

# har-flex HD-Card Edge 40p THR PL1 200pcs



| Part number        | 15 03 040 2401 000                          |
|--------------------|---|
| Specification      | har-flex HD-Card Edge 40p THR PL1<br>200pcs |
| HARTING eCatalogue | https://b2b.harting.com/15030402401000      |

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

### Identification

| Category       | Connectors                            |
|----------------|---------------------------------------|
| Series         | har-flex <sup>®</sup>                 |
| Identification | HD-Card Edge                          |
| Element        | Connector                             |
| Features       | Termination method of hold downs: THR |

### Version

| Termination method | Reflow soldering termination (SMT)    |  |
|--------------------|---------------------------------------|--|
| Connection type    | Motherboard to daughtercard Mezzanine |  |
| Number of contacts | 40                                    |  |
| Pack contents      | 200 pieces on reel                    |  |

#### 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 ≥0.53 mm Connector ≥0.1 mm Daughtercard |
| Creepage distance                  | ≥0.2 mm Backplane ≥0.53 mm Connector ≥0.1 mm Daughtercard |
| Limiting temperature               | -55 +125 °C   |



### Technical characteristics

| Insertion force                  | ≤25 N                               |
|----------------------------------|-------------------------------------|
| Withdrawal force                 | ≥8 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          | ≤0.1 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  |
|--------------------------------|--|
| Net weight                     | 0.001 kg                                 |
| Country of origin              | China                                    |
| European customs tariff number | 85366990                                 |
| GTIN                           | 5713140205765                            |
| eCl@ss                         | 27460201 PCB connector (board connector) |



#### **Data Transmission Protocols**

| har-flex HD-Card Edge Family Product Data Rate: 25Gbit/s |                         |                                   |                                   |                                  |
|--|-------------------------|-----------------------------------|-----------------------------------|----------------------------------|
| Protocol   | Serial Data Rate / Pair | Single Interface<br>Short Channel | Double Interface<br>Short Channel | Double Interface<br>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://www.harting.com/sites/default/files/2022-09/2022-01\_eBook%20\_Reference%20Channels\_en\_V1.pdf

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