1.2.1 1.60001 as an IEEE

$1.00001 = 1 + 0.00001$

$1.00001_{10} = 1.00000000000000010100011_2$

(1) $0.00001 \times 2 = 0.00002$

(2) $0.00002 \times 2 = 0.00004$

(3) $0.00004 \times 2 = 0.00008$

(4) $0.00008 \times 2 = 0.00016$

(5) $0.00016 \times 2 = 0.00032$

(6) $0.00032 \times 2 = 0.00064$

(7) $0.00064 \times 2 = 0.00128$

(8) $0.00128 \times 2 = 0.00256$

(9) $0.00256 \times 2 = 0.00512$

(10) $0.00512 \times 2 = 0.01024$

(11) $0.01024 \times 2 = 0.02048$

(12) $0.02048 \times 2 = 0.04096$

(13) $0.04096 \times 2 = 0.08192$

(14) $0.08192 \times 2 = 0.16384$

(15) $0.16384 \times 2 = 0.32768$

(16) $0.32768 \times 2 = 0.65536$

(17) $0.65536 \times 2 = 1.31072$

(18) $0.31072 \times 2 = 0.62144$

(19) $0.62144 \times 2 = 1.24288$

(20) $0.24288 \times 2 = 0.48576$

(21) $0.48576 \times 2 = 0.97152$

(22) $0.97152 \times 2 = 1.94304$

(23) $0.94304 \times 2 = 1.88608$

Sign = 0 (+)

Exp = 0 + 127 = 01111111

M = 0000 0000 0000 0000 1010 011

Sign (0)	Exponent (8 bits)	Mantissa (23 bits)
IEEE: 0	01111111	00000000 0000 00001010011

Answer ↗