



GS1 DataBar The Technical Side

The global language of business

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Old RSS Name

New GS1 DataBar™

RSS-14	→	GS1 DataBar Omnidirectional
RSS-14 Truncated	→	GS1 DataBar Truncated
RSS-14 Stacked	→	GS1 DataBar Stacked
RSS-14 Stacked Omnidirectional	→	GS1 DataBar Stacked Omnidirectional
RSS Limited	→	GS1 DataBar Limited
RSS Expanded	→	GS1 DataBar Expanded
RSS Expanded Stacked	→	GS1 DataBar Expanded Stacked

The GS1 DataBar Family

POS Symbols



GS1 DataBar Stacked Omnidirectional



GS1 DataBar Omnidirectional



GS1 DataBar Expanded



GS1 DataBar Expanded Stacked

Hand Held Scanners



GS1 DataBar Truncated



GS1 DataBar Limited



GS1 DataBar Stacked

- Encodes a Global Trade Item Number (GTIN) and AI's (Application Identifiers)
- 5 Symbologies encode GTIN only
- 2 Symbologies encode GTIN plus additional AI's
- GS1 DataBar holds a 14-digit number
- GS1 DataBar can carry GTIN-12, GTIN-13 & GTIN-14

- ***GS1 DataBar scanned at Retail Point-of-Sale (POS) encodes a GTIN-12 or GTIN-13***
- ***GS1 DataBar scanned in General Distribution encodes a GTIN-12, GTIN-13 or GTIN-14***
- How does 12 & 13 digit GTINs get to 14 digits

Encoding GTIN in GS1 DataBar

GTIN-13 (EAN-13)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	CP	CP	CP	CP	CP	CP	CP/IR	CP/IR	CP/IR	CP/IR	CP/IR	IR	CD
0	8	2	5	6	7	0	9	1	2	3	4	5	4

GTIN-12 (UPC-12)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	0	CP	CP	CP	CP	CP	CP	CP/IR	CP/IR	CP/IR	IR	IR	CD
0	0	8	2	5	6	7	0	1	2	3	4	5	9

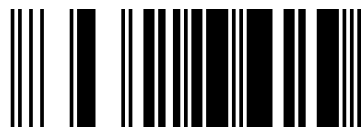
CP = GS1 Company Prefix

IR = Item Reference

CD = Check Digit

GTIN Only GS1 DataBar's

GS1 DataBar Omnidirectional



(01) 00614141999996

GS1 DataBar Limited



(01) 00614141999996

GS1 DataBar Truncated



(01) 00614141999996

GS1 DataBar Stacked Omnidirectional



(01) 00614141999996

GS1 DataBar Stacked



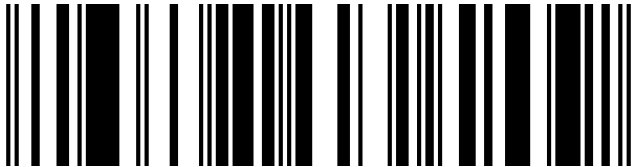
(01) 00614141999996

- Numeric characters (0-9) – No alpha numeric, no special characters...
- Constructed of 4 segments vs EAN 2 segments
- Fixed data length - 14 digits (encodes 13 with an implied check digit)
- AI (01) is implied
- Bi-Directionally decodable
- No Quiet Zone required, however leftmost element is a 1X space
 - (left and rightmost in GS1 DataBar Expanded)

- Space Requirements:
- GS1 DataBar Omnidirectional = 96X wide, 33X high
- GS1 DataBar Stacked Omnidirectional = 50X wide, 69X high (3X separator pattern)
- GS1 DataBar Truncated = 96X wide, 13X high
- GS1 DataBar Stacked = 50X wide, 13X high (1X separator pattern)
- Like EAN symbols – the X dimension is determined by the DPI (Dots Per Inch) of the printer (per the Gen Specs)

GTIN + Application Identifiers

GS1 DataBar Expanded



(01) 00614141999996



GS1 DataBar Expanded Stacked



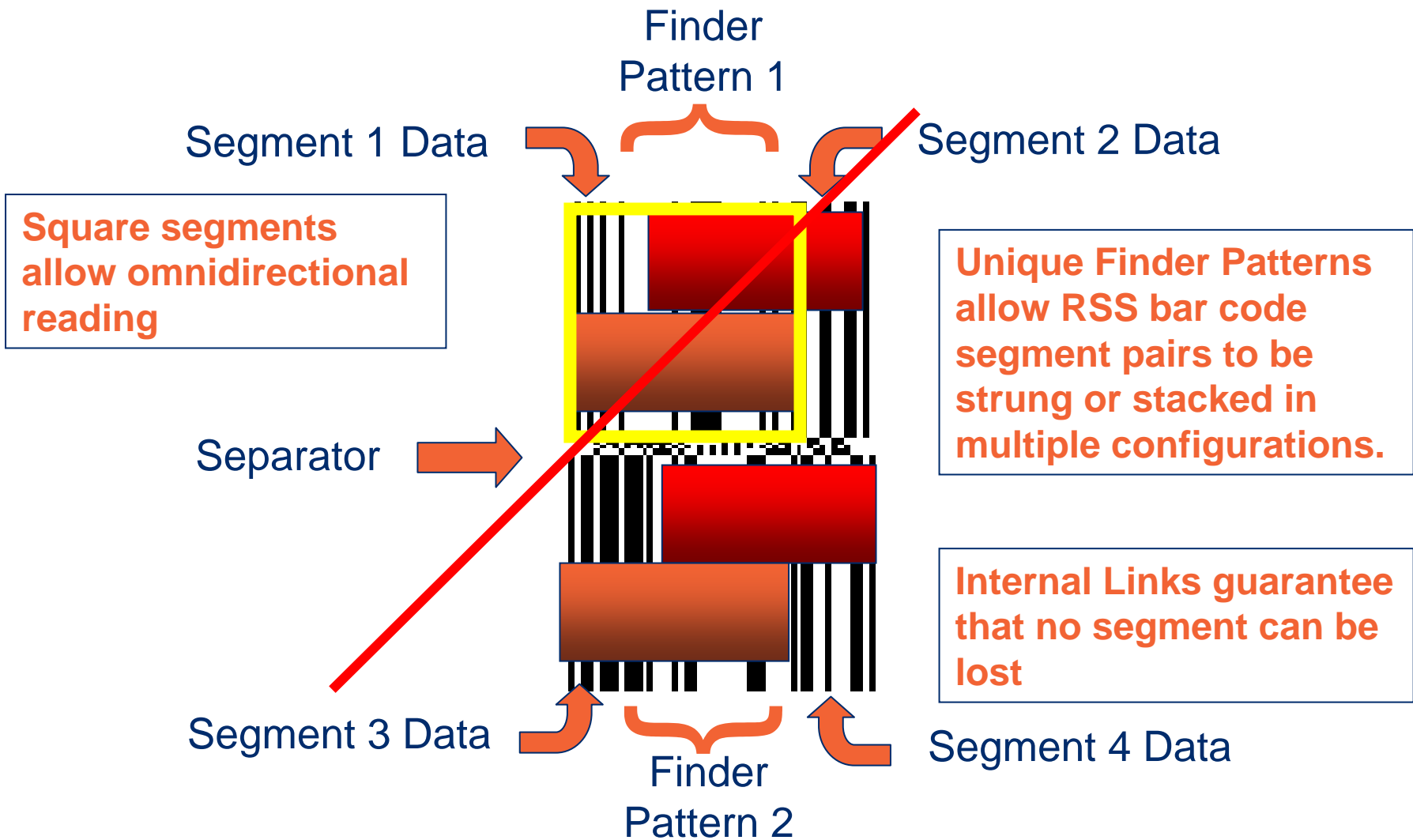
(01) 00614141999996

- The GS1 DataBar Expanded family has a capacity of up to 74 Numeric Characters or 41 Alpha Numeric
- Encode the GTIN the same way as “GTIN Only” GS1 DataBar Family plus any AI’s up to 74 or 41 alpha numeric characters
- Encode fixed length AI’s first, then any variable length AI’s
 - This will keep the bar code compressed
- No Quiet Zones required – however left & right most element is a space

- Space Requirements:
- Stackable - 2 segments per row - max 11 rows
- Requires even number of segments per row
- Segments are always the same width
- Maximum symbol size is 22 segments
- Each row is 34X high w/3X separator pattern
- Like EAN symbols – the X dimension is determined by the DPI (Dots Per Inch) of the printer (per the Gen Specs)

- Numeric characters (0-9) – No alpha numeric, no special characters...
- *Constructed of 2 segments*
- Fixed data length - 14 digits (encodes 13 with an implied check digit)
- AI (01) is implied
- No Quiet Zones required – however left most element is a space
- *74X wide, 10X high*
- *Limited to GTIN-12, GTIN-13 and GTIN-14 with Indicator Digit 1 ONLY (no other number can be used as an Indicator Digit)*

GS1 DataBar Segements



- All GS1 DataBar symbols include a linkage flag.
- If the linkage flag is clear i.e. equal to 0 then the GS1 DataBar symbol stands alone.
- If the linkage flag is set i.e. equal to 1 then a 2D component is associated with the GS1 DataBar Family linear component and its separator pattern.