

well, can you please exclude the indexed access and list again the differences with all the instructions ?



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Sure, here are some differences related to instruction sets for the processors you mentioned:

1. AVRxt:

Has a RISC instruction set with fixed-length 16-bit instructions.

Supports single-cycle arithmetic and logic operations.

Supports instructions for bit manipulation, shift and rotate, and branch and skip operations.

Supports load and store instructions with efficient register and immediate addressing modes.

Supports a limited set of multiply and divide instructions.

2. PIC16:

Has an 8-bit instruction set with 35 instructions.

Supports bit manipulation, shift and rotate, and branch and skip operations.

Supports indirect addressing with file registers.

Supports single-cycle arithmetic and logic operations with some instructions taking two cycles.

Supports instructions for table read and write operations.

3. PIC18:

Has a RISC instruction set with 75 instructions.

Supports single-cycle arithmetic and logic operations.

Supports bit manipulation, shift and rotate, and branch and skip operations.

Supports load and store instructions with efficient register and immediate addressing modes.

Supports instructions for table read and write operations.

Supports instructions for hardware multiply and divide operations.

4. PIC24:

Has a RISC instruction set with 73 instructions.

Supports single-cycle arithmetic and logic operations.

Supports bit manipulation, shift and rotate, and branch and skip operations.

Supports load and store instructions with efficient register and immediate addressing modes.

Supports instructions for table read and write operations.

Supports instructions for hardware multiply and divide operations.

Supports 16-bit data and address operations.

5. 8080:

Has an 8-bit instruction set with 246 instructions.

Supports bit manipulation, shift and rotate, and branch and skip operations.

Supports load and store instructions with register and immediate addressing modes.

Supports instructions for I/O operations.

Supports instructions for string manipulation.

6. Z80:

Has an 8-bit instruction set with 158 instructions.

Supports bit manipulation, shift and rotate, and branch and skip operations.

Supports load and store instructions with register and immediate addressing modes.

Supports instructions for I/O operations.

Supports instructions for block transfer and string manipulation.

Supports instructions for hardware multiply and divide operations.

7. 6502:

Has an 8-bit instruction set with 151 instructions.

Supports bit manipulation, shift and rotate, and branch and skip operations.

Supports load and store instructions with register and immediate addressing modes.

Supports instructions for indirect addressing with index registers.

Supports instructions for block transfer and string manipulation.

Supports instructions for hardware multiply and divide operations.

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