

2D Barcodes in Retail Test Cards

Test Cards

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Print Guidelines

Prior to conducting your test scanning of the 2D barcodes, please PRINT copies of each barcode test card. These are available on the following pages. The test barcodes have previously been printed using home office and industrial equipment. In both cases, the scans occurred without issue. Scanning the barcodes directly from a screen may be attempted, however this is not recommended. The scanning of PRINTED barcodes is a more reliable method.

The following should be considered when determining how to print the barcode test cards:

- A4 white matte paper is recommended
- Ensure that the printer is working properly, and the ink is not low
- Shiny or glossy paper will be more difficult to scan from than a matte or less reflective alternative
- Printing on both sides of a page may be problematic if a scanning system reads from multiple angles
- Avoid using paper that is thin or otherwise transparent. This is especially important if printing on both sides of a page where opaque paper is required
- If mailing is required, caution must be taken to avoid damaging the test cards.

Test Cards

The below 2D Barcode Test Cards are available on the following pages for you to print.

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1 Phase 1 – Minimum Requirement for Ambition 2027

1.1 GS1 DataMatrix

2D barcode: GS1 DataMatrix

Barcode data: 0109521101530018

GTIN-13: 09521101530018

Note: GTIN-8, GTIN-12, GTIN-13 SHALL be padded to 14-digit format

Minimum transmitted data:

Mode 1*: 09521101530018

*Minimum requirement for Ambition 2027

Mode 2: 0109521101530018





1.2 QR Code (GS1 Digital Link URI)

2D barcode: QR Code (GS1 Digital Link URI)

Barcode data: https://example.com/01/09521101530018

GTIN-13: 09521101530018

Note: GTIN-8, GTIN-12, GTIN-13 SHALL be padded to 14-digit format

Minimum transmitted data:

Mode 1*: 09521101530018

*Minimum requirement for Ambition 2027

Mode 2: 0109521101530018

Parsed data: (01)09521101530018



(01) 09521101530018



1.3 Data Matrix (GS1 Digital Link URI)

2D barcode: Data Matrix (GS1 Digital Link URI)

Barcode data: https://example.com/01/09521101530018

GTIN-13: 09521101530018

Note: GTIN-8, GTIN-12, GTIN-13 SHALL be padded to 14-digit format

Minimum transmitted data:

Mode 1*: 09521101530018

*Minimum requirement for Ambition 2027

Mode 2: 0109521101530018





2 Phase 2 – Co-Located EAN-13 & 2D Barcode

2.1 Co-Located EAN-13 and GS1 DataMatrix

Linear barcode: EAN-13

Barcode data: 0109521101530018

GTIN-13: 95211015300182D barcode: GS1 DataMatrix

Barcode data: 019521101530018

GTIN-13: 09521101530018

Note: GTIN-8, GTIN-12, GTIN-13 SHALL be padded to 14-digit format

Minimum transmitted data:

Mode 1*: 09521101530018 or 9521101530018*Minimum requirement for Ambition 2027

Mode 2: 0109521101530018

Mode 3:11111111~9521101530018 and 111111111~0109521101530018
 11111111 could be any numeric combination but both label identifiers should be the same







2.2 Co-Located EAN-13 and QR Code (GS1 Digital Link URI)

Linear barcode: EAN-13

Barcode data: 9521101530018GTIN-13: 9521101530018

2D barcode: QR Code (GS1 Digital Link URI)

Barcode data: https://example.com/01/09521101530018

GTIN-13: 09521101530018

Note: GTIN-8, GTIN-12, GTIN-13 SHALL be padded to 14-digit format

Minimum transmitted data:

Mode 1*: 09521101530018 or 9521101530018*Minimum requirement for Ambition 2027

Mode 2: 0109521101530018

Mode 3:11111111~ 9521101530018 and 111111111~0109521101530018

- 11111111 could be any numeric combination but both label identifiers should be the same







2.3 Co-Located EAN-13 and Data Matrix (GS1 Digital Link URI)

Linear barcode: EAN-13

Barcode data: 9521101530018GTIN-13: 9521101530018

2D barcode: Data Matrix (GS1 Digital Link URI)

Barcode data: https://example.com/01/09521101530018

GTIN-13: 09521101530018

Note: GTIN-8, GTIN-12, GTIN-13 SHALL be padded to 14-digit format

Minimum transmitted data:

Mode 1*: 09521101530018 or 9521101530018*Minimum requirement for Ambition 2027

Mode 2: 0109521101530018

Mode 3:11111111~ 9521101530018 and 111111111~0109521101530018 11111111 could be any numeric combination but both label identifiers should be the same







3 Phase 3 – Reverse Reflectance 2D Barcode

3.1 QR Code (GS1 Digital Link URI) reverse reflectance

2D barcode: QR Code (GS1 Digital Link URI)

Barcode data: https://example.com/01/09521101530018

GTIN-13: 09521101530018
Note: GTIN-8, GTIN-12, GTIN-13 SHALL be padded to 14-digit format

Minimum transmitted data:

Mode 1*: 09521101530018*Minimum requirement for Ambition 2027

Mode 2: 0109521101530018Parsed data: (01)09521101530018



(01) 09521101530018



3.2 GS1 DataMatrix reverse reflectance

2D barcode: GS1 DataMatrix

Barcode data: 09521101530018

GTIN-13: 09521101530018

Note: GTIN-8, GTIN-12, GTIN-13 SHALL be padded to 14-digit format

Minimum transmitted data:

Mode 1*: 09521101530018 or 9521101530018
*Minimum requirement for Ambition 2027

□ Mode 2: 0109521101530018

Parsed data: (01)09521101530018



(01) 0 9521101 53001 8