

# har-flex HD-Card Edge 60p PL1 200pcs



Part number	15 03 060 2001 000
Specification	har-flex HD-Card Edge 60p PL1 200pcs
HARTING eCatalogue	https://b2b.harting.com/15030602001000

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

### Version

Termination method	Reflow soldering termination (SMT)	
Connection type	Motherboard to daughtercard Mezzanine	
Number of contacts	60	
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	
Insertion force	≤40 N	

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### Technical characteristics

Withdrawal force	≥12 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 Sn over Ni Termination side	
Material flammability class acc. to UL 94	V-0	
RoHS	compliant	
ELV status	compliant	
China RoHS	е	
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	5713140205499	
eCl@ss	27460201 PCB connector (board connector)	

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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