

# BINARY **Byte** Conversion Chart (Base 2, IEC & JEDEC)

**1 kilobyte == 1024 bytes**

**1 kibibyte == 1024 bytes**

Chart #1 BINARY BYTE	Is Equal To ==	byte (B)	kilobyte (KB)	megabyte (MB)	gigabyte (GB)	terabyte (TB)	petabyte (PB)	exabyte (EB)	zettabyte (ZB)	yottabyte (YB)
			kibibyte (KiB)	mebibyte (MiB)	gibibyte (GiB)	tebibyte (TiB)	pebibyte (PiB)	exbibyte (EiB)	zebibyte (ZiB)	yobibyte (YiB)
1 byte	==	1 byte	-	-	-	-	-	-	-	-
1 kilobyte	==	1024 bytes	1 KB/KiB	-	-	-	-	-	-	-
1 kibibyte										
1 megabyte	==	1048576 bytes	1024 KB/KiB	1 MB/MiB	-	-	-	-	-	-
1 mebibyte		1024 <sup>2</sup>								
1 gigabyte	==	1073741824 bytes	1048576 KB/KiB	1024 MB/MiB	1 GB/GiB	-	-	-	-	-
1 gibibyte		1024 <sup>3</sup>	1024 <sup>2</sup>							
1 terabyte	==	1099511627776 bytes	1073741824 KB/KiB	1048576 MB/MiB	1024 GB/GiB	1 TB/TiB	-	-	-	-
1 tebibyte		1024 <sup>4</sup>	1024 <sup>3</sup>	1024 <sup>2</sup>						
1 petabyte	==	1125899906842624 bytes	1099511627776 KB/KiB	1073741824 MB/MiB	1048576 GB/GiB	1024 TB/TiB	1 PB/PiB	-	-	-
1 pebibyte		1024 <sup>5</sup>	1024 <sup>4</sup>	1024 <sup>3</sup>	1024 <sup>2</sup>					
1 exabyte	==	1.152921504606847e+18 bytes	1125899906842624 KB/KiB	1099511627776 MB/MiB	1073741824 GB/GiB	1048576 TB/TiB	1024 PB/PiB	1 EB/EiB	-	-
1 exbibyte		1024 <sup>6</sup>	1024 <sup>5</sup>	1024 <sup>4</sup>	1024 <sup>3</sup>	1024 <sup>2</sup>				
1 zettabyte	==	1.180591620717411e+21 bytes	1.152921504606847e+18 KB/KiB	1125899906842624 MB/MiB	1099511627776 GB/GiB	1073741824 TB/TiB	1048576 PB/PiB	1024 EB/EiB	1 ZB/ZiB	-
1 zebibyte		1024 <sup>7</sup>	1024 <sup>6</sup>	1024 <sup>5</sup>	1024 <sup>4</sup>	1024 <sup>3</sup>	1024 <sup>2</sup>			
1 Yottabyte	==	1.208925819614629e+24 bytes	1.180591620717411e+21 KB/KiB	1.152921504606847e+18 MB/MiB	1125899906842624 GB/GiB	1099511627776 TB/TiB	1073741824 PB/PiB	1048576 EB/EiB	1024 ZB/ZiB	1 YB/YiB
1 yobibyte		1024 <sup>8</sup>	1024 <sup>7</sup>	1024 <sup>6</sup>	1024 <sup>5</sup>	1024 <sup>4</sup>	1024 <sup>3</sup>	1024 <sup>2</sup>		

blue = JEDEC

yellow = IEC

# DECIMAL **Byte** Conversion Chart (Base 10, Metric)

## 1 kilobyte == 1000 bytes

Chart #2 DECIMAL BYTE	Is Equal To ==	bytes (B)	kilobyte (kB)	megabyte (MB)	gigabyte (GB)	terabyte (TB)	petabyte (PB)	exabyte (EB)	zettabyte (ZB)	yottabyte (YB)
1 byte	==	1 byte	-	-	-	-	-	-	-	-
1 kilobyte	==	1000 bytes	1 kB	-	-	-	-	-	-	-
1 megabyte	==	1000000 bytes	1000 kB	1 MB	-	-	-	-	-	-
		1000 <sup>2</sup>								
1 gigabyte	==	1000000000 bytes	1000000 kB	1000 MB	1 GB	-	-	-	-	-
		1000 <sup>3</sup>	1000 <sup>2</sup>							
1 terabyte	==	1000000000000 bytes	1000000000 kB	1000000 MB	1000 GB	1 TB	-	-	-	-
		1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>						
1 petabyte	==	1000000000000000 bytes	1000000000000 kB	1000000000 MB	1000000 GB	1000 TB	1 PB	-	-	-
		1000 <sup>5</sup>	1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>					
1 exabyte	==	1000000000000000000 bytes	1000000000000000 kB	1000000000000 MB	1000000000 GB	1000000 TB	1000 PB	1 EB	-	-
		1000 <sup>6</sup>	1000 <sup>5</sup>	1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>				
1 zettabyte	==	10000000000000000000 bytes	10000000000000000 kB	1000000000000000 MB	1000000000000 GB	1000000000 TB	1000000 PB	1000 EB	1 ZB	-
		1000 <sup>7</sup>	1000 <sup>6</sup>	1000 <sup>5</sup>	1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>			
1 Yottabyte	==	100000000000000000000 bytes	100000000000000000 kB	10000000000000000 MB	10000000000000000 GB	10000000000000 TB	10000000000 PB	1000000 EB	1000 ZB	1 YB
		1000 <sup>8</sup>	1000 <sup>7</sup>	1000 <sup>6</sup>	1000 <sup>5</sup>	1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>		

METRIC

# BINARY **Bit** Conversion Chart (Base 2, IEC & JEDEC)

**1 kilobit == 1024 bits**  
**1 kibibit == 1024 bits**

Chart #3 BINARY BIT	Is Equal To ==	bit (b)	kilobit (Kbit)	megabit (Mbit)	gigabit (Gbit)	terabit (Tbit)	petabit (Pbit)	exabit (Ebit)	zettabit (Zbit)	yottabit (Ybit)
			kibibit (Kibit)	mebibit (Mibit)	gibibit (Gibit)	tebibit (Tibit)	pebibit (Pibit)	exbibit (Eibit)	zebibit (Zibit)	yobibit (Yibit)
1 bit	==	1 bit	-	-	-	-	-	-	-	-
1 kilobit	==	1024 bits	1 Kbit/Kibit	-	-	-	-	-	-	-
1 kibibit										
1 megabit	==	1048576 bits	1024 Kbit/Kibit	1 Mbit/Mibit	-	-	-	-	-	-
1 mebibit		1024 <sup>2</sup>								
1 gigabit	==	1073741824 bits	1048576 Kbit/Kibit	1024 Mbit/Mibit	1 Gbit/Gibit	-	-	-	-	-
1 gibibit		1024 <sup>3</sup>								
1 terabit	==	1099511627776 bits	1073741824 Kbit/Kibit	1048576 Mbit/Mibit	1024 Gbit/Gibit	1 Tbit/Tibit	-	-	-	-
1 tebibit		1024 <sup>4</sup>								
1 petabit	==	1125899906842624 bits	1099511627776 Kbit/Kibit	1073741824 Mbit/Mibit	1048576 Gbit/Gibit	1024 Tbit/Tibit	1 Pbit/Pibit	-	-	-
1 pebibit		1024 <sup>5</sup>								
1 exabit	==	1.152921504606847e+18 bits	1125899906842624 Kbit/Kibit	1099511627776 Mbit/Mibit	1073741824 Gbit/Gibit	1048576 Tbit/Tibit	1024 Pbit/Pibit	1 Ebit/Eibit	-	-
1 exbibit		1024 <sup>6</sup>								
1 zettabit	==	1.180591620717411e+21 bits	1.152921504606847e+18 Kbit/Kibit	1125899906842624 Mbit/Mibit	1099511627776 Gbit/Gibit	1073741824 Tbit/Tibit	1048576 Pbit/Pibit	1024 Ebit/Eibit	1 Zbit/Zibit	-
1 zebibit		1024 <sup>7</sup>								
1 yottabit	==	1.208925819614629e+24 bits	1.180591620717411e+2 Kbit/Kibit	1.152921504606847e+18 Mbit/Mibit	1125899906842624 Gbit/Gibit	1099511627776 Tbit/Tibit	1073741824 Pbit/Pibit	1048576 Ebit/Eibit	1024 Zbit/Zibit	1 Ybit/Yibit
1 yobibit		1024 <sup>8</sup>								

blue = JEDEC

yellow = IEC

# DECIMAL Bit Conversion Chart (Base 10, METRIC)

## 1 kilobit == 1000 bits

Chart #4 DECIMAL BIT	Is Equal To ==	bit (b)	kilobit (kbit)	megabit (Mbit)	gigabit (Gbit)	terabit (Tbit)	petabit (Pbit)	exabit (Ebit)	zettabit (Zbit)	yottabit (Ybit)
1 bit	!=	1 bit	-	-	-	-	-	-	-	-
1 kilobit	==	1000 bits	1 kbit	-	-	-	-	-	-	-
1 megabit	==	1000000 bits	1000 kbits	1 Mbit	-	-	-	-	-	-
		1000 <sup>2</sup>								
1 gigabit	==	1000000000 bits	1000000 kbits	1000 Mbits	1 Gbit	-	-	-	-	-
		1000 <sup>3</sup>	1000 <sup>2</sup>							
1 terabit	==	1000000000000 bits	1000000000 kbits	1000000 Mbits	1000 Gbits	1 Tbit	-	-	-	-
		1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>						
1 petabit	==	1000000000000000 bits	1000000000000 kbits	1000000000 Mbits	1000000 Gbits	1000 Tbits	1 Pbit	-	-	-
		1000 <sup>5</sup>	1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>					
1 exabit	==	1000000000000000000 bits	1000000000000000 kbits	1000000000000 Mbits	1000000000 Gbits	1000000 Tbits	1000 Pbits	1 Ebit	-	-
		1000 <sup>6</sup>	1000 <sup>5</sup>	1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>				
1 zettabit	==	10000000000000000000 bits	10000000000000000 kbits	1000000000000000 Mbits	1000000000000 Gbits	1000000000 Tbits	1000000 Pbits	1000 Ebits	1 Zbit	-
		1000 <sup>7</sup>	1000 <sup>6</sup>	1000 <sup>5</sup>	1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>			
1 Yottabit	==	100000000000000000000 bits	100000000000000000 kbits	10000000000000000 Mbits	10000000000000000 Gbits	1000000000000 Tbits	1000000000 Pbits	1000000 Ebits	1000 Zbits	1 Ybit
		1000 <sup>8</sup>	1000 <sup>7</sup>	1000 <sup>6</sup>	1000 <sup>5</sup>	1000 <sup>4</sup>	1000 <sup>3</sup>	1000 <sup>2</sup>		

METRIC