How to Generate Your GS1 Barcode Numbers

Standard Membership Barcode Number Breakdown

<table>
<thead>
<tr>
<th>Country Prefix</th>
<th>Company Prefix</th>
<th>Running Number</th>
<th>Check Digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>955</td>
<td>543210</td>
<td>000</td>
<td>8</td>
</tr>
</tbody>
</table>

1) You must first find out what is your GS1 Company Prefix.

Your assigned company prefix can be found on your GS1 Membership Approval Letter. It looks like this:

955 <company prefix>

e.g. 955 xxxxxxx
(Standard Membership, 6 digit prefix)
2) You now need to add in the running number after your company prefix. Note: you assign each of your **product models** with a barcode number.

Standard Membership = up to **1000 numbers**, from ‘000’ to ‘999’.

955xxxxxx000C
955xxxxxx001C
955xxxxxx002C
955xxxxxx003C

: 
955xxxxxx999C

*Note: “C” represents the Check Digit*
3) You now need to calculate the barcode number’s Check Digit. You can do so by following the steps below:

i) Go to GS1 Malaysia’s Check Digit Calculator. Web Address:

The page looks like this:

Calculate Your Check Digit

The all-important check digit en

All Global Trade Item Numbers (GTINs) and Global Location result of an algorithm (called the Modulo-10 algorithm) which

You can use the below check digit calculator to obtain your l

GTIN Selection : GTIN-13

Item Reference : 955100010000

Calculate Reset

Check Digit : 5

Global Trade : 9551000100005
In the **Item Reference** input field, key in the **12-digit number** (without the “C”) you put together earlier.

GTIN Selection : GTIN-13

Item Reference : 955100010000

Check Digit : 

Global Trade : 

Calculate  Reset
ii) Select ‘**GTIN-13**’ from the GTIN Selection drop-down list for *product-level or inner pack-level* 13-digit barcode numbers, and ‘**GTIN-14**’ for *carton-level or pallet-level* 14-digit barcode numbers.

![Dropdown menu with GTIN-13 selected]

iii) Click **Calculate**.
iv) The complete barcode number will be generated and shown in the Global Trade field.

<table>
<thead>
<tr>
<th>GTIN Selection</th>
<th>GTIN-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item Reference</td>
<td>955100010000</td>
</tr>
<tr>
<td>Check Digit</td>
<td>5</td>
</tr>
<tr>
<td>Global Trade</td>
<td>9551000100005</td>
</tr>
</tbody>
</table>

v) Copy the resulting barcode number to your list for safekeeping and processing.
vi) You may also manually calculate the Check Digit by using the formula below:

<table>
<thead>
<tr>
<th>ID Key Format</th>
<th>Digit positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTIN-8</td>
<td>N₁  N₂  N₃  N₄  N₅  N₆  N₇  N₈</td>
</tr>
<tr>
<td>GTIN-12</td>
<td>N₁  N₂  N₃  N₄  N₅  N₆  N₇  N₈</td>
</tr>
<tr>
<td>GTIN-13</td>
<td>N₁  N₂  N₃  N₄  N₅  N₆  N₇  N₈</td>
</tr>
<tr>
<td>GTIN-14</td>
<td>N₁  N₂  N₃  N₄  N₅  N₆  N₇  N₈</td>
</tr>
<tr>
<td>GSIN</td>
<td>N₁  N₂  N₃  N₄  N₅  N₆  N₇  N₈</td>
</tr>
<tr>
<td>SCC</td>
<td>N₁  N₂  N₃  N₄  N₅  N₆  N₇  N₈</td>
</tr>
</tbody>
</table>

**Step 1:** Multiply value of each position by

\[ \begin{array}{ccccccccccccccc}
\times3 & \times1 & \times3 & \times1 & \times3 & \times1 & \times3 & \times1 & \times3 & \times1 & \times3 & \times1 & \times3 & \times1 \\
\end{array} \]

**Step 2:** Add results together to create **sum**

**Step 3:** Subtract the **sum** from nearest equal or higher multiple of ten = **Check Digit**

vii) The following is an example of the calculation for a GS1 13-digit barcode number (GTIN-13):

<table>
<thead>
<tr>
<th>Positions</th>
<th>N₁</th>
<th>N₂</th>
<th>N₃</th>
<th>N₄</th>
<th>N₅</th>
<th>N₆</th>
<th>N₇</th>
<th>N₈</th>
<th>N₉</th>
<th>N₁₀</th>
<th>N₁₁</th>
<th>N₁₂</th>
<th>N₁₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number <strong>without</strong> Check Digit</td>
<td>6</td>
<td>2</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Number <strong>with</strong> Check Digit</td>
<td>6</td>
<td>2</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Step 1:** Multiply by

\[ \begin{array}{ccccccccccccccc}
x & x & x & x & x & x & x & x & x & x & x & - & - & - \\
1 & 3 & 1 & 3 & 1 & 3 & 1 & 3 & 1 & 3 & 1 & 3 & - \\
\end{array} \]

**Step 2:** Add results to create **sum**

\[ 669301215023 = 57 \]

**Step 3:** Subtract the **sum** from nearest equal or higher multiple of ten = 60 - 57 = 3 (Check Digit)
viii) Once you have manually generated your barcode, GS1 recommends you check your barcode numbers against the ones generated from the Check Digit Calculator.

ix) If you encountered problems generating your barcode numbers, GS1 Malaysia can provide assistance in barcode number generation for a modest fee of **RM 50.00 per 50 barcode numbers**.

x) If you have any further questions, kindly contact GS1 Malaysia using the methods below:

a. Whatsapp – **011-16168228** or **014-3933228**

b. Email – **databank@gs1my.org**

---

Thank You.