WR #	GSCN Name	Effective Date
WR 24-354	Alignment of SST 4 and SST 9 with Note on 2D X-dimension	May-2025

Associated Work Request (WR) Number:

Background:

SSTs 4 and 9 have X-dimensions inconsistent with the note on 2D X-dimension as it relates to the need to be 1.5 times the equivalent printing X-dimension allowed for the linear barcodes.

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5.12.3.4 Symbol specification table 4 – Trade items not scanned at POS or general retail - also not scanned in general distribution or regulated healthcare (retail or non-retail)

Figure 5.12.3.4-1. GS1 symbol specification table 4

Symbol(s) specified	(*) X-dimension mm (inches)			(**) Minimum symbol height for given X mm (inches)			Quiet Zone		Minimum quality specification
	Minimum	Target	Maximum	For minimum X-dimension	For target X-dimension	For maximum X-dimension	Left	Right	
EAN-13	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	18.28 (0.720")	22.85 (0.900")	45.70 (1.800")	11*X*	7*X*	1.5/06/660
EAN-8	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	14.58 (0.574")	18.23 (0.718")	36.46 (1.435")	7*X*	7*X*	1.5/06/660
UPC-A	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	18.28 (0.720")	22.85 (0.900")	45.70 (1.800")	9*X*	9*X*	1.5/06/660
UPC-E	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	18.28 (0.720")	22.85 (0.900")	45.70 (1.800")	9*X*	7*X*	1.5/06/660
GS1 DataBar Omni-directional	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	8.71 (0.343")	10.90 (0.429")	21.78 (0.858")	None	None	1.5/06/660
GS1 DataBar Stacked Omni-directional	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	18.24 (0.718")	27.78 (1.094")	45.54 (1.794")	None	None	1.5/06/660
GS1 DataBar Expanded	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	8.99 (0.354")	11.23 (0.442")	22.44 (0.883")	None	None	1.5/06/660
GS1 DataBar Expanded Stacked	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	18.75 (0.738")	23.44 (0.923")	46.86 (1.845")	None	None	1.5/06/660
GS1 DataBar Stacked	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	3.43 (0.135")	4.29 (0.169")	8.58 (0.338")	None	None	1.5/06/660
GS1 DataBar Limited	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	2.64 (0.104")	3.30 (0.130")	6.60 (0.260")	None	None	1.5/06/660
GS1 DataBar Truncated	0.264 (0.0104")	0.330 (0.0130")	0.660 (0.0260")	3.43 (0.135")	4.29 (0.169")	8.58 (0.338")	None	None	1.5/06/660
ITF-14	0.250 (0.00984")	0.495 (0.0195")	0.495 (0.0195")	12.70 (0.500")	12.70 (0.500")	12.70 (0.500")	10*X*	10*X*	1.5/06/660
GS1- 128	0.250 (0.00984")	0.495 (0.0195")	0.495 (0.0195")	12.70 (0.500")	12.70 (0.500")	12.70 (0.500")	10*X*	10*X*	1.5/06/660
GS1 DataMatrix (ECC 200) (***)	0.375~~380~~ (0.0148~~50~~ ")	0.495~~380~~ (0.0195~~50~~ ")	0.990~~495~~ (0.0390~~195~~ ")	Height is determined by X-dimension and data that is encoded			1X on all four sides		1.5/08/660
GS1 QR Code (***)	0.37~~580~~ (0.0148~~50~~ ")	0.495~~380~~ (0.0195~~50~~ ")	0.990~~495~~ (0.0390~~195~~ ")	Height is determined by X-dimension and data that is encoded			4X on all four sides		1.5/08/660

(*) ITF-14 symbols with X-dimensions below 0.635 millimetre (0.0250 inch) SHOULD NOT be printed directly on corrugate with conventional (plate based) processes. The ITF-14 symbol's bar width ratio target is 2.5:1 and the acceptable range is 2.25:1 to 3:1.

Section 5.12.6 gives full details on when barcodes can be printed at less than the minimum X-dimension. In general, barcodes may only be printed using an X-dimension below 0.264 millimetre (0.0104 inch) or 80 percent magnification under the following conditions:

- The allowance for X-dimensions between 0.249 millimetre (0.0098 inch) or 75 percent magnification and 0.264 millimetre (0.0104 inch) or 80 percent magnification is only applicable to on demand (e.g., thermal, laser) print processes. For all other printing processes, an X-dimension of 0.264 millimetre (0.0104 inch) is attainable and is the minimum allowable size.
- When printing a minimum symbol with any method of printing, the area provided for printing the symbol and the required Quiet Zone should never be less than the area required for an X-dimension of 0.264 millimetre (0.0104 inch).
- When printing a minimum symbol with any method of printing, the symbol height SHALL NOT be truncated.

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5.12.3.9 Symbol specification table 9 - GS1 keys GDTI, GRAI, GIAI and GLN

Figure 5.12.3.9-1. GS1 symbol specification table 9

Symbol(s) specified	X-dimensions mm(inches)			Minimum symbol height for given X mm(inches			Quiet Zone		Minimum quality specification
	Minimum	Target	Maximum	For minimum X-dimension	For target X-dimension	For maximum X-dimension	Left	Right	
GS1- 128	0.250 (0.0098")	0.250 (0.0098")	0.495 (0.0195")	12.70 (0.500")	12.70 (0.500")	12.70 (0.500")	10*X*	10*X*	1.5/06/660
GS1 DataMatrix (ECC 200) (*)	0.37580 (0.01485 0")	0.37580 (0.01485 0")	0.743495 (0.02931 95")	Height is determined by X-dimension and data that is encoded			1X on all four sides		1.5/08/660
GS1 QR Code (*)	0.37580 (0.0150")	0.37580 (0.01485 0")	0.743495 (0.02931 95")	Height is determined by X-dimension and data that is encoded			4X on all four sides		1.5/08/660

(*) 2D X-dimension - Optical effects in the image capture process require that the GS1 DataMatrix and GS1 QR Code symbols be printed at 1.5 times the equivalent printing X-dimension allowed for linear symbols.

Note: See section 2.7 to ensure the correct symbol specification table is used.

Note: This table contains several symbol options. All are permitted to promote backward compatibility, but section 2 application standards define which symbols are the preferred options for the future.

Note: For location marking, barcodes may be printed at a higher maximum X-dimension: GS1-128 at 1.016 mm (0.0400 inches), GS1 DataMatrix and GS1 QR Code at 1.520 mm (0.0600 inches). See section 2.4.2.

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