Product data sheet
15 04 140 2401 000
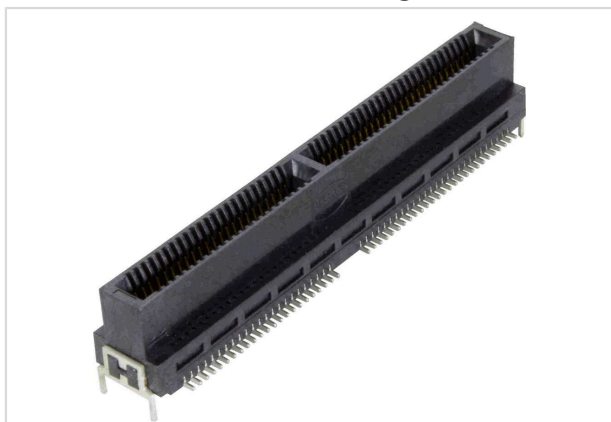har-flex HD-Card Edge 140 THR PL1 200pcs

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har-flex HD-Card Edge 140 THR PL1 200pcs

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

Part number	15 04 140 2401 000
Specification	har-flex HD-Card Edge 140 THR PL1 200pcs
HARTING eCatalogue	https://b2b.harting.com/15041402401000

Identification

Category	Connectors
Series	har-flex®
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	140
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

Page 1 / 3 | Creation date 2023-04-07 | Please note that the data specified here were taken as extracts from the online catalogue. Please refer to the user documentation for the complete and up-to-date information and data. Please also note that the user is responsible for validating functionality, conformity with applicable laws and directives, as well as for the electrical safety in the particular application.
HARTING Electronics GmbH | Marienwerderstraße 3 | 32339 Espelkamp | Germany
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Technical characteristics

Insertion force	≤100 N
Withdrawal force	≥28 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
	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	5713140205819
eCl@ss	27460201 PCB connector (board connector)

Page 2 / 3 | Creation date 2023-04-07 | Please note that the data specified here were taken as extracts from the online catalogue. Please refer to the user documentation for the complete and up-to-date information and data. Please also note that the user is responsible for validating functionality, conformity with applicable laws and directives, as well as for the electrical safety in the particular application.
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Data Transmission Protocols

har-flex HD-Card Edge Family Product Data Rate: 25Gbit/s				
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://www.harting.com/sites/default/files/2022-09/2022-01_eBook%20_Reference%20Channels_en_V1.pdf

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