Amphenol SOCAPEX

HDAS Series

High performance & versatile
Board to Board 1,905mm / .075” pitch connector



High-density 1.905 mm staggered grid

Description

Amphenol Socapex HDAS is a versatile monolitic connector from 11 to 253 contacts. Designed to reach MIL-DTL-55302 performances, HDAS is the right connector when reliability must be considered. Up to 20A with an hybrid version to mix signal, power or RF, HDAS is available with a wide range of fittings, contacts & options. Already used in every critical application.

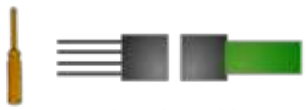
Benefits

- Dedicated to harsh environment
- Electrical security 1,2mm
- 1,27µ Au on socket, 1µ Au on pins
- 16mm distance between boards (YD/YD)

Features

- 12 arrangements, from 11 to 253 contacts
- Hybrid version to mix signal, power & coax
- PC Tail, press fit, solder cup & surface mount contacts
- Meet & Exceed MIL-DTL-55302

Configurations



Board to cable
(Solder cup)



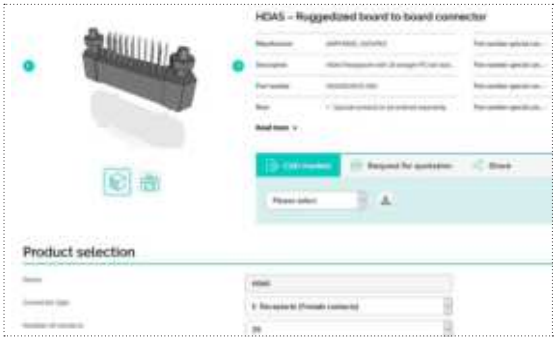
Mezzanine



Mother board to
Daugther board

Online configurator & 3D model download

You can define references according your needs and download directly 3D models in several formats on HDAS product page in our website www.amphenol-socapex.com or scan QR code :



Markets

Commercial Aerospace | Military Aerospace | Ground Vehicle | C4ISR | Missiles

HDAS series

Technical Specifications

Mechanical characteristics	HDAS	MIL-DTL-55302 sections
Backoff[1] (mm)	1.2 [.0472] $_{MAX}$	N/A
Mating force per contact (N)	0.6 < F < 0.8	§ 4.5.3
Unmating force per contact (N)	0.3 < F < 0.5	§ 4.5.3
Durability cycles	500	§ 4.5.9
Sinusoidal vibrations (200 to 2000 Hz) micro discontinuity 2ns	15 g	§ 4.5.10
Random vibrations (600 to 700Hz) micro discontinuity 2ns	1.2 g² / Hz	§ 4.5.10
Shocks 6ms ½ sinus 2ns	100 g	§ 4.5.10
Environmental characteristics		
Thermal shocks (°C)	-65 / +150	§ 4.5.13
Salt Spray (hours)	144	§ 4.5.11
Humidity Days Temperature (°C) Humidity rate (%)	 10 25/65 90-95	§ 4.5.15
Electrical characteristics		
Current rating per contacts (A)	4.5	§ 4.5.5
Insulation resistance (at 500Vdc) (GΩ)	5 $_{MIN}$	§ 4.5.8
Contact resistance (mΩ)	10 $_{MAX}$	§ 4.5.12
Dielectric Withstanding Voltage (Vrms)	750 $_{MIN}$	§ 4.5.7.1

[1]: When both connectors are fully mated, the backoff is the maximum distance the connectors can be unmated while functioning properly

How to order

1.	2.	3.	4.	5.	6.	7.	8.
Series	Connector type	Number of contacts	Contact termination	Hybrids	Deviation	Fitting / locking / Keying	Plating
HDAS	E	41	YD	6A	-00	0	LF

1. Series

HDAS	HDAS

2. Connector type

E	Receptacle (Female contacts)
F	Plug (Male contacts)

3. Number of contacts

3 Rows	011 020 029 041 050 077 119 152
4 Rows	102 202
5 Rows	253

4. Contact termination

YCS YC	Right angle PC tail short (plug only) Right angle PC tail standard (plug only)
YDS YD	Straight PC tail short Straight PC tail standard
YP	Press fit / compliant (receptacle only)
Z	Solder cup, for test application only (plug only)

5. Hybrids

6A	With 6 special cavities (applicable only with 41 signal contacts)
Blank	If no special cavities

[1] Connectors are always delivered with non assembled fittings

✓: RoHS compliant

6. Deviation

-00	Standard, by default
-50	Marking withstanding to VIGON
-01	Dip tinning (SnPb or SnAg) (plug only)
-02	PC tail organizer (YC* plug only)
-10	Stainless steel fitting (mandatory for latch)
-60	-10 & -50 deviation combined
-20	Stainless steel fitting & rear potting

** Not available for all configuration, please consult us.*

7. Fitting / Locking / Keying [1]

Female fitting receptacle	0	Standard
	4	Intermediate
	D	¼ turn locking, locking on male fitting side Straight according to contact termination, for PCB
	H	Locking by screw, locking on female fitting side Straight fitting for PCB or flexible circuit
	I	Locking by screw, locking on female fitting side
	F	Locking by screw, locking on female fitting side Straight according to contact termination, for PCB
	L	Latch
Male fitting plug	0	Standard
	2	No keying on male guide (plug only)
	E	¼ turn locking, locking on male fitting side Straight fitting for cable or flexible circuit
	G	Locking by screw, locking on female fitting side Straight or right angle fitting according to contact termination, for PCB
	J	Locking by screw, locking on female fitting side Straight or right angle fitting according to contact termination, for chassis, motherboard, jumper or cable
	L	Latch

8. Plating

Blank	Tin lead on receptacle Gold on plug -000 ✓ SnPb dip tinning on plug
LF	Bright pure Sn on receptacle ✓ SnAg dip tinning on plug ✓
LFM	Matte pure Sn on receptacle ✓

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