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2. 转换为八进制和十六进制

原二进制数 $(1111010.0011101)_2$ 八: $(172.172)_8$ 十六: $(7A.3D)_{16}$

3. 转换为十进制即按位权相加

$$(101010.01)_2 = (2^5 + 2^3 + 2^1 + 2^0)_{10} = (42.25)_{10}$$

4. 将八进制 $(37.2)_8$ 转换为十进制与BCD码

$$(37.2)_8 = (3 \times 8^1 + 7 + 2 \times 8^{-1}) = (31.25)_{10}$$

$$(37.2)_8 = (31.25)_{10} = (00110001.00100101)_{BCD}$$

5. 将 $(ACE)_{16}$ 转换为十进制与BCD码

$$(ACE)_{16} = (172.875)_{10} = (00010110010.100011101)_{BCD}$$

6. 将十进制 $(75.34)_{10}$ 转换为8位二进制数、八进制和十六进制数

$$(75.34)_{10} = (1001011.1)_2 = (113.4)_8 = (4B.8)_{16}$$

7. 将十进制 $13/128$ 转换为二进制数

$$(13/128)_{10} = (0.000101)_2$$

8. 原码 补码

0 00000000 00000000

-0 10000000 10000000

0.1010 0.1010000 0.1010000

-0.1010 1.1010000 1.0110000

1010 0001010 0001010

-1010 10001010 11110110

$$9. X_{补} = 0.1010 \quad X_{原} = 0.0110$$

$$\text{真值 } X = 0.0110$$

$$10. X_{补} = 1.1010 \quad X_{原} = 1.0110$$

$$\text{真值 } X = -0.0110$$