Assigning a GTIN-13
Fact Sheet

The GTIN-13 is one of the most commonly used identification numbers in the GS1 system. The GTIN-13 is formed using a GS1 Company Prefix (allocated by GS1 Australia or one of the other GS1 Member Organisations) an Item Reference and a Check Digit (see Table 1).

Table 1: GTIN-13 structure

GS1 Company Prefix →								← Item Reference				Check Digit
N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13

The GS1 Company Prefix is allocated to you as a member company.

The Item Reference is a non-significant number that is assigned by the member company. It is recommended that the Item Reference be assigned sequentially as it is purely for identification purposes and the individual digits in the number do not relate to anything. Each item should be numbered to the lowest level of identification, for example: size, colour, model, finish, type, style.

The Check Digit is mathematically calculated to ensure that the whole number is correct. Correct calculation is essential for successful scanning of the barcode:

- A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org
- For manual calculation of the Check Digit refer to the Manual Check Digit Calculation Fact Sheet.
- For either method of calculating the Check Digit use the GTIN-13 option.

Important: If you are an Individual Barcode Number Subscriber Member you do not have a GS1 Company Prefix. Individual GTIN(s) should been allocated to you and assigned to your product.

Please login to your MyGS1Member Portal (https://www.gs1au.org/mygs1/login-mygs1) to view your allocated number/number range.

Note: Once a GTIN-13 has been assigned to a trade item, and it has been introduced to the market, under no circumstances must it be transferred or reused for any other trade item.

Commonly used in retail environment there are two common forms of a product, often called a trade item:

- Fixed measure trade item - An item always produced in the same pre-defined version (e.g., type, size, weight, contents, design) that may be sold at any point in the supply chain
- Variable measure trade item – A trade item which may be traded without a pre-defined measure, such as its weight or length

A GTIN-13 is used to identify in either of these types of products, but you will have to consider a few other things in how you represent this number in a barcode.

What barcode to use at POS?

Fixed Measure trade items:

- EAN-13 barcode is the most commonly used barcode globally.

- GS1 DataBar Retail POS family may be used for some product types like loose produce.
- You can add a 2D barcode (GS1 DataMatrix, QR Code with GS1 Digital Link or DataMatrix with GS1 Digital Link) to **addition** to EAN-13 or GS1 DataBar

Variable Measure trade items:

- For Variable trade items you have to consider the additional data to be encoded to complete a transaction, like the weight or price and this requires another type of barcode to be used, either GS1 DataBar Expanded or GS1 DataBar Expanded Stacked. You can add a 2D barcode (GS1 DataMatrix, QR Code with GS1 Digital Link or DataMatrix with GS1 Digital Link) to **addition** to linear barcodes **Note:** Companies should check with their trading partners prior to implementing the use of any symbology.

Other Resources:

EAN-13 factsheet

GS1 DataBar at POS factsheet

GS1 DataMatrix factsheet

GTIN Management – Guiding Principles and Rules