FIELD GUIDE · PULSE CHECK

Pulse Check: EAN-13

Limits from GS1 General Specifications, Release 26.0 · checked 28 Oct 2026

Printulse

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In the file

- [ ] **The code type fits the pack**
  The checkout code for consumer packs in Europe. Cartons carry ITF-14 or GS1-128.
- [ ] **EAN-13 has 13 digits and a valid check digit**
  With a wrong check digit the number is not a valid GTIN, however good the bars look.
- [ ] **The digits under the bars match the bars**
  Decode the code in the PDF and compare it with what is printed under it.

Size and space



Illustration, not for printing. Drawn at X = 0.330 mm (target), checkout.

Checkout

	Min	Target	Max
X-dimension, mm	0.264	0.330	0.660
Bar height, mm (minimum)	18.28	22.85	45.70
Height if shortened, mm (last resort)	7.31	9.14	18.28
Quiet zone, left (11X), mm	2.90	3.63	7.26
Quiet zone, right (7X), mm	1.85	2.31	4.62

- [ ] **X-dimension is inside the range**
  X is the width of the narrowest bar (the module of a 2D code). Use the range of the context where the code is scanned.
- [ ] **The bars are tall enough**
  The minimum grows with X. Since August 2026, GSCN 26-144 lets checkout bars be shortened when the pack has no room: by up to 60% of the minimum, so at least 40% remains. Last resort, because omnidirectional scanning gets worse. Treat it as a warning, not an error. The height does not include the digits under the bars.
- [ ] **The quiet zones are empty**
  The values are in the table, in X and in mm. No artwork and no text inside.

Before and after press

- [ ] **The retailer's or partner's spec is checked**
  It can be stricter than GS1. If it is, their profile wins over the table.
- [ ] **Bar growth and shrink are agreed with the press room**
  The PDF does not contain it. The print profile and the technologist set it.
- [ ] **A printed sample is graded with a verifier**
  ISO/IEC 15416 for linear codes. Minimum grade / aperture / wavelength: 1.5/06/660. A decoder only shows that the code reads. It does not grade print quality.

Scan to open the full page: tick this list on screen, check another code and get the latest version.

Sources: GS1 General Specifications, Release 26.0 (Jan 2026), table 5-44; GSCN 26-144. Checked 28 Oct 2026.