 9.21-22
- AD6523, Zero-IF Transceiver, 9.23
- AD6524, Multi-Band Synthesizer, 9.23
- AD6600, diversity receiver ADC, 9.30
- AD6622, quad digital TSP, 9.30-31
- AD6624, quad digital RSP, 9.30-31
- AD6640:
 - 12-bit ADC
 - with MagAmps, 3.24-25
 - multitone testing, diagram, 2.30
- AD6644, 14-bit ADC, 9.30-31
- AD7722, 16-bit ADC, 10.15
- AD7725:
 - 16-bit sigma-delta ADC
 - with on-chip PulseDSP filter, 6.2
 - programmable digital filter, 9.40-42
 - block diagram, 9.41
 - Systolix PulseDSP, 9.41
 - sigma-delta ADC, with Systolix PulseDSP processor, 3.19-20
- AD7730, sigma-delta ADC, 10.15
- AD7731, sigma-delta ADC, 10.15
- AD7853/7853L:
 - 12-bit ADC, block diagram, 8.16
 - serial ADC interface, 8.17
- AD7853L:
 - serial clock, 8.15-17
 - output timing, 8.16
- AD7854/AD7854L:
 - 12-bit ADC
 - block diagram, 8.5
 - interface diagram, 8.6-7
 - key interface timing comparisons, 8.5-6
- AD7858/59:
 - 12-bit ADC, 3.8-9
 - SAR ADC, circuit, 3.8-9
- AD7892, 12-bit SAR ADC, 10.15
- AD9042:
 - 12-bit ADC, NPR, diagram, 2.32
 - 12-bit wideband ADC, high SFDR, 2.27-28
- AD9201, 10-bit, dual-channel ADC, 8.22-23
- AD9220:
 - 12-bit ADC, SINAD and ENOB, diagram, 2.25
 - 12-bit CMOS ADC, latency or pipeline delay, 3.27
- AD9221, 12-bit CMOS ADC, latency or pipeline delay, 3.27
- AD9223, 12-bit CMOS ADC, latency or pipeline delay, 3.27
- AD9288-100, 8-bit dual ADC, functional diagram, 3.32
- AD9410, 10-bit flash ADC, interpolation, diagram, 3.23
- AD9761, 10-bit, dual channel DAC, 8.22-23
- AD9772:
 - 14-bit interpolating DAC, 9.31
 - 14-bit oversampling interpolating TxDAC, 4.9-10
 - block diagram, 4.10
 - 14-bit TxDAC, 4.6

INDEX

- diagram, 4.6
- SFDR, 2.39-40
- TxDAC 14-bit DAC, 9.30-31
- AD9850, DDS/DAC synthesizer system, diagram, 4.16
- AD73322:
 - block diagram, 8.19-20
 - simplified interface timing, 8.21
- AD73422, dspConverter, specifications, 8.22
- AD20msp430:
 - baseband processing chipset, 9.21-23
 - components, 9.22-23
 - construction, 9.21
- Adams, R.W., 3.33, 3.34
- Adaptive filter, 6.35-39
 - basic concept, 6.35-36
 - speech compression and synthesis, 6.36
- ADC, 1.2
 - 1-bit, comparator, 3.11
 - 3-bit unipolar, transfer characteristics, 2.8-9
 - 10-bit, theoretical NPR, 2.32
 - 11-bit, theoretical NPR, 2.32
 - 12-bit
 - pipelined architecture, diagram, 3.7
 - theoretical NPR, 2.32
 - 24-bit, with PGAs, 1.5
 - analog bandwidth, 2.25-26
 - analog input, 2.10
 - bit-per-stage, 3.1
 - boot memory select, 8.2
 - communications application, SFDR, 2.26
 - conversion complete output, 8.1-2
 - conversion process, 2.2
 - convert start, 8.1-2
 - data memory address, 8.4
 - data memory select, 8.2
 - digital output, grounding, 10.22-24
 - DNL errors, 2.22
 - DSP applications, 3.1-35
 - high speed architectures, 3.2
 - sigma-delta, 3.2
 - successive approximation, 3.1-9
 - types, 3.1
 - dynamic performance, quantification, 2.21
 - ENOB versus frequency, diagram, 2.26
 - equivalent input referred noise, 2.20-21
 - excess DNL, and missing codes, 2.12-13
 - flash, 3.1
 - high speed, pipelined, latency, 3.6, 3.8
 - ideal 12-bit
 - FFT, noise floor, 2.19
 - SFDR sampling clock to input
 - frequency ratio, 2.18
 - ideal, distortion and noise, 2.15-19
 - ideal N-bit
 - dynamic performance analysis, diagram, 2.17
 - errors, 2.15
 - quantization noise, diagram, 2.16
 - input/output memory select, 8.2
 - low power/low voltage, design issues, 3.1
 - memory address bus, 8.2
 - memory read, 8.2
 - memory select line, 8.2
 - non-ideal 3-bit, transfer function, diagram, 2.13
 - non-monotonic, 2.12
 - normalized signal to reference, 2.10
 - output, quantization, 2.7
 - output enable/read, 8.2
 - oversampling ratio, 3.11
 - pipelined, 3.1
 - latency or pipeline delay, 3.25
 - timing, diagram, 3.7
 - practical
 - distortion and noise, 2.19-20
 - noise and distortion sources, 2.20
 - processor interrupt request line, 8.1-2
 - program memory select, 8.2
 - quantization error, 2.9-10
 - quantization uncertainty, 2.9-10
 - quantized output, 2.9, 2.10
 - ripple, 3.1
 - sampling clock jitter, 2.33
 - sampling frequency, versus antialiasing characteristics, 2.5
 - SAR, 3.3
 - external high frequency clock, 3.6
 - fundamental timing, 3.5
 - resolutions, table, 3.5
 - typical timing, 3.5
 - sigma-delta, 3.1-2, 3.9-21
 - circuitry, 3.9-10
 - as oversampling converter, 2.6
 - programmable digital filter, 9.40-42
 - VLSI technology, 3.9
 - see also* Sigma-delta ADC
 - sign-magnitude, use, 2.10
 - single-tone sinewave FFT testing, 2.18
 - SNR decrease with input frequency, 2.33
 - static transfer functions, DC errors, 2.7-14
 - subranging, 3.1
 - pipelined converter, 3.6
 - successive approximation, 3.1-9
 - basic, 3.3
 - resolutions, table, 3.5
 - see also* SAR ADC
 - thermal noise, 2.20-21
 - Address bus, DAC, 8.9
 - ADI DSP collaborative, 7.54

- ADI modified Harvard architecture, in microprocessor, 7.6-7
- ADI SHARC floating point DSPs, 7.26-30
- ADMC300, motor controller, 9.34
- ADMC331, motor controller, 9.34
- ADMC401, motor controller, 9.34
- ADMCF326, motor controller, 9.34
- ADMCF328:
 - motor controller, 9.34
 - block diagram, 9.35
- ADP1148:
 - synchronous buck regulator, 10.46-50
 - circuit, 10.47-48
 - driving ADP3310
 - circuit diagram, 10.49
 - waveforms, 10.50
 - filtered output, 10.49
 - output waveform, 10.47-48
- ADP3310, linear LDO regulator, 10.47, 10.49-50
- ADPCM, adaptive pulse code modulation, 1.2
- ADSL, 9.11-16
 - advantages, 9.12-13
 - block diagram, 9.13
 - data transmission capability, 9.15
 - definition, 9.12
 - installation advantages, 9.14
 - modem, block diagram, 9.15
 - modems, three-channel approach, 9.13-14
- ADSP-21ESP202, codec, embedded speech processing, 9.36-37
- ADSP-21mod870:
 - digital modem processor, 9.10
 - expanding central office capability, 9.9
 - in voice-based RAS modem, 9.8-9
- ADSP-21xx:
 - 16-bit fixed point DSP core, 7.6-23
 - arithmetic, signed fractional format, 7.23-24
 - assembly code for FIR filter, 1.8
 - buses, 7.10-11, 7.11
 - computational units, 7.11-13
 - core architecture
 - diagram, 7.9
 - summary, 7.10
 - data address generators and program sequencer, 7.13-14
 - digital filter example, 7.7-10
 - DSP optimized, 7.9
 - FIR filter assembly code, 7.8
 - fixed-point DSP, 7.7-8
 - FIR filter, 6.11-12
 - assembly code, 6.13
 - internal buses, 7.10-11
 - internal peripherals, powerdown, 7.18
 - memory-write cycle timing diagram, 8.7-8
 - on-chip peripherals, 7.14-23
 - byte DMA port, 7.17
 - internal DMA, 7.17
 - SPORTs, 7.16
 - read-cycle, timing diagram, 8.3
 - serial ports
 - block diagram, 8.13
 - features, 8.13
 - operation, 8.12-14
 - SPORTs, 7.16
- ADSP-218x:
 - architecture, 7.15
 - byte memory interface, 7.17
 - DSP, EZ-ICE, 7.49
 - implementation, multi-channel VOIP server, diagram, 9.11
 - interface with CODEC, 8.20-22
 - internal direct-memory-access port, 7.16
 - memory-mapped peripherals, 7.16
 - modified Harvard architecture, 7.16
 - multiple core devices, 7.22
 - on-chip peripherals, memory interface, 7.15
 - roadmap, 7.22
 - VisualDSP software, 7.52
- ADSP-219x:
 - architecture, 7.19
 - code compatibility with ADSP-218x, 7.19
 - key specifications, 7.20
 - roadmap, 7.23
 - VisualDSP software, 7.52
- ADSP-2100, core in ADSP-218x architecture, 7.15
- ADSP-2100 EZ-KIT Lite Reference Manual, 7.55, 8.25
- ADSP-2100 Family EZ Tools Manual, 7.55, 8.25
- ADSP-2100 Family Users Manual, 3rd Edition, 7.55, 8.25
- ADSP-2106x:
 - characteristics, 7.28
 - external ports, 7.29
 - host interface, 7.29
 - I/O processor, 7.29
 - IEEE Standard P1149.1 Joint Test Action Group standard, 7.30
 - instruction set, 7.28
 - internal memory, 7.30
 - multiprocessing systems, 7.29
 - on-chip DMA, 7.30
 - SHARC processors, 7.26-27
 - Super Harvard Architecture, 7.26-28
- ADSP-2106x SHARC EZ-KIT Lite Manual, 7.55, 8.25
- ADSP-2106x SHARC User's Manual, 2nd Edition, July 1996, 7.55, 8.25
- ADSP-2116x:

INDEX

- 32-bit DSP, second-generation, 7.31
- SIMD core architecture, 7.31-36
 - diagram, 7.31
- SIMD DSP, 7.33
- SIMD features, 7.32
- ADSP-2189M:
 - 69-tap FIR filter, design example, 6.22
 - 75 MIPS DSP
 - filter subroutine, 6.12
 - throughput time, 6.28
 - 75 MIPS processor, 6.20
 - EZ-KIT Lite, 7.47
 - fixed-point DSP, 6.1
 - key timing specifications, 8.9-10
 - parallel read timing, 8.4, 8.7
 - parallel write interface, timing specifications, 8.11
 - serial port, receive timing diagram, 8.14-15
 - system interface, full memory mode, diagram, 8.24
- ADSP-21000 Family Application Handbook, 5.25, 6.40
- ADSP-21060L SHARC, DSP output rise and fall times, 10.58
- ADSP-21065L:
 - connected to ADC and DAC, 8.22-23
 - EZ-KIT Lite, 7.48
 - SHARC, DSP benchmarks, 7.34
- ADSP-21065L SHARC EZ-LAB User's Manual, 7.55, 8.25
- ADSP-21065L SHARC User's Manual, Sept. 1, 1998, 7.55, 8.25
- ADSP-21160:
 - 16-channel audio mixer, SIMD architecture, 9.40
 - 32-bit SHARC, key features, 7.32
 - DSP, BGA package locations, 10.54-55
 - integrated peripherals, 7.32
 - SIMD/multiple channels, DSP benchmarks, 7.34
 - SISD, DSP benchmarks, 7.34
- ADSP-21160 SHARC DSP Hardware Reference, 7.55, 8.25
- ADSP-21160M, EZ-KIT Lite, 7.47
- ADSP-TS001:
 - features, 7.40
 - TigerSHARC
 - 16-bit fixed-point DSP, 5.18-19
 - architecture, 7.36-44
 - benchmarks, 7.44
 - diagram, 7.38
- ADuM1100A, digital isolator, 10.36-37
- Advanced mobile phone service *see* AMPS
- Agilent HCPL-7720, 10.36
- Aiken, Howard, 7.7
- Alfke, P., 10.14
- Aliasing, 2.2-3
 - frequency domain, representation, 2.3
- All-pole lattice filter, parameters, from speech samples, 6.38-39
- Alternate framing mode, 8.14
- Aluminum electrolytic capacitor, 10.40-41
- Amplifier Applications Guide (1992), 2.43, 3.35
- Amplitude shift keying, POTS, 9.2
- Analog bandwidth, ADC, 2.25-26
- Analog cellular basestation, 9.27-28
- Analog Devices Inc., 16-bit DSP, roadmap, 7.22
- Analog Devices' Motor Control Website, 9.44
- Analog filter:
 - frequency response, 6.4
 - popular types, 6.24, 6.27-28
 - requirements, 6.3
 - for oversampling, 4.10
 - versus digital, 6.3
- Analog front end, 8.19-22
- Analog receiver design, 9.26-27
- Analog return current, 10.16-17
- Analog signal:
 - characteristics, 1.1-2
 - discrete time sampling, 2.2-7
 - diagram, 2.1
 - normalized ratio, 2.9
 - quantization, 2.2
 - diagram, 2.1
 - sampling, aliasing, 2.3
- Analog superheterodyne receiver, 9.27
- Andreas, D., 3.33
- ANSI/IEEE Standard 754-1985, floating point arithmetic, 7.24-25
- Anti-imaging filter, 6.2
- Antialiasing filter, 6.2
 - baseband sampling, oversampling, 2.5
 - requirements, relaxing, 2.6
 - specifications, 2.4-5
- Aperture delay, 2.33-35
- Aperture jitter, 2.33-35, 10.25
- Apex-ICE, 7.48-49
 - USB simulator, 7.49
- Application of Digital Signal Processing in Motion Control Seminar (2000), 9.44
- Architecture:
 - computer
 - ADI modified Harvard, 7.6
 - Harvard, 7.6-7
 - Von Neumann, 7.6
- Arithmetic logic unit:
 - in DSP, 7.4
 - features, 7.11
- Armstrong, Edwin H., Major, 9.27

- The ARRL Handbook for Radio Amateurs, 4.17
 Asymmetric digital subscriber line *see* ADSL
 ADSL
 Audio system, synthesized, 1.3
 Auto-correlation, 1.3
 Automotive/home theater, using 32-bit SHARC, 9.39
- B**
- Backplane ground plane, 10.18
 Baines, Rupert, 9.43
 Baker, Bonnie, 10.34
 Ball grid array, 10.54
 Band filter, 10.46
 Bandpass filter:
 design, 6.23-24
 from lowpass and highpass filters, 6.24
 Bandpass sampling, 2.6-7
 Bandpass sigma-delta ADC, undersampling, 3.18
 Bandstop filter:
 design, 6.23-24
 equivalent impulse response, 6.23
 from lowpass and highpass filters, 6.24
 Baseband data signal, POTS, 9.2
 Baseband sampling:
 antialiasing filter, 2.4-6
 oversampling, 2.5
 Nyquist zone, 2.6
 Basestation, block diagram, 9.30
 Basis function, 5.3
 correlation, DFT, 5.4
 BDC binary coding, data converters, 2.10
 Bennett, W.R., 2.42
 Bessel filter, 6.24, 6.27-28
 Best straight line, 2.11-12
 Best, R.E., 4.17
 Bilinear transformation, 6.28
 Binary ADC:
 3-bit
 diagram, 3.29
 input and residue waveforms, 3.29
 single-stage, diagram, 3.28
 Binary coding, data converters, 2.10
 Binary DAC, 5-bit, architectures, diagram, 4.4
 Bingham, John, 9.43
 Bipolar converter, types, 2.10
 Biquad, in IIR filter, 6.25
 Bit reversal:
 for 8-point DFT, 5.14
 algorithm, 5.11-14
 Bit-per-stage ADC, 3.27-32
 diagram, 3.27
 Blackman window function, 5.22-23
 Blackman, R.B., 2.43
 Block floating point, in FFT, 5.17
 Boot memory select, ADC, 8.2
 Bordeaux, Ethan, 7.55, 10.1
 Boser, B., 3.33
 Boyd, I., 9.43
 Branch target buffer, 7.39, 7.41
 Brannon, Brad, 9.43
 Brokaw, Paul, 10.34
 Bryant, James, 2.1, 3.1, 3.9, 4.1, 10.15, 10.34
 Buck regulator, 10.46-50
 Buffer register, 10.22-23
 Bus:
 data memory address, 7.10
 data memory data, 7.10
 data transfer, 7.10-11
 internal result, 7.10-13
 program memory address, 7.10
 program memory data, 7.10
 Buss wire, 10.16
 Butterfly, 5.11-12
 DIF FFT, 5.15
 DIT FFT, 5.12
 Butterworth filter, 4.9, 6.24, 6.27-28
 characteristics, 2.5
 Byrne, Mike, 10.15
- C**
- Cage jack, 10.16
 Calhoun, George, 9.43
 Capacitive coupling, doublet glitch, 2.37
 Capacitor:
 equivalent circuit, pulse response, 10.43
 finite ESR, 10.42-43
 parasitic elements, 10.43
 types, 10.40-42
 Card entry filter, 10.46
 Carrier, 2.23
 Cascaded biquads, 6.25
 Cauer filter, 6.27-28
 CCD image processing, 1.5
 CDMA, digital telephone system, 9.17
 Cellular phone:
 basic system, diagram, 9.16
 frequency reuse, diagram, 9.16
 Ceramic, capacitor, 10.40-42
 Charpentier, A., 3.33
 Chebyshev filter, 1.6, 6.2-3, 6.24, 6.27-28
 Chestnut, Bill, 10.39
 Chip select, DAC, 8.9
 Circular buffering:
 DSP application, 7.5
 DSP requirement, 7.5
 in FIR filter, 6.10
 FIR filter, 7.5
 in FIR filter, output calculation, 6.11
 FIR filter pseudocode, in DSP, 7.8

INDEX

- Clelland, Ian, 10.56
- Clock distribution:
 - end-of-line termination, diagram, 10.62
 - source terminated transmission lines, diagram, 10.63
- Cluster multiprocessing, 7.34
 - SHARC family, 7.36
- CMOS IC, secondary I/O ring, diagram, 10.9
- CMOS IC output driver, configuration, 10.3-4
- Code division multiple access *see* CDMA
- Code transition noise, and DNL, effects, 2.14
- Codec, 1.5, 8.1
 - interfacing, 8.19-22
 - sampling rate, 8.20
 - voiceband/audio applications, 9.36-40
- CODEC and DSP, in voiceband and audio, 9.36-40
- COder/DECoder, 8.1
- Coding, types, 2.10
- Coleman, Brendan, 2.43
- Colotti, James J., 2.43
- Comfort noise insertion, 9.20
- Communications, external port, versus link port, 7.35
- Computational unit:
 - arithmetic logic, 7.11
 - multiplier-accumulator, 7.11-12
 - shifter, 7.11-12
- Computer, general purpose, Von Neumann architecture, 7.6
- Computing applications:
 - CISC, 7.2
 - data manipulation, 7.1
 - mathematical calculation, 7.1
 - RISC, 7.2-3
 - tabular summary, 7.1
- Concentrator, 9.7
- Connelly, J.A., 10.34
- Convert start, ADC, 8.1-2
- Convolution, 1.3
 - loop, 6.12
- Convolving, filter responses, 6.23
- Cooley, J.W., 5.10, 5.25
- Cosier, G., 9.43
- Coussens, P.J.M., 9.43
- Crystal Oscillators, 10.34

- D**
- DAC, 1.2
 - 3-bit switched capacitor, diagram, 3.4
 - 3-bit unipolar, transfer characteristics, 2.8-9
 - address bus, 8.9
 - binary weighted, 4.1
 - in CD player, use of interpolation, 6.33
 - chip select, 8.9
 - conversion process, 2.2
 - current output, diagram, 4.2
 - in direct digital synthesis, 4.9
 - distortion, specification, 2.38
 - DNL errors, 2.22
 - double-buffered, latches, 4.7
 - DSP applications, 4.1-17
 - dynamic performance, 2.35-41
 - high-speed, 4.9
 - interpolating, 4.9-10
 - interrupt request, 8.9
 - ladder networks, 4.1
 - logic, 4.7-8
 - low distortion, architectures, 4.3-7
 - memory select, 8.9
 - midscale glitch, diagram, 2.37
 - monotonicity, 2.12
 - non-ideal 3-bit, transfer function, diagram, 2.13
 - non-monotonic, and DNL, 2.12
 - output, quantization, 2.7
 - reconstruction, output, 2.41
 - segmented voltage, diagram, 4.3
 - settling time, applications, 2.38
 - sigma-delta, 4.11-12
 - 1-bit, in CD players, 4.9
 - sin(x)/x frequency rolloff, 2.41
 - static transfer functions, DC errors, 2.7-14
 - structures, 4.1-3
 - transitions, with glitch, 2.36
 - voltage output, Kelvin divider, 4.1
 - write, 8.9
- Damping resistor:
 - EMI/RFI minimization, 10.60
 - series, for SHARC DSP interconnections, 10.60
- DashDSP, motor controllers, 9.34-35
- Data address generator:
 - features, 7.13
 - mode status register, 7.13
- Data converter:
 - analog bandwidth specification, 2.26
 - applications, 2.8
 - DC errors, 2.10, 2.10-11
 - DC performance, 2.15
 - gain error, diagram, 2.11
 - integral and differential non-linearity
- distortion effects, 2.22-23
 - offset error, diagram, 2.11
 - sampling and reconstruction systems, 2.8
- Data manipulation, by computer, 7.1
- Data memory address, ADC, 8.4
- Data memory address bus, 7.10
- Data memory buffer, circular, 7.5
- Data memory data bus, 7.10

- Data memory select, ADC, 8.2
- Data reduction algorithms, in signal processing, 1.2
- Data sampling, 2.1-44
 - block diagram, 2.1
 - distortion and noise, 2.15-19
 - FFT, 2.1-2
 - quantization error, 3.10
 - quantization noise, 3.10
 - real-time system, 2.1
- Data scrambling, in sigma-delta DAC, 4.11
- Data-flow multiprocessing, 7.34
- Dattorro, J., 3.33
- DC error, types, 2.10
- DDS, 4.12-16
 - basic architecture, 4.13
 - code-dependent glitches, 2.38
 - DAC, 4.3
 - distortion, contributors, 2.39
 - problems, 4.13
 - system, flexible, diagram, 4.14
 - tuning equation, 4.15
- Dead time, DAC settling time, 2.35
- Decimation, 3.10, 3.11
 - multirate filter, diagram, 6.31
- Decimation-in-frequency, DIF, 5.13-14
- Decimation-in-time, DIT, 5.11
- Decoupling, localized, diagram, 10.52
- Decoupling points, diagram, 10.24
- Deglitching, 3.25
- Del Signore, B.P., 3.33
- Delta phase register, 4.14
- Designing for EMC (Workshop Notes), 10.65
- DFT, 5.1-8
 - 8-point, 5.9, 5.12
 - using DIT, 5.12-13
 - applications, 5.2
 - basis functions, 5.3
 - butterfly operation, 5.11-12
 - characteristics, 5.4
 - complex, 5.5
 - equations, 5.6
 - from real, 5.7
 - input/output, 5.6
 - real/imaginary values, 5.7
 - equations, real versus imaginary, 5.8
 - expansion, 5.9-10
 - FIR filter, 6.15
 - fundamental analysis equation, 5.3
 - inverse, 5.5
 - output spectrum, 5.3
 - real, 5.5
 - input/output, 5.6
 - real versus imaginary
 - equations, 5.7-8
 - output conversion, 5.8
 - relationship, 5.7-8
 - sampled time domain signal, 5.3
 - versus FFT, 5.11
- DIF:
 - butterfly, 5.13-14
 - decimation-in-frequency, 5.13-14
- Differential non-linearity:
 - DNL, 2.12
 - from encoding process, 2.22
- DIGI-KEY, 10.56
- Digital cellular basestation, 9.28-31
- Digital cellular basestations, advantages, 9.28
- Digital cellular telephone, 9.16-20
 - GSM system, 9.18-20
- Digital communications services *see* DCS
- Digital correction, for subranging ADC, 3.24
- Digital filter, 6.1-39
 - coefficient values, 6.1
 - design procedure, 6.1
 - diagram, 6.2
 - filter coefficient modification, 6.35
 - frequency response, 6.4
 - general equation, 6.25-26
 - lattice, 6.5
 - moving average, 6.5-10
 - programming ease in ADSP-21xx, 7.7-8
 - real-time, 6.1, 6.3
 - processing requirements, 6.4
 - requirements, 6.3
 - types, 6.5
 - versus analog, 6.3
- Digital filtering, 3.10
- Digital FIR filter, 1.6
- Digital isolation:
 - by LED/photodiode optocouplers, 10.36
 - by LED/phototransistor optocouplers, 10.35
- Digital isolation technique, 10.35-38
- Digital isolator, 10.36-38
- Digital mobile radio, standards, 9.18
- Digital receiver, characteristics, 9.27-28
- Digital return current, 10.16-17
- Digital signal, characteristics, 1.1-2
- Digital Signal Processing Applications Using the ADSP-2100 Family, 5.25, 6.40, 9.43
- Digital signal processor *see* DSP
- Digital system, with ADC, quantization noise, 2.31
- Digital telephone system, CDMA and TDMA, 9.17
- Digital transmission, using adaptive equalization, 6.37
- Direct data scrambling, in sigma-delta DAC, 4.11-12
- Direct digital synthesis *see* DDS
- Direct form 1 biquad filter, diagram, 6.26

INDEX

- Direct IF to digital conversion, 2.6-7
- Direct memory access, DSP controller, 8.22
- Direct-memory-access *see* DMA
- Discontinuous transmission, 9.18-19, 9.20
- Discrete Fourier transform *see* DFT
- Discrete time Fourier series, 5.1
- Discrete time sampling, 2.2
 - analog signal, 2.2-7
- Distortion, DAC performance, 2.35-41
- Distortion and noise, practical ADCs, 2.19-20
- DIT:
 - decimation-in-time, 5.11
 - FFT, algorithm, 5.11, 5.13
- Dither signal, 2.18
- DMA, internal, in ADSP-21xx, 7.17
- DNL:
 - ADC and DAC errors, 2.22
 - converter error, definition, 2.12
 - differential non-linearity, 2.12
- Doernberg, Joey, 2.43
- Double precision, 64-bit, floating point arithmetic, 7.25
- Double-buffered DAC:
 - advantages, 4.7-8
 - diagram, 4.8
 - latches, 4.7
- Doublet glitch, 2.37
- DSP, 1.2, 7.1-3
 - 16-bit, fixed-point family, history, 7.20-22
 - 32-bit, second-generation, 7.31
 - ADSP-21xx, characteristics, 1.6-8
 - analog versus digital, 1.4-5
 - options, diagram, 1.5
 - applications, 9.1-44
 - summary, 9.42
 - arithmetic
 - fixed-point versus floating point, 7.23-26
 - fixed-point versus floating-point, 7.23-26
 - characteristics, 7.2
 - code, compilation, 7.45
 - and computer applications, 7.1
 - core voltage, 10.2
 - development tools, 7.46
 - dot-product, 7.2
 - efficiency, 7.18
 - evaluation and development tools, 7.45-54
 - VisualDSP and VisualDSP++, 7.51-54
 - fundamental mathematical operation, 7.3
 - grounding, 10.29-30
 - hardware, 7.1-55
 - high density, localized decoupling, 10.53-55
 - interfacing, 8.1-25
 - interfacing I/O ports, analog front ends, and CODECS, 19-22
 - internal phase-locked loops, grounding, 10.29-30
 - kernel, 7.1-2
 - optimization, 7.6
 - output rise and fall times, diagram, 10.58
 - parallel interfacing, 8.1-12
 - block diagram, 8.8
 - reading data from memory-mapped peripheral ADCs, 8.1-7
 - to external ADC, block diagram, 8.2
 - writing data to memory-mapped DACs, 8.7-12
 - practical example, 1.5-8
 - requirements, 7.3-6
 - circular buffering, 7.5
 - dual operand fetch, 7.4-5
 - extended precision, 7.4
 - fast arithmetic, 7.4
 - summary, 7.6
 - zero overhead looping, 7.5-6
 - sampled data, block diagram, 2.1
 - serial interfacing, 8.12-19
 - serial ADC, 8.14-19
 - serial DAC, 8.17-19
 - system interface, 8.23-24
 - using VLSI, 1.4
 - voiceband/audio applications, 9.36-40
 - DSP Designer's Reference (DSP Solutions), 7.55, 8.25
 - DSP Navigators: Interactive Tutorials about Analog Devices' DSP
 - Architectures, 7.55
 - DSP Navigators: Interactive Tutorials about Analog Device's DSP
 - Architectures, 8.25
 - Dual operand fetch:
 - DSP application, 7.4-5
 - DSP requirement, 7.4-5
 - Duracell MN1500 "AA" alkaline battery, discharge characteristics, 10.2
 - Dynamic performance analysis, ideal N-bit ADC, 2.17
 - Dynamic range compression, 1.4

E

 - Echo, voiceband telephone connection, 9.2
 - Eckbauer, F., 3.33
 - EDN's Designer's Guide to Electromagnetic Compatibility, 10.65
 - Edson, J.O., 2.42, 3.34
 - Effective aperture delay time, 2.34
 - diagram, 2.35
 - Effective number of bits *see* ENOB
 - Eichhoff Electronics, Inc., 10.57
 - Electrolytic capacitor:

- characteristics, 10.40-41
- impedance versus frequency, diagram, 10.44
- Elliptic filter, 6.24, 6.27-28
 - characteristics, 2.5
- Embedded speech processing, 9.36-37
- EMC Design Workshop Notes, 10.56
- End point, 2.11-12
- Engelhardt, E., 3.33
- ENOB, 2.21, 2.24-25, 3.10
 - ADC, effective resolution, 3.10
 - definition, 3.10
- Equiripple FIR filter design, program inputs, 6.19-20
- Equivalent input referred noise, thermal noise, 2.20-21
- Error voltage, 10.17
- Euler's equation, 5.3
- Extended precision:
 - DSP application, 7.4
 - DSP requirement, 7.4
 - floating point arithmetic, 7.25
- External clock jitter, 10.25
- External port, versus link port, in communications, 7.35
- EZ-ICE, in-circuit simulator, 7.48
- EZ-KIT Lite, 7.45-46, 7.53
- EZ-LAB, evaluation board, 7.45

- F**
- Fair-Rite, 10.44-46
- Fair10.Rite Linear Ferrites Catalog, 10.56
- Fairchild 74VCX164245, 16-bit low voltage dual logic
 - translators/transceivers, 10.10-13
- Faraday shield, 10.22
- Fast arithmetic:
 - DSP application, arithmetic logic unit, 7.4
 - DSP requirement, 7.4
- Fast Fourier transform *see* FFT
- Fast logic, and analog circuits, 10.59
- FDMA:
 - frequency division multiple access, 1.2
 - telephone system, 1.2
- FDMA communications link, NPR testing, 2.30
- Ferguson, P. Jr., 3.34
- Ferguson, P.F. Jr., 3.33
- Ferrite, 10.44
 - beads, 10.16, 10.20, 10.29, 10.30
 - impedance, 10.45-46
 - suitable for high-frequency filters, 10.45
- FFT, 2.1, 5.1-25, 5.9-17
 - 8-point DIF, 5.15
 - 8-point DIT algorithm, 5.13
 - and DFT, 5.10
 - DIF, 5.13-14
 - FIR filter, 6.15
 - first Nyquist zone aliases, 2.4
 - floating point DSP, 5.18
 - frame-based systems, 5.18
 - hardware implementation and benchmarks, 5.17-18
 - noise floor determination, 5.19
 - processing gain, 2.18-19, 5.20
 - processor, 5.17
 - radix-2, 5.16
 - radix-2 complex, hardware benchmark comparisons, 5.18
 - radix-4, DIT butterfly, 5.16-17
 - real-time
 - considerations, 5.20
 - DSP requirements, 5.18-20
 - processing, 5.19
 - sinewave
 - integral number of cycles, 5.21
 - nonintegral number of cycles, 5.22
 - spectral leakage and windowing, 5.21-24
 - twiddle factors, 5.9-10
 - versus DFT, 5.11
- Film capacitor, 10.40-42
- Filter:
 - analog, for oversampling, 4.10
 - analog versus digital, 6.2-4
 - frequency response comparison, 1.7
 - antialiasing, specifications, 2.4-5
 - band, 10.46
 - bandpass, design, 6.23-24
 - bandstop, design, 6.23-24
 - baseband antialiasing, 2.4-6
 - Butterworth, characteristics, 2.5
 - capacitor, types, 10.40
 - Chebyshev, 1.6
 - corner frequency, 2.4
 - design, and FFT, 5.1
 - digital, diagram, 1.6
 - digital FIR, 1.6
 - elliptic, characteristics, 2.5
 - FIR versus IIR, comparisons, 6.30
 - high frequency, 10.51
 - high-frequency, ferrites, 10.45
 - highpass, design, 6.23-24
 - impulse convolving, 6.23
 - lowpass, analog versus digital, in sampled data system, 1.5-6
 - power supply, 10.39-57
 - rolloff, sharpness, 6.9
 - switching supply, summary, 10.51
 - transfer function, 3.13
- Filtering, 1.3, 1.4
- FilterWizard, compiler, 9.41
- Finite amplitude resolution due to quantization, 2.2
- Finite impulse response *see* FIR

INDEX

- FIR filter, 6.5-30
 - 4-tap, output calculation, via circular buffer, 6.11
 - arbitrary frequency response, design, 6.17-18
 - CAD design programs, 6.18-19
 - characteristics, 6.14
 - circular buffering, 6.10-13
 - in circular buffering, 7.5
 - circular buffering, fixed boundary RAM, 6.10
 - coefficients, 6.15
 - compared with IIR filter, 6.30
 - computational efficiency increase, 6.32
 - design
 - Fourier series method, with windowing, 6.17
 - frequency sampling method, 6.17-18
 - fundamental concepts, 6.13
 - Parks-McClellan program, 6.18-22
 - programming ease in ADSP-21xx, 7.7-8
 - windowed-sinc method, 6.16
 - designing, 6.13-24
 - implementation, circular buffering, 6.10-13
 - impulse response, and coefficients, 6.14
 - Momentum Data Systems design
 - frequency response, 6.21
 - impulse response, 6.22
 - step response, 6.21
 - N-tap, general form, 6.9-10
 - output decimation, 6.32
 - program outputs, 6.20
 - pseudocode, 6.12, 7.7-8
 - simplified diagram, 6.10
 - transfer function
 - frequency domain, 6.15
 - time domain, 6.15
 - versus IIR filter, 6.30
- First-order sigma-delta ADC, 3.12
- Fisher, J., 3.33
- Fixed-point:
 - 16-bit, fractional format, 7.24
 - DSP arithmetic, 7.23-26
 - versus floating point, DSP arithmetic, 7.23-26
- Flash ADC:
 - 10-bit, diagram, 3.23
 - limited to 8-bits, 3.22
 - parallel ADCs, 3.21
 - diagram, 3.22
 - problems, 3.21
- Flash converter, 3.21-23
- Floating-point:
 - DSP arithmetic, 7.23-26
 - versus fixed point arithmetic, 7.26
- Folding converter, 3.29
- Fourier series, 5.1
 - FIR filter design, windowing, 6.17
- Fourier transform, 5.1, 6.15
 - and time domain signal, 5.2
- Fourier, Jean Baptiste Joseph, 5.1
- FPBW, full power bandwidth, 2.26
- Framing mode, 8.14
- Freeman, D.K., 9.43
- Frequency division multiple access, FDMA, 1.2
- Frequency domain, versus time domain, 6.13, 6.15
- Frequency sampling method, FIR filter design, 6.17-18
- Frequency synthesis, using PLLs and oscillators, diagram, 4.12
- Fu, Dennis, 9.43
- Full memory mode, 8.23
- Full power bandwidth, FPBW, 2.26
- Full-duplex hands-free car kit, diagram, 9.36
- Fully decoded DAC:
 - 5-bit, diagram, 4.4
 - diagram, 4.2
- G**
- Gain error, 2.10
- Galand, C., 9.43
- Ganesan, A., 3.33, 3.34
- Gardner, F.M., 4.17
- Gaussian noise, 2.20-21, 2.30
- Gaussian-filtered minimum-shift keying, 9.26
- Geerling, Greg, 7.1
- General DSP Training and Workshops, 7.55, 8.25
- General purpose aluminum electrolytic capacitor, 10.40-41
- Gerber files, 10.33
- Ghausi, M.S., 2.44
- Gibbs effect, 5.1
- Glitch:
 - code-dependent, effects, 2.38
 - DAC performance, 2.35-41
 - definition, 2.36
 - energy, 2.37
 - and harmonic distortion and SFDR, prediction, 2.39
 - impulse area, 2.37
- Global System for Mobile Communication *see* GSM
- Glue logic, 8.1
- Gold, B., 5.25, 6.40
- Gold, Bernard, 2.44
- Gosser, Roy, 2.42, 3.34
- Graham, M., 10.14
- Graham, Martin, 10.34, 10.65

- Grame, Jerald, 10.34
 Gray bit, 3.30
 Gray code binary coding, data converters, 2.10
 Gray, A.H., Jr., 6.40
 Gray, G.A., 2.42
 Ground loop, 10.20, 10.35
 Ground plane, 10.30
 decoupling high frequency current, 10.15
 impedance, 10.20
 low-impedance return path, 10.15-16
 printed circuit board, 10.17-18
 Ground screen, 10.19
 Grounded-input histogram, 2.20-21
 Grounding:
 DSP, internal phase-locked loops, diagram, 10.30
 mixed signal devices, in multcard system, 10.27-29
 mixed signal systems, 10.15-34
 mixed-signal ICs, 10.15
 multiple ground pins, 10.32
 philosophy, summary, 10.31
 points, diagram, 10.24
 separate analog and digital grounds, 10.19-20
 single-card versus multcard, concepts, 10.26-27
 Groupe Speciale Mobile *see* GSM
 GSM, block diagram, 9.18-19
 GSM handset:
 components, 9.21-26
 using SoftFone baseband processor, and Othello radio, 9.21-26
- H**
 Hageman, Steve, 10.56
 Half-flash ADC, 3.23
 Hamming window function, 5.22-23
 Hanning window function, 5.22-23
 Hard limiter, 2.29
 Hardware design, techniques, 10.1-65
 Harmonic distortion, 2.23-24
 DAC, 2.38
 definition, 2.23
 products, location, diagram, 2.23
 Harmonic sampling, 2.6-7
 Harmonic undersampling, 2.7
 Harrington, M.B., 9.44
 Harris, Fredrick J., 2.43, 5.25, 6.40
 Harris, Steven, 3.34
 Harvard architecture:
 in DSP, 7.5
 in microprocessor, 7.6-7
 Hauser, Max W., 3.34
 Haykin, S., 6.40
 HDTV, high definition television, 1.2
- Heise, B., 3.33
 Hellwig, K., 9.43
 Henning, H.H., 2.42, 3.34
 Higgins, Richard J., 1.9, 2.44, 5.25, 6.40, 7.55, 8.25
 High definition television, HDTV, 1.2
 High density DSP:
 localized decoupling
 diagram, 10.53
 using BGA packages, 10.54
 High Speed Design Techniques (1996), 3.35
 High speed logic, 10.58-65
 High-level language support, architectural features, 7.42
 High-speed interfacing, 8.22-23
 Highpass filter:
 design, 6.23-24
 using lowpass FIR, 6.23
 Hilton, Howard E., 2.44
 Hodges, David A., 2.43
 Hofmann, R., 9.43
 Honig, Michael L., 6.40
 Horvath, Johannes, 10.1
 Host memory mode, 8.23
 HP Journal, 2.43-44
 HP Product Note, 2.43
- I**
 IC, low-voltage mixed signal, 10.2
 IEEE Trial-Use Standard for Digitizing Waveform Recorders, 2.44
 IF sampling, 2.6-7
 IIR biquad filter:
 basic, 6.25
 simplified notations, 6.27
 IIR elliptic filter, 6.30
 IIR filter, 6.24-27
 analog counterparts, 6.24
 CAD design, using Fletcher-Powell algorithm, 6.28
 characteristics, 6.25
 compared with FIR filter, 6.30
 design techniques, 6.27-29, 6.29
 direct form implementation, 6.26
 feedback, 6.5
 IIR filter, 6.24-27
 implementation, 6.25
 throughput considerations, 6.29
 versus FIR filter, 6.30
 IMD:
 measurement, 2.28
 second- and third-order, diagram, 2.29
 two tone intermodulation distortion, 2.28-30
 Impulse invariant transformation, 6.28
 IMT-2000 protocol, 7.36
 In-circuit simulator, 7.48

INDEX

- Indirect field-oriented control, 9.32
- Induction motor:
 - control, 9.32-35
 - block diagram, 9.33
- Infinite impulse response *see* IIR
- Information, in signal, 1.2
- Input filtering, 1.5
- Input noise rejection, 1.5
- Input/output memory select, ADC, 8.2
- Instruction register, data address generator, 7.14
- Integral linearity error, measurement, 2.11-12
- Integral sample-and-hold, 2.19
- Interface:
 - 2.5V/3.3V, diagram, 10.13
 - 3.3V/2.5V, 10.10-13
 - diagram, 10.11-12
- Interfacing, high-speed, 8.22-23
- Interference, components, 10.39
- Intermodulation distortion, DAC, 2.38
- Internal aperture jitter, 10.25
- Internal result bus, 7.10-13
- Interpolation:
 - frequency domain effects, 6.33-34
 - implementation example, 6.33-34
 - multirate filter, 6.32-33
- Interrupt request, DAC, 8.9
- Intranet, 9.7
- I.Q. convention, 7.24
- IRQ, 8.1

- J**
- Jantzi, S.A., 3.33
- JEDEC, 10.14
 - specification, for packaging, 7.20
 - standards bureau, 10.5
- Jitter:
 - aperture, 10.25
 - effects, 2.33
 - external clock, 10.25
 - internal aperture, 10.25
 - sampling clock, 10.25
- Johnson noise, 2.8
- Johnson, H., 10.14
- Johnson, Howard W., 10.34, 10.65
- Joint Electron Device Engineering Council *see* JEDEC
- Jung, Walt, 10.39, 10.56

- K**
- Kelvin divider, 4.1
 - disadvantages, 4.1-2
 - ladder network, 4.3
- Kelvin-Varley divider, string DAC, 4.3
- Kerr, Richard J., 4.17

- Kester, Walt, 1.1, 2.1, 2.43, 3.1, 3.35, 4.1, 5.1, 6.1, 7.1, 8.1, 9.1, 10.1, 10.15, 10.34-35, 10.39
- Kettle, P., 9.44
- King, Dan, 7.1, 8.1
- Koch, R., 3.33

- L**
- Lagrange, Joseph Louis, 5.1
- Laker, K.R., 2.44
- Lane, Chuck, 2.42, 3.34
- Laplace transform, 6.15
 - conversion to z-transform, 6.28
- Laplace, Pierre Simon de, 5.1
- Latency, 3.25
- Lattice filter, 6.5
- Leaded ferrite bead, 10.44
- Least significant bit:
 - definition, 2.7
 - quantization, chart, 2.8
 - size, 2.8
- Least-mean-square algorithm, for filter coefficients, 6.36
- Lee, Hae-Seung, 2.43
- Lee, Wai Laing, 3.33
- Lee, W.L., 3.33
- Levine, Noam, 7.1
- Linear Design Seminar (1995), 2.42, 3.33, 3.34
- Linear integrity error, 2.11
- Linear predictive coding *see* LPC
- Linear settling time, DAC settling time, 2.35
- Linearity errors, 2.10
- Link descriptor file *see* LDF
- Link port, versus external port, in communications, 7.35
- Link port multiprocessing, 7.34
- LMS, least-mean-square, 6.36
- Logarithmic pulse code modulation, 9.19
- Logic:
 - CMOS IC output driver, configuration, 10.3-4
 - high speed, 10.58-65
- Logic translating transceiver:
 - diagram, 10.11
 - voltage compliance, 10.11
- Long term prediction *see* LTP
- Low voltage interface, 10.1-14
- Low Voltage Logic Alliance, standards, 10.5
- Low voltage logic level, standards, 10.4-5
- Low voltage mixed-signal IC, 10.2
- Low-pass filter, LPF, 3.11
- Lowpass filter, design of other filters, 6.23
- LPC, 6.36-37
 - in all-pole lattice filter, 6.38-39
 - model of speech production, 6.37

- speech companding system, 6.38
- speech processing system, 9.19
- speech system, digital filters, 6.38
- LPF:
 - analog, in sigma-delta ADC, 3.13
 - low-pass filter, 3.11
- LQFP, new package designation, 7.20
- Lucey, D.J., 9.44
- LVTTL, logic level, 10.4
- Lyne, Niall, 9.44

- M**
- McClellan, J.H., 6.40
- MagAmp, 3.29
 - 3-bit folding ADC
 - block diagram, 3.31
 - functional equivalent circuit, 3.30
 - input and residue waveforms, 3.31
- Magnitude amplifier, 3.29
- Magnitude-amplifier architecture, MagAmp, 3.24
- Mahoney, Matthew, 2.44
- Main lobe spreading, 5.22
- Manolakis, Dimitris G., 5.25, 6.40
- Markel, J.D., 6.40
- Marsh, Dick, 10.56
- Matched z-transform, 6.28
- MathCad 4.0 software package, 2.44
- Mathematical calculation, by computer, 7.1
- Matsuya, Y., 3.33, 3.34
- Maximally flat filter, 6.27
- Mayo, J.S., 2.42, 3.34
- Meehan, Pat, 2.43
- Memory address bus, ADC, 8.2
- Memory read, ADC, 8.2
- Memory select:
 - ADC, 8.2
 - DAC, 8.9
- Messerschmitt, David G., 6.40
- Microcontroller, 7.1-3
 - characteristics, 7.2
- MicroConverter, precision analog circuitry, 1.3
- Microprocessor, 7.1-3
 - architectures, comparison, 7.6
 - characteristics, 7.2
- Million operations per second *see* MOPS
- Millions of instructions per second *see* MIPS
- miniBGA package, 7.20-21
- Minimum 4-term Blackman-Harris window function, 5.22-23
- MIPS, 7.2, 7.18
- Missing codes:
 - in ADC, 2.12-13
 - defining, 2.14
- Mitola, Joe, 9.43
- Mixed Signal Design Seminar (1991), 3.33
- Mixed signal processing, 1.4
- Mixed-signal device:
 - grounding, 10.26-27
 - diagram, 10.27
- Mixed-signal IC:
 - grounding, multiple printed circuit boards, 10.28-29
 - high digital currents, grounding, 10.28-29
 - low digital current, grounding and decoupling, 10.21-22
 - low digital currents, grounding, 10.27-28
- Mobile telephone service, superheterodyne receiver, diagram, 9.27
- Mode status register, data address generator, 7.13
- Modem:
 - full-duplex, 9.1
 - half-duplex, 9.1
 - high performance, telephone service, 9.1-7
 - high speed, 1.2
 - RAS, 9.7-10
 - standards, chart, 9.3
 - V.90 analog
 - block diagram, 9.4
 - details, 9.6
 - V.90 analog versus V.34, diagram, 9.7
- Momentum Data Systems, QED1000 program, for FIR filter design, 6.18
- Momentum Data Systems, Inc., 6.40
- Montrose, Mark, 10.34, 10.65
- MOPS, 7.18
- Moreland, Carl, 2.42, 3.34
- Morley, Nick, 9.43
- Morris, Jesse, 7.1
- Morrison, Ralph, 10.34
- Motchenbacher, C.D., 10.34
- Motherboard, grounding, 10.18-19
- Motor control, 9.32-35
 - fully integrated, DashDSP, 9.35
- Motor Control Products, Application Notes, and Tools, 9.44
- Moving average filter, 6.5-10
 - calculating output, 6.7
 - diagram, 6.6
 - frequency response, 6.8
 - noise, 6.6-8
 - step function response, 6.6-7
- MSP, 1.4
- Multi-channel high frequency communication system, NPR, 2.31
- Multi-channel VOIP server, 9.10-11
- Multi-tone SFDR, measurement, 2.29
- Multicard mixed-signal system, grounding, 10.18-19
- Multilayer ceramic chip caps, 10.42
- Multiplier-accumulator unit, features, 7.12

INDEX

- Multiplying DACs, 4.3
- Multipoint ground, diagram, 10.19
- Multiprocessing, using SHARCs, 7.34-36
- Multirate filter, 6.31-35
 - decimation, 6.31
 - interpolation, 6.31
- Murden, Frank, 2.42, 3.34
- Murray, Aengus, 9.44

- N**
- Narrowband, 9.27
- Network:
 - LAN, 1.2
 - local area, 1.2
- Nicholas, Henry T. III, 4.17
- NMOS FET, bus switches, interfacing, 10.6-8
- Noise:
 - and grounding, 10.22
 - power supply, 10.39-57
- Noise power ratio *see* NPR
- Noise shaping, using analog filter, 3.13
- Non-ideal ADC, 3-bit, transfer function, diagram, 2.13
- Non-ideal DAC, 3-bit, transfer function, diagram, 2.13
- Normal framing mode, 8.14
- NPR, 2.30-32
 - measurement, diagram, 2.31
 - NPR, 2.30-32
 - theoretical, for various ADCs, 2.32
- Numerically controlled oscillator, 4.13
 - block diagram, 4.14
- Nyquist band, 3.10
- Nyquist bandwidth, 2.15, 2.17
 - aliasing, 2.4
 - definition, 2.4
- Nyquist criteria, 2.2
- Nyquist frequency, 2.41, 9.5
- Nyquist zone, 2.4, 2.26-27
 - baseband sampling, 2.6
 - spurious frequency component, 2.4

- O**
- Offset binary coding, data converters, 2.10
- Offset error, 2.10
- 1's complement binary coding, data converters, 2.10
- Oppenheim, A.V., 5.25, 6.40
- Optocoupler, 10.35
- Optoisolator, 10.35
- OS-CON Aluminum Electrolytic Capacitor 93/94 Technical Book, 10.56
- OS-CON electrolytic capacitor, 10.40-41, 10.43
- Othello:
 - radio, chipset, 9.21
 - radio receiver
 - advantages, 9.24
 - block diagram, 9.24-25
 - compactness, advantages, 9.26
 - superhodyne architecture, 9.23-24
- Ott, Henry, 10.34, 10.56
- Output enable/read, ADC, 8.2
- Output ripple, reduction, 10.50
- Oversampling, 3.10
 - and baseband antialiasing filter, 2.5
 - definition, 2.16-17
 - ratio, 3.11

- P**
- Parallel ADC, diagram, 3.22
- Parallel peripheral device:
 - read interface, key requirements, 8.3
 - write interface, key requirements, 8.9
- Parasitic capacitance, 10.43
- Parasitic inductance, 10.22
- Parks-McClellan program:
 - equiripple FIR filter design, program inputs, 6.19-20
 - FIR filter, 6.28
 - design, 6.18-22
- Parks, T.W., 6.40
- Parzefall, F., 3.33
- Passband ripple, 6.2
 - in filter, 1.6
- Pattavina, Jeffrey S., 10.34
- Peak glitch area, 2.37
- Peak spurious spectral content, ADC, 2.26
- Pentium-Series, 7.2
- Pericom Semiconductor Corporation, 10.14
- Permanent magnet synchronous machine, 9.33
- PGA, programmable gain amplifier, 1.5
- Phase accumulator, 4.14
- Phase jitter, 2.33
- Phase-locked loop, PLL, 4.12
- Phase-Locked Loop Design Fundamentals, 4.17
- PIC, 7.2
- Picocell, 9.30
- Pin socket, 10.16
- Pipeline delay, 3.25
- Pipelined ADC, 3.23-27
 - 12-bit CMOS ADC, block diagram, 3.26
 - error correction, 3.25-26
- Pipelined subranging ADC, 12-bit, digital error correction, block diagram, 3.25
- Plain Old Telephone Service *see* POTS
- PMOS transistor current switch, diagram, 4.7
- Point of presence *see* POP
- Polyester, capacitor, 10.40-41

- POP, 9.8
- POTS:
- block diagram, 9.2
 - hybrid circuit, 9.1
- Power inverter, 9.32
- Power plane, 10.15-17
- Power supply:
- filtering, 10.39-57
 - localized high frequency filter, 10.51-53
 - construction guidelines, 10.52-53
 - noise reduction, 10.39-57
 - pins, decoupling, 10.16
 - separate for analog and digital circuits, 10.23
- PowerPC, 7.2
- Practical Analog Design Techniques (1995), 2.42, 3.34
- Practical Design Techniques for Power and Thermal Management, 10.57
- Practical Design Techniques for Sensor Signal Conditioning, 1.9
- Printed circuit board:
- double-sided versus multilayer, 10.17-18
 - ground plane, 10.17
 - impedance, calculation, 10.59
 - mixed-signal system, layout guidelines, 10.31-33
 - "motherboard", grounding, 10.18-19
 - trace termination, 10.58
- Proakis, John G., 5.25, 6.40
- Processing gain:
- definition, 2.16-17
 - FFT, 2.18-19
- Processor interrupt request line, ADC, 8.1-2
- Program memory address bus, 7.10
- Program memory data bus, 7.10
- Program memory select, ADC, 8.2
- Program sequencer:
- data address generator, 7.14
 - features, 7.14
- Programmable gain amplifier, PGA, 1.5
- Prom splitter, 7.45
- Pseudocode, FIR filter, using DSP with circular buffering, 7.8
- Pulse code modulation, 9.3
- Q**
- QEDesign, 9.41
- filter package, 3.20
- QS3384 Data Sheet, 10.14
- QS3384 QuickSwitch, 10.7-8
- transient response, diagram, 10.8
- Quadrature amplitude modulation, 9.26
- diagram, 9.5
 - POTS, 9.3
- Quantization:
- effects on ideal ADC, 2.15
 - size of LSB, chart, 2.8
- Quantization error, 2.9-10
- signal, 2.15
- Quantization noise:
- in digital system with ADC, 2.31
 - for ideal N-bit ADC, diagram, 2.16
 - shaping, 3.10
 - in sigma-delta ADC, 3.14
 - spectrum, diagram, 2.16
- Quantization uncertainty, 2.9-10
- QuickSwitch, in bidirectional interface, 10.6-8
- R**
- Rabiner, Lawrence, 2.44
- Rabiner, L.R., 5.25, 6.40, 6.41
- RAMDAC, 1.3
- Ramirez, Robert W., 2.43
- Ramirez, R.W., 5.25
- RAS:
- equipment, 9.10
 - modem, 9.7-10
 - as Internet gateway, diagram, 9.8
 - on-switch based, 9.9
- RAS/VOIP servers, 9.10
- Receive data register, 8.14
- Receive frame sync, 8.14
- Receive shift register, 8.14
- Reconstruction, definition, 2.14
- Reconstruction filter, 6.2
- Recovery time, DAC settling time, 2.35
- Recursive filter, 6.24
- Recursive-least-squares algorithm, for filter coefficients, 6.36
- Reference frame theory, 9.33
- Regular pulse excitation *see* RPE
- Reidy, John, 2.43
- Remez exchange algorithm, 6.18-19
- Remote access server *see* RAS
- Remote network access, 9.7
- Rempfer, William C., 10.34
- Ripple, passband, in filter, 1.6
- Ripple ADC, 3.27-32
- diagram, 3.27
- RISC, and DSP, 7.3
- RLS, recursive-least-squares, 6.36
- Roche, P.J., 9.44
- Rolloff:
- sharpness, 6.9
 - sidelobe, 5.22
- Root-sum-square, RSS, 2.24
- Rorabaugh, C. Britton, 5.25, 6.40, 7.55, 8.25
- Rosso, M., 9.43
- Ruscak, Steve, 2.42

INDEX

S

- Sample rate converter, using interpolator and decimator, 6.35
- Sample-and-hold *see* SHA
- Sampled data system, definition, 2.14
- Sampling:
 - above first Nyquist zone, 2.7
 - bandpass, 2.6-7
 - harmonic, 2.6-7
 - IF, 2.6-7
 - rate versus bandwidth, 2.7
- Sampling clock, 10.24-26
 - ground planes, diagram, 10.26
 - jitter, effect on SNR, 10.25
- Sampling rate, increased, 1.5
- Samueli, Henry, 4.17
- SAR, 3.2
- SAR ADC, 3.3
 - external high frequency clock, 3.6
 - fundamental timing, 3.5
 - resolutions, table, 3.5
 - switched capacitor, 3.8
 - with switched capacitor DAC, 3.3
 - typical timing, 3.6
- Sauerwald, Mark, 10.34
- Scannell, J.R., 9.44
- Schafer, R.W., 5.25, 6.40, 6.41
- Schmid, Hermann, 2.42, 3.34
- Schmitt trigger, 10.38
- Schottky diode, 10.7, 10.20, 10.29, 10.30
- Segmentation, in thermometer DAC, 4.5
- Segmented DAC, 4.2-3
 - 10-bit, diagram, 4.5
- Segmented voltage DAC, segmented voltage, 4.3
- Sensor:
 - as analog device, 1.4
 - in industrial data acquisition and control systems, 1.3
 - uses, 1.1-2
- Serial ADC, 3.27-32
 - diagram, 3.27
 - to DSP interface, 8.14-17
- Serial clock, 8.14
- Serial DAC, to DSP interface, 8.17-19
- Serial ports, in ADSP-21xx, 7.16
- Serial-Gray, ADC architecture, 3.29
- Settling time:
 - DAC performance, 2.35-41
 - diagram, 2.36
 - periods, 2.35
- SFDR, 2.17, 2.21, 2.26-28, 2.35-41
 - ADC, definition, 2.26
 - DAC
 - distortion, 2.38
 - performance, 2.35-41
 - test setup, 2.40
 - diagram, 2.27
 - sampling clock to input frequency ratio, for ideal 12-bit ADC, 2.18
- SHA, 2.19-20
 - and aperture jitter, 2.33
- SHARC:
 - 32-bit, key features, 7.32
 - architecture, 7.27
 - coding, 7.33
 - decoupling, 10.53
 - DSP
 - evaluation device, 7.48-49
 - floating and fixed point arithmetic, 7.25
 - DSP benchmarks, 7.34
 - family roadmap, 7.33
 - FFT butterfly processing, 7.26
 - floating point DSP, 7.26-30
 - floating-point DSP, 7.26-30
 - key features, 7.27
 - multi-function instruction, 7.33
 - multiprocessing, 7.34-36
 - multiprocessor communication, examples, 7.35
 - program sequencer, 7.26
 - VisualDSP++ software, 7.52
- SHARC DSP:
 - 32-bit floating point, 9.38-39
 - bi-directional transmission, source termination, diagram, 10.63
- Sheingold, Dan, 2.44
- Sheingold, Daniel H., 1.9, 3.34
- Shifter unit, features, 7.12
- Shunt resistance, 10.43
- Sidelobe, 5.22
- Sigma-delta ADC:
 - bandpass filters, 3.18-19
 - characteristics, table, 3.10
 - first-order, diagram, 3.12
 - fixed internal digital filter, 3.19
 - and missing codes, 2.14
 - multi-bit
 - diagram, 3.18
 - flash ADC with DAC, 3.17-18
 - noise shaping, 3.12-13
 - order versus oversampling, 3.14-15
 - oversampling, 3.20
 - converter, 2.6
 - programmable digital filter, 9.40-42
 - quantization noise shaping, 3.14
 - second-order, block diagram, 3.15
 - settling time, and digital filter, 3.16
 - SNR, 3.20
 - summary, 3.21
- Sigma-delta audio DAC, 3.17
- Sigma-delta DAC, 4.11-12
 - architecture, diagrams, 4.11

- high resolution, oversampling, 4.11
- Sign-magnitude bipolar converter, 2.10
- Signal:
 - amplitude, 1.2
 - analog, 1.1
 - bandwidth
 - aliasing, 2.2
 - Nyquist criteria, 2.2
 - characteristics, table, 1.1
 - conditioning, 1.1
 - analog signal processor, 1.4
 - sensors, 1.1-2
 - successive approximation ADCs, 3.2
 - continuous aperiodic, 5.1
 - continuous periodic, 5.1
 - sinusoidal waves, 5.1
 - definition, 1.1, 1.2
 - digital, 1.1-2
 - frequency, 1.2
 - processing
 - frequency compression, 1.2
 - information extraction, 1.2
 - methods, 1.4-5
 - mixed, 1.4
 - real-time, comparison chart, 1.8
 - reasons, 1.3
 - real-world
 - generation, 1.3
 - origins, 1.1-2
 - processing, 1.2-3
 - units of measurement, 1.1-2
 - recovery, 1.3
 - sampled aperiodic, 5.1
 - sampled periodic, 5.1
 - spectral content, 1.2
 - timing, 1.2
 - units of measurement, table, 1.1
- Signal-to-noise ratio *see* SNR
- Signal-to-noise-and-distortion ratio, SINAD, 2.21, 2.24-25
- Signed fractional format, DSP arithmetic, 7.23
- Signed integer format, DSP arithmetic, 7.23
- Silence descriptor, 9.20
- SINAD, 2.21, 2.24-25
 - conversion to ENOB, equation, 2.25
- Singer, Larry, 2.42
- Single precision, floating point arithmetic, standard, 7.25
- single-instruction, multiple data *see* SIMD
- Single-instruction, single-data *see* SISD
- Sinusoidal wave, continuous periodic signal, 5.1
- SISD, older DSP architecture, 7.31
- Sluyter, R.J., 9.43
- Small signal bandwidth, 2.25
- Smith, Steven W., 5.25, 6.40, 7.55, 8.25
- Snelgrove, M., 3.33
- SNR, 2.15, 2.21, 2.24-25
 - decrease with input frequency in ADC, 2.33
 - definition, 2.15
 - degradation, from external clock jitter, 10.25
 - due to aperture and sampling clock jitter, diagram, 2.34
 - SNR-without-harmonics, calculation, 2.25
- Sodini, C.G., 3.33
- SoftCell:
 - chipset
 - block diagram, 9.30
 - for digital phone receivers, 9.29
- SoftFone, baseband processor, chipset, 9.21
- Software development environment, 7.51
- Software simulator, for debugging, 7.45
- Southcott, C.B., 9.43
- Spectral inversion, in filter design, 6.23
- Spectral leakage:
 - FFT, 5.21
 - windowing, 5.23
- Spectral reversal, in filter design, 6.23
- Speech:
 - compression, adaptive filter use, 6.36
 - encoder/decoder, 9.18-19
 - processing, standards, 9.18-19
 - synthesis, adaptive filter use, 6.36
 - synthesized, 1.3
- SPORT:
 - in ADSP-21xx, 7.16
 - transfer rate, 8.20
- Spurious free dynamic range *see* SFDR
- SSBW, small signal bandwidth, 2.25
- Stacked-film capacitor, 10.40, 10.42
- Star ground, 10.16, 10.19, 10.26
- Static branch prediction logic, 7.39
- Static superscalar, 7.39
- Stearns, S.D., 6.40
- Stopband ripple, 6.2
- String DAC:
 - diagram, 4.2
 - disadvantages, 4.1-2
 - Kelvin divider, 4.1
- Subranging ADC, 3.23-27
 - 8-bit, diagram, 3.24
 - 12-bit, digitally corrected, block diagram, 3.25
 - digital correction, 3.24
- Successive approximation ADC, 3.1-9
 - basic, 3.3
- Successive approximation register *see* SAR
- SUMMIT-ICE, PCI emulator, 7.50
- Super Harvard Architecture, for 32-bit DSP, 7.27-28
- Superheterodyne architecture, 9.23-24

INDEX

- Superhodyne architecture:
 - diagram, 9.24-25
 - operation, 9.25-26
- Supply voltage reduction, 10.1
- Surface mount ferrite bead, 10.44
- Swanson, E.J., 3.33
- Switching capacitor, characteristics, 10.40-41
- Switching regulator, 10.46-51
 - filtering, experiment, 10.46-50
 - noise, reduction tools, 10.40
- Switching supply, filter, summary, 10.51
- Switching time, DAC settling time, 2.35
- System Applications Guide (1993), 2.43, 3.33, 3.35
- Systolix FilterExpress, 9.41
- Systolix PulseDSP, 9.41
 - filter core, 6.2
 - processor, 3.19-20

- T**
- T-Carrier system, 1.2
- Tantalum electrolytic capacitor, 10.40-41
- Tantalum Electrolytic Capacitor SPICE Models, 10.57
- Tantalum Electrolytic and Ceramic Capacitor Families, 10.56
- Tant, M.J., 2.42
- TDMA, 1.2
- Telephone, FDMA, 1.2
- Tesla, Nikola, 9.32
- THD+N, 2.23-24
 - definition, 2.24
- THD, 2.21, 2.23-24
 - definition, 2.24
- Thermal noise, equivalent input referred noise, 2.20-21
- Thermometer code, 3.21
- Thermometer DAC:
 - 5-bit, diagram, 4.4
 - diagram, 4.2
 - disadvantage, 4.5
 - segmentation, 4.5
- Thevenin impedance, 10.61
- Thompson filter, 6.27-28
- TigerSHARC:
 - ADSP-TS001 static superscalar DSP, 7.36-44
 - architecture, 7.38
 - branch target buffer, 7.39, 7.41
 - features, 7.39
 - flexibility, 7.36
 - key features, 7.37
 - multiprocessor key elements, 7.36-37
 - static branch prediction logic, 7.39
 - static superscalar, 7.39
 - development tools, 7.53
 - DSP, 9.30-31
 - key features, 7.40
 - multiprocessing implementation, sample configuration, 7.42-43
 - peak computation rates, 7.41
 - roadmap, 7.43
 - Time division multiple access *see* TDMA
 - Time domain, versus frequency domain, 6.13, 6.15
 - Time sampling, analog signal, 2.2-7
 - Total harmonic distortion *see* THD
 - Total harmonic distortion plus noise *see* THD+N
 - TQFP package designation, new designations, 7.20
 - Transmission line:
 - controlled impedance microstrip, termination, 10.61
 - termination at both ends, 10.64
 - Transmit data register, 8.14
 - Transmit shift register, 8.14
 - TREK-ICE, Ethernet emulator, 7.50
 - TTL, logic level, 10.4
 - Tukey, J.W., 2.43, 5.10, 5.25
 - Twiddle factors, 5.9-10
 - Two tone intermodulation distortion, IMD, 2.28-30
 - 2's complement binary coding, data converters, 2.10
 - Type 1 Chebyshev filter, 6.27-28
 - Type 2 Chebyshev filter, 6.27
 - Type 5MC Metallized Polycarbonate Capacitor, 10.56
 - Type 5250 and 6000-101K chokes, 10.56
 - Type EXCEL leaded ferrite bead EMI filter, and type EXC L leadless ferrite bead, 10.56
 - Type HFQ Aluminum Electrolytic Capacitor and type V Stacked Polyester Film Capacitor, 10.56

 - U**
 - Undersampling, 2.6-7
 - diagram, 2.6
 - harmonic sampling, 2.7
 - Nyquist zone, 2.6
 - Unipolar converter, 2.9-10
 - Unsigned fractional format, DSP arithmetic, 7.23
 - Unsigned integer format, DSP arithmetic, 7.23
 - Using the ADSP-2100 Family, 7.55, 8.25

 - V**
 - Vary, P., 9.43
 - VCX device, 10.9
 - 74VCX164245 Data Sheet, 10.14

- Vector control, 9.32-33
 - Very Large Scale Integration, VLSI, 1.4
 - Very long instruction word, in SHARC architecture, 7.37
 - Video raster scan display system, 1.3
 - Virtual-IF transmitter, in AD6523, 9.23
 - VisualDSP++, DSP development software, 7.51
 - VisualDSP:
 - DSP development software, 7.51
 - test drive, 7.53
 - Viterbi algorithm, 9.6
 - Viterbi decoder, 9.5
 - Voice activity detector, 9.20
 - Voice over the Internet protocol, 7.42
 - Voice-over-Internet-provider *see* VOIP
 - Voltage:
 - identification pin, 10.1
 - low, interfaces, 10.1-14
 - supply, reduction, 10.1
 - Voltage compliance, 10.5-6
 - definition, 10.6
 - internally created, 10.8-10
 - considerations, 10.9-10
 - Voltage tolerance, 10.5-6
 - definition, 10.5-6
 - internally created, 10.8-10
 - Voltage-controlled-oscillator, 4.12
 - Von Neumann architecture, 7.6
- W**
- Waldhauer, F.D., 2.42, 3.29, 3.34
 - Waurin, Ken, 7.1
 - Weaver, Lindsay A., 4.17
 - Weeks, Pat, 2.43
 - Welland, D.R., 3.33
 - Wepman, Jeffery, 9.43
 - Wideband, 9.27
 - Widrow, B., 6.40
 - Window function, 5.22-23, 5.23, 6.16
 - characteristics, 5.24
 - frequency responses, 5.24
 - Windowed-sinc method:
 - FIR filter design, 6.16
 - responses, diagrams, 6.16
 - Witte, Robert A., 2.43
 - Wooley, Bruce, 3.33
 - Worst harmonic, 2.23-24
 - Write, DAC, 8.9
- X**
- xDSL protocol, 7.36

Analog Devices Parts Index

- AD260/AD261, 10.36-38
- AD820, 3.8-9
- AD974, 3.5
- AD2S80A, 9.33-34
- AD2S82A, 9.33-34
- AD2S83A, 9.33-34
- AD2S90A, 9.33-34
- AD185x, 4.11
- AD189x, 6.35
- AD1819B, 1.5, 9.37-38
- AD1836, 9.38-39
- AD1852, 3.17
- AD1853, 3.17, 4.12
- AD1854, 3.17
- AD1877, 3.16-17
- AD1890, 6.35
- AD1891, 6.35
- AD1892, 6.35
- AD1893, 6.35
- AD1896, 6.35
- AD5322, 8.17-19
- AD5340, 8.10-12
- AD6521, 9.21-22
- AD6522, 9.21-22
- AD6523, 9.22-23, 9.25
- AD6524, 9.22-23, 9.25
- AD6600, 9.30
- AD6622, 9.30-31
- AD6624, 9.30-31
- AD6640, 2.29-30, 3.24-25
- AD6644, 9.30-31
- AD7472, 3.5
- AD77xx, 3.17
- AD773x, 1.5
- AD977x, 4.6
- AD983x, 4.16
- AD984x, 1.5
- AD985x, 4.6
- AD7660, 3.5
- AD7664, 3.5
- AD7722, 10.15
- AD7725, 3.19, 6.2, 9.40-42
- AD7730, 10.15
- AD7731, 10.15
- AD7853/7853L, 8.15-18
- AD7853L, 8.15-17
- AD7854/AD7854L, 8.4-7
- AD7856/67, 3.5
- AD7858/59, 3.5, 3.8-9
- AD7861, 9.33
- AD7862, 9.33
- AD7863, 9.33

INDEX

AD7864, 9.33
AD7865, 9.33
AD7887/88, 3.5
AD7891, 3.5
AD7892, 10.15
AD9042, 2.27, 2.31-32
AD9201, 8.22-23
AD9220, 2.24-25, 3.26
AD9221, 3.26
AD9223, 3.26
AD9288-100, 3.32
AD9410, 3.23
AD9761, 8.22-23
AD9772, 2.39, 4.6, 4.9-10, 9.30-31
AD9814, 1.5
AD9815, 1.5
AD9850, 4.15-16
AD73311, 8.1
AD73322, 1.5, 8.1, 8.19-22, 9.36
AD73422, 8.21-22
AD74222-80, 8.21-22
AD20msp430, 9.21-23
AD20msp910, 9.12, 9.15
AD20msp918, 9.15
ADMC200/ADMC201, 9.33
ADMC300, 9.34
ADMC326, 9.34
ADMC328, 9.34
ADMC331, 9.34
ADMC401, 9.34
ADMCF5xx, 9.35
ADMCF326, 9.34
ADMCF328, 9.34
ADP1148, 10.46
ADP3310, 10.47, 10.49-50
ADP33xx, 9.22
ADP34xx, 9.22
ADSP-21ESP202, 9.36-37
ADSP-21mod870, 9.8-10
ADSP-21mod970, 9.10
ADSP-21mod980, 9.10
ADSP-21modxxx, 9.9
ADSP-21msp5x, 7.21
ADSP-21xx, 1.6-8, 6.11-13, 6.28, 7.2, 7.4,
7.6-24, 8.1-3, 8.7-8, 8.12-
14, 9.5, 9.8, 9.33, 10.9
ADSP-210x, 7.21
ADSP-216x, 7.21
ADSP-217x, 7.18, 9.34-35
ADSP-218x, 7.7, 7.11, 7.15, 7.18, 7.22, 7.49,
7.51-53, 8.20-22, 9.5,
9.8, 9.10-11, 9.22, 9.36-38
ADSP-218xL/M, 10.1
ADSP-219x, 7.7, 7.11, 7.19-21, 7.23, 7.51-53,
9.35
ADSP-2100, 7.9, 7.15
ADSP-2105, 7.16
ADSP-2106x, 7.26-30
ADSP-2111, 7.21
ADSP-2116x, 7.31-36
ADSP-2181/3, 7.21
ADSP-2183, 9.15
ADSP-2184/L, 7.21
ADSP-2185/L/M, 7.21
ADSP-2185L/86L, 8.21-22
ADSP-2186/L, 7.21
ADSP-2187L/M, 7.21
ADSP-2188M, 7.20, 7.21, 9.10-11
ADSP-2189M, 5.18, 6.1, 6.12, 6.20, 6.22,
6.28, 7.21, 7.47, 8.2-7, 8.9-
12, 8.14-15, 8.23-24
ADSP-21000, 7.26-27
ADSP-21060, 7.29-30, 7.33
ADSP-21060L, 10.58
ADSP-21061, 7.29-30, 7.33
ADSP-21062, 7.29-30, 7.33
ADSP-21065, 7.29-30, 7.33
ADSP-21065L, 7.27, 7.34, 7.48, 8.22-23,
9.38-39
ADSP-21160, 5.18, 7.27, 7.31-32, 7.34, 7.36,
9.39-40, 10.29-31, 10.54-55
ADSP-21160M, 7.33, 7.47
ADSP-21161N, 7.33
ADSP-TS001 TigerSHARC, 5.18-19,
7.36-44, 9.30-31
ADuM1100A, 10.36-37
ADuM1100B, 10.36-37
EZ-ICE, 7.48
EZ-KIT Lite, 7.45-48
EZ-LAB, 7.45