

FIGI Check-Digit Calculation

The Financial Instrument Global Identifier (FIGI) is a 12-digit alphanumeric, randomly generated ID. The first three positions are always filled with 'BBG'. The 'BB' is to identify the Certified Provider of the FIGI, Bloomberg LP. The 'G' is to identify the FIGI as a global identifier. Characters 4 -11 will be alphanumeric (less vowels), and the 12th digit will be numeric and will serve as a check-digit. A check-digit is essential since it is a means of validating the accuracy of the entire number. The check-digit formula is based on the Modulus 10 Double Add Double technique and will be applied to every FIGI number. To calculate the check-digit, using the first 11 digits and beginning at the last digit and working right to left, every second digit is multiplied by two. Letters are converted to numbers as illustrated below. The resulting string of digits (numbers greater than 10 become two separate digits) are added up. Subtract the total from the next higher number ending in zero. If the total obtained when summing up the digits is a number ending in zero, then the check digit is zero.

Alphabetical characters are assigned a numeric value. The letter A will be 10 and the value of each subsequent letter will be the preceding letter's value incremented by 1. However, note that vowels will not be used within the construction of any FIGI.

A = 10	F = 15	K = 20	P = 25	U = 30	Z = 35
B = 11	G = 16	L = 21	Q = 26	V = 31	
C = 12	H = 17	M = 22	R = 27	W = 32	
D = 13	I = 18	N = 23	S = 28	X = 33	
E = 14	J = 19	O = 24	T = 29	Y = 34	

Example (IBM's New York listing) : The 11-digit FIGI is BBG00BLNQ1

B	B	G	0	0	0	B	L	N	Q	1	
11	11	16	0	0	0	11	21	23	26	1	←convert letters to numeric value here
1	2	1	2	1	2	1	2	1	2	1	←multiply every other value by 2
11	22	16	0	0	0	11	42	23	52	1	←the resulting values after multiplying in above step

Add up the resulting values above :

$$1+1+2+2+1+6+0+0+0+1+1+4+2+2+3+5+2+1 = 34$$

Check digit 6

40 ←the next highest number ending in zero

The number with check digit would be BBG00BLNQ16