

BINARY BIT VALUE REFERENCE

8-Bit Byte Structure (IPv4 / Standard Computing)

Bit Position	Power of 2	Decimal Value
1st Bit (MSB)	2^7	128
2nd Bit	2^6	64
3rd Bit	2^5	32
4th Bit	2^4	16
5th Bit	2^3	8
6th Bit	2^2	4
7th Bit	2^1	2
8th Bit (LSB)	2^0	1

Total Possible Sum (All Bits On) 255

Formula: (Value \tilde{A} — $2^{position}$) | Byte = 8 Bits | Total Combinations: 256 (0-255)