

## har-flex HD-Card Edge 120p PL1 SAMPLE



Image is for illustration purposes only. Please refer to product description.

|                    |   |
|--------------------|---|
| Part number        | 15 04 120 2001 333  |
| Specification      | har-flex HD-Card Edge 120p PL1<br>SAMPLE  |
| HARTING eCatalogue | <a href="https://harting.com/15041202001333">https://harting.com/15041202001333</a> |

### Identification

|                |  |
|----------------|--|
| Category       | Connectors   |
| Series         | har-flex®  |
| Identification | HD-Card Edge   |
| Element        | Connector  |
| Features       | The sample packaging is not suitable for automated assembly. |

### Version

|                    |  |
|--------------------|--|
| Termination method | Reflow soldering termination (SMT)       |
| Connection type    | Motherboard to daughtercard<br>Mezzanine |
| Number of contacts | 120                                      |
| Pack contents      | Sample                                   |

### Technical characteristics

|                                    |   |
|------------------------------------|---|
| Contact rows                       | 2   |
| Contact spacing (termination side) | 0.8 mm  |
| Contact spacing (mating side)      | 0.8 mm  |
| Data rate                          | 25 Gbit/s   |
| Clearance distance                 | ≥0.2 mm Backplane<br>≥0.53 mm Connector<br>≥0.1 mm Daughtercard |
| Creepage distance                  | ≥0.2 mm Backplane<br>≥0.53 mm Connector<br>≥0.1 mm Daughtercard |
| Limiting temperature               | -55 ... +125 °C   |



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## Technical characteristics

|                                  |                                     |
|----------------------------------|-------------------------------------|
| Insertion force                  | ≤85 N                               |
| Withdrawal force                 | ≥24 N                               |
| Performance level                | 1                                   |
| Mating cycles                    | ≥200                                |
| Isolation group                  | IIIa (175 ≤ CTI < 400)              |
| Moisture Sensitivity Level (MSL) | 1 acc. to ECA/IPC/JEDEC J-STD-020D  |
| Process Sensitivity Level (PSL)  | R0 acc. to ECA/IPC/JEDEC J-STD-020D |
| Coplanarity of contacts          | ≤0.15 mm                            |

## Material properties

|   |  |
|---|--|
| Material (insert)                         | Liquid crystal polymer (LCP)                                   |
| Colour (insert)                           | Black  |
| Material (contacts)                       | Copper alloy   |
| Surface (contacts)                        | Noble metal over Ni Mating side<br>Sn over Ni Termination side |
| Material flammability class acc. to UL 94 | V-0  |
| RoHS                                      | compliant  |
| ELV status                                | compliant  |
| China RoHS                                | e  |
| REACH Annex XVII substances               | Not contained  |
| REACH ANNEX XIV substances                | Not contained  |
| REACH SVHC substances                     | Not contained  |
| California Proposition 65 substances      | Not contained  |

## Commercial data

|                                |  |
|--------------------------------|--|
| Packaging size                 | 1  |
| Country of origin              | China                                    |
| European customs tariff number | 85366990                                 |
| GTIN                           | 5713140205451                            |
| eCl@ss                         | 27460201 PCB connector (board connector) |
| ETIM                           | EC002637                                 |
| UNSPSC 24.0                    | 39121415                                 |



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Data Transmission Protocols

| <b>har-flex HD-Card Edge Family Product Data Rate: 25Gbit/s</b> |                         |                                |                                |                               |
|---|-------------------------|--------------------------------|--------------------------------|-------------------------------|
| Protocol  | Serial Data Rate / Pair | Single Interface Short Channel | Double Interface Short Channel | Double Interface Long Channel |
| 400GBASE-KR4  | 56 Gbit/s               | Not recommended                | Not recommended                | Not recommended               |
| 100GBASE-KR4  | 25 Gbit/s               | suitable                       | Not recommended                | Not recommended               |
| 40GBASE-KR4   | 10 Gbit/s               | suitable                       | suitable                       | suitable                      |
| Infiniband HDR  | 50 Gbit/s               | Not recommended                | Not recommended                | Not recommended               |
| Infiniband HDR  | 25.8 Gbit/s             | Not recommended                | Not recommended                | Not recommended               |
| Infiniband FDR  | 14 Gbit/s               | suitable                       | suitable                       | suitable                      |
| PCIe Gen 4  | 16 Gbit/s               | suitable                       | suitable                       | suitable                      |
| PCIe Gen 3  | 8 Gbit/s                | suitable                       | suitable                       | suitable                      |
| PCIe Gen 2  | 5 Gbit/s                | suitable                       | suitable                       | suitable                      |
| USB 3.1   | 5 Gbit/s                | suitable                       | suitable                       | suitable                      |
| USB 3.0   | 5 Gbit/s                | suitable                       | suitable                       | suitable                      |
| Hypertransport 3  | 5.2 Gbit/s              | suitable                       | suitable                       | suitable                      |
| SATA 3.2  | 16 Gbit/s               | suitable                       | suitable                       | suitable                      |
| SAS 4.0   | 22.5 Gbit/s             | Not recommended                | Not recommended                | Not recommended               |
| SAS 3.0   | 12 Gbit/s               | suitable                       | suitable                       | suitable                      |
| SAS 2.0   | 6 Gbit/s                | suitable                       | suitable                       | suitable                      |

The protocol recommendations are based on a set of defined channels. For more information please refer to the reference channel descriptions:

[https://d33y5j6752j001.cloudfront.net/asset/201312468866/document\\_ifd9i1f1bd01t6mk6dr9s45u2u](https://d33y5j6752j001.cloudfront.net/asset/201312468866/document_ifd9i1f1bd01t6mk6dr9s45u2u)