

Interleaved 2 of 5 Bar Code QwikTip™ (ASCII – full version)

Interleaved 2 of 5 bar code is a high-density, self-checking, continuous numeric symbology. A complete Interleaved 2 of 5 symbol consist of the following:

Start character | Data Characters | Stop Character

Interleaved 2 of 5 is used to print condensed symbols of paired sets of data. The entire string must contain an even number of digits. If an odd number of digits is present, a leading zero must be added to the beginning of the string.

Example:

Input string is: "038296726"

(Note: there are 9 characters, so add a zero).

New Input string: "0038296726"

Paired Data: "00" "38" "29" "67" "26"

Match the paired data characters to the correlating Hex or Decimal position on the Character Chart below. The final encoded string will look like this:

Paired Data	Start	00	38	29	67	26	Stop
Decimal position	89	100	138	129	167	126	90
Hex position	59	64	8A	81	A7	7E	5A

Interleaved 2 of 5 was designed for character self-checking, eliminating the need for check digit characters. However, check digit characters maximize data integrity and are required by some specifications.

To calculate the check digit, first add up all of the odd numbers in your data string and multiply that sum by 3. Then add up all of the even numbers and add that sum to your original sum. The check digit is the number that, when added to the final sum, produces a multiple of 10.

For example, let's take the data string "123456789".

Add up the odd numbers and multiply by 3: $1 + 3 + 5 + 7 + 9 \cdot 3 = 75$.

Add up the even numbers and add this sum to your previous sum: $2 + 4 + 6 + 8 = 20 + 75 = 95$

The check digit is 5 since $95 + 5 = 100$. When calculating check digits, the data to encode should be an odd number of digits because the check digit is interleaved with the last digit, like so:

Paired Data: "12" "34" "56" "78" "95"

Interleaved 2 of 5 Character Table

Paired Data	Hex Position	Decimal Position	Paired Data	Hex Position	Decimal Position	Paired Data	Hex Position	Decimal Position
00	64	100	34	86	134	68	A8	168
01	65	101	35	87	135	69	A9	169
02	66	102	36	88	136	70	AA	170
03	67	103	37	89	137	71	AB	171
04	68	104	38	8A	138	72	AC	172
05	69	105	39	8B	139	73	AD	173
06	6A	106	40	8C	140	74	AE	174
07	6B	107	41	8D	141	75	AF	175
08	6C	108	42	8E	142	76	B0	176
09	6D	109	43	8F	143	77	B1	177
10	6E	110	44	90	144	78	B2	178
11	6F	111	45	91	145	79	B3	179
12	70	112	46	92	146	80	B4	180
13	71	113	47	93	147	81	B5	181
14	72	114	48	94	148	82	B6	182
15	73	115	49	95	149	83	B7	183
16	74	116	50	96	150	84	B8	184
17	75	117	51	97	151	85	B9	185
18	76	118	52	98	152	86	BA	186
19	77	119	53	99	153	87	BB	187
20	78	120	54	9A	154	88	BC	188
21	79	121	55	9B	155	89	BD	189
22	7A	122	56	9C	156	90	BE	190
23	7B	123	57	9D	157	91	BF	191
24	7C	124	58	9E	158	92	C0	192
25	7D	125	59	9F	159	93	C1	193
26	7E	126	60	A0	160	94	C2	194
27	C8	200	61	A1	161	95	C3	195
28	80	128	62	A2	162	96	C4	196
29	81	129	63	A3	163	97	C5	197
30	82	130	64	A4	164	98	C6	198
31	83	131	65	A5	165	99	C7	199
32	84	132	66	A6	166	START	59	89
33	85	133	67	A7	167	STOP	5A	90

If you are not successful at encoding the Interleaved 2 of 5 bar code yourself, we offer billable assistance. An Architext Technical Support Agreement was provided to you. If you require our help, simply sign the agreement and fax it back to us.