

unsigned char

1 byte $\rightarrow 2^8 \rightarrow$ (sign will not be store) $\rightarrow 0$ to $2^8 - 1$
 0 to $128 + 127$
 255

1 byte

signed $\rightarrow -2^7$ to $2^7 - 1$
 -128 to 127
 unsigned $\rightarrow 0$ to $2^8 - 1$
 $128 + 127 = 255$

2 bytes

2^{31} 32768	2^{30} 16384	2^{29} 8192	2^{28} 4096	2^{27} 2048	2^{26} 1024	2^{25} 512	2^{24} 256	2^{23} 128	2^{22} 64	2^{21} 32	2^{20} 16	2^{19} 8	2^{18} 4	2^{17} 2	2^{16} 1
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signed $\rightarrow -2^{15}$ to $2^{15} - 1$
 -32768 to 32767
 unsigned $\rightarrow 0$ to $2^{16} - 1$
 $32768 + 32767 = 65535$