

TIA Data type limits

Decimal	Hex	TIA data type	Byte	Description
18,446,744,073,709,551,615	FFFF FFFF FFFF FFFF	LWORD, ULINT	8	The maximum unsigned 64 bit value ($2^{64} - 1$)
9,223,372,036,854,775,807	7FFF FFFF FFFF FFFF	LINT	8	The maximum signed 64 bit value ($2^{63} - 1$)
9,007,199,254,740,992	0020 0000 0000 0000	-	8	The largest consecutive integer in IEEE 754 double precision (2^{53})
4,294,967,295	FFFF FFFF	DWORD, UDINT	4	The maximum unsigned 32 bit value ($2^{32} - 1$)
2,147,483,647	7FFF FFFF	DINT	4	The maximum signed 32 bit value ($2^{31} - 1$)
16,777,216	0100 0000	-	4	The largest consecutive integer in IEEE 754 single precision (2^{24})
65,535	FFFF	WORD, UINT	2	The maximum unsigned 16 bit value ($2^{16} - 1$)
32,767	7FFF	INT	2	The maximum signed 16 bit value ($2^{15} - 1$)
255	FF	BYTE	1	The maximum unsigned 8 bit value ($2^8 - 1$)
127	7F	SINT	1	The maximum signed 8 bit value ($2^7 - 1$)
-128	80	SINT	2	Minimum signed 8 bit value
-32,768	8000	INT	2	Minimum signed 16 bit value
-2,147,483,648	8000 0000	DINT	4	Minimum signed 32 bit value
-9,223,372,036,854,775,808	8000 0000 0000 0000	LINT	8	Minimum signed 64 bit value

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