

Amphenol Commercial Products®



Now You're Connected!

Amphenol Commercial Products®

AMPHENOL COMMERCIAL PRODUCTS



Amphenol is a global provider of interconnect solutions to the designers and manufacturers of electronic equipment worldwide. We sell our products to diverse electronic markets, including military-aerospace, industrial, automotive, information technology, data center, mobile phones, wireless infrastructure, broadband, medical, and pro audio. With design creativity and cost effectiveness, Amphenol leads the way in interconnect development. Whether industry standard or specific designs are required, Amphenol provides customers with products capable of performing at the leading edge of today's technology. Our expertise and excellent service is acknowledged globally, with operations in more than 60 locations worldwide and growing.

Amphenol Commercial Products designs and manufactures at ISO 9001 certified facilities in China, Taiwan and North America. Together these Amphenol facilities provide a broad array of interconnect product to the commercial market, including low frequency Telecom and Back Plane connectors, I/O connectors, Storage products, Mobility connectors and connectors for automotive applications.

We also provide one of the broadest range of Modular Jack connectors available in the industry, both high performance, standard performance and with integrated magnetics. Ruggedized Harsh Environment connectors provide standard interfaces (D-Sub, USB, RJ, HDMI), but with IP67 sealing, and ruggedized die cast bodies for survival in the harshest environments. Filtered connectors are available in standard D-Sub, Ribbon and BNC interfaces to protect sensitive equipment in electrically noisy environments.



Power connectors are available in a variety of industry standard interfaces as well as custom and semi-custom designs, perfect for data center applications and effective power management in the newest power architectures being developed.

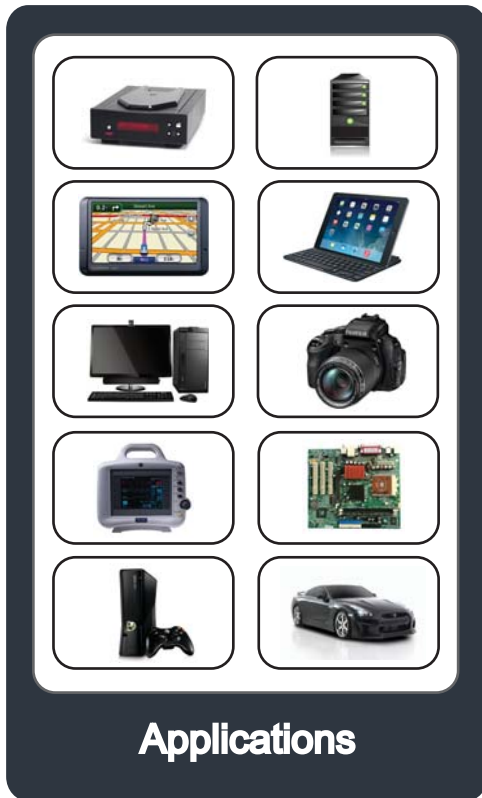
Our expertise in understanding and supporting our customers' various interconnect design needs has earned Amphenol a reputation of excellence and quality among the world's technology leaders. At Amphenol Commercial Products, we serve the diverse interconnect needs of the following markets:

Networking, Telecom, Servers & Computers, Storage & HDD, Data Center, Consumer Electronics, Entertainment, Industrial, Automotive, Medical, Military and other developing markets.

Amphenol Commercial Products®

Now You're Connected!

We offer solutions for your business needs



APPLICATION OVERVIEW

- NETWORKING
- TELECOM
- SERVER & COMPUTER
- STORAGE & HDD/SSD
- DATA CENTER
- CONSUMER ELECTRONICS
- INDUSTRIAL ELECTRONICS
- MEDICAL ELECTRONICS
- ENTERTAINMENT ELECTRONICS
- AUTOMOBILES
- OTHERS

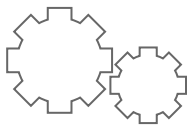
**AMPHENOL PROVIDES A
TOTAL END TO END SOLUTION**

SOLUTIONS

The new mobile Internet revolution is creating unimaginable interconnect challenges for operators and equipment makers of the underlying data and telecommunications networks. Amphenol is helping to drive the solutions to these challenges with our industry-leading interconnect products for high-speed/high-bandwidth needs as well as high reliability, high performance power interconnects. Our engineers are developing new solutions every day to further enable this data revolution.

CUSTOM SOLUTIONS

We understand and value that our customers are unique and have different needs and demands. We serve the needs of our customers by providing them with the opportunity and capability to customize the product. Working closely with our customers to help them specify their requirements, our engineering team manufactures a product designed to meet their exact needs.



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PRODUCT OVERVIEW

Amphenol offers a full range of D-Sub connectors from stamped and formed pin to screw machined pin with various termination and mounting options. IP67 waterproof is available. Amphenol's D-Sub TW Hybrid series permits a mix of contacts including signal, high voltage power, and coaxial in the same housing with 18 different contact arrangements compatible with reflow process. It can be used in telecom, commercial, industrial and any industry standard applications.

PRODUCT DETAILS

Series	Current Rating	Shell Size	Termination	Housing	Current Base Metal	Current Plating Metal
Stamped & Formed D-Sub	3A	E, A, B, C, D	Through-hole, SMT Solder Cup, Crimping, Flat Ribbon Cable, Rear Release, Press Fit	PBT Nylon 9T	Brass	Mating Area - Gold Termination End - Tin
Screw Machined D-Sub	7.5A	E, A, B, C, D	Through-hole, SMT, Solder Cup, IDC Screw Termination Wire Wrap	PBT	Brass Phosphor Bronze	Full Gold
Screw Machined Hybrid D-Sub	Signal - 7.5A Power - 40A Coaxial - 0.5A	E, A, B, C, D	Through-hole, Solder Cup, Crimping & Press Fit (only for Power)	Nylon 9T	Brass Phosphor Bronze	Mating Area - Gold Termination End - Tin
Secure Digital (SD)	5A	E, A, B, C, D	Straight for PCB, Solder Cup	Glass Filled Thermoplastic	Brass Phosphor Bronze	Mating Area - Gold Flash Termination End - Tin
Accessories	Locking Hardware: Female Jackscrew, Spring Latch, Sliding Lock Kit Hood: Metal, Plastic, Plastic with Metal Plate, Water-proof & Dust Metal Cover					

APPLICATIONS

- Telecommunications
- Commercial
- Medical Diagnostics
- Industry Standards
- Audio/Lighting Controls
- Ruggedized PCs
- Set-Top Boxes
- Server/Desktop PCs
- Field Repairs
- Marine

PORTFOLIO

- Stamped & Formed D-Sub
- Screw Machined D-Sub
- Screw Machined Hybrid D-Sub
- Accessories

**We offer a wide selection
of D-SUB connectors**

6000+ STANDARD PARTS AVAILABLE!

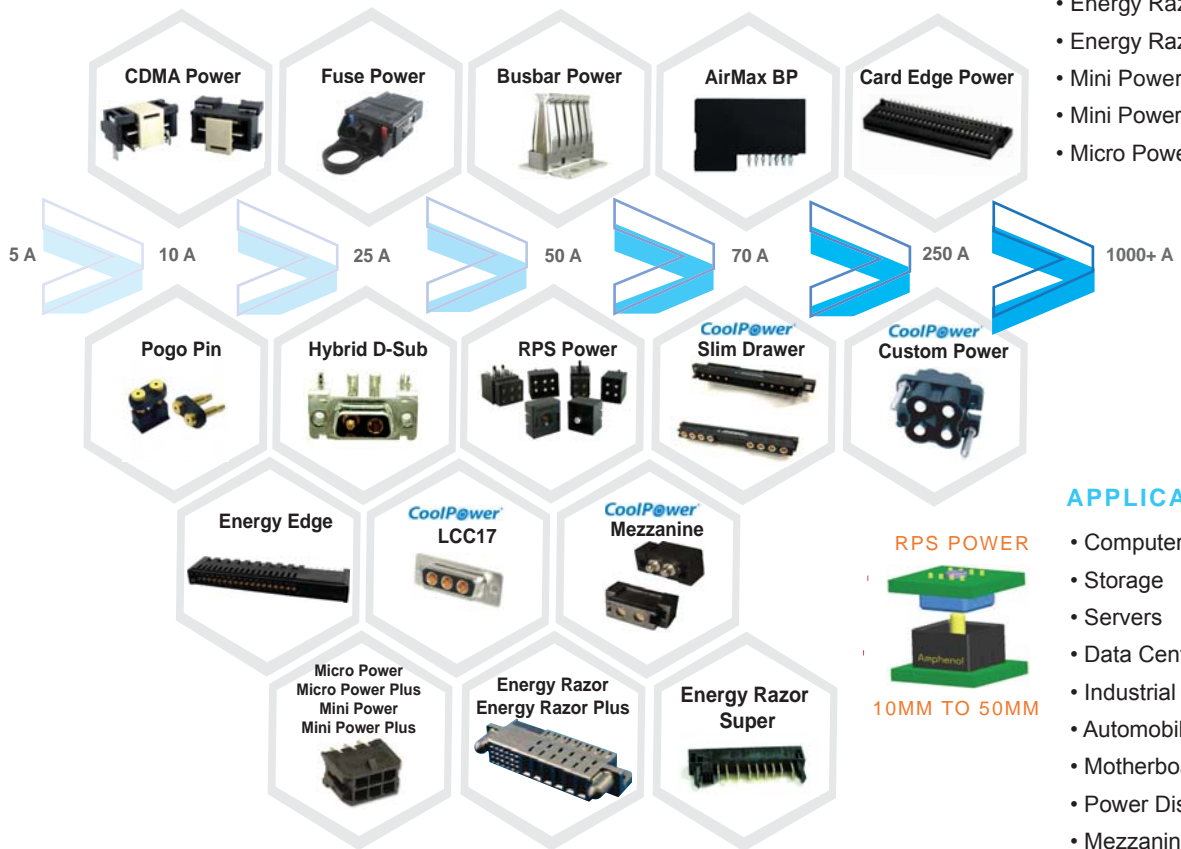
POWER

Connectors

PRODUCT OVERVIEW

Amphenol provides a wide range of Power connectors with current handling capability from several Amperes up to and exceeding 1000A for use in telecommunications, automobiles, mobile devices, industrial markets, and anywhere reliable efficient power is required.

Amphenol's Radsok® technology is a highly efficient interface with multiple points of contact providing exceptionally low contact resistance for high current with low temperature rise, and low mating forces capable of thousands of mating cycles. CoolBand technology also provides multiple contact points and low mating forces in an economical package.



PORTFOLIO

- RPS BTB Power
- Busbar Power
- Cardedge Power
- Board to Board Power
- Fuse Power
- Mobile Power
- Mezzanine Power
- Blindmate Slim Drawer
- Custom Power
- Energy Edge
- Energy Razor
- Energy Razor Plus
- Energy Razor Super
- Mini Power/Micro Power
- Mini Power Plus
- Micro Power Plus

APPLICATIONS

- Computers
- Storage
- Servers
- Data Centers
- Industrial
- Automobiles
- Motherboards
- Power Distribution
- Mezzanine Cards

We offer mating height flexibility to suit your needs



Amphenol Commercial Products®

Now You're Connected!

RUGGED/FILTERED

Connectors



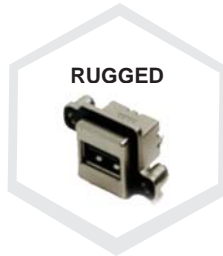
PRODUCT OVERVIEW

Amphenol offers both Rugged connectors for harsh environments and Electrically Filtered connectors for EMI suppression. Our Rugged connectors are close to the standard package size, provide a standard mating interface, and they meet or exceed the IP67 requirements. Amphenol's Filter connectors are interchangeable with all standard non filter connectors. Our unique construction offers our customers 100% stress isolated design, a choice of filter capacitance and mounting options.

PRODUCT DETAILS

PORTFOLIO

- D-Sub: MDB/MDBR
- Modular Jacks: MRJ/MRJR
- USB: MUSB/MUSBR
- Locking USB: LUSB
- HDMI: MHDR
- Sealing Enclosure: ID
- Filtered D-Sub: FCC17/FCE17
- Filtered 57 Series: FCC57/FCE57
- BNC Capacitively De-Coupled: 456/456E



- Meets/Exceeds IP67
- Robust Construction - Zinc Die Cast Shell
- Rugged Connector Offering:
D-Sub, Modular Jack, USB, HDMI, Bulkhead Adapters
- Series Includes:
MDB, MDBR, MRJ, MRJR, MUSB, MUSBR, LUSB, MHDR, ID



- Filter Element - Chip Capacitors
- Includes: D-Subs, Micro Ribbon, BNC
- Better EMI Control
- PCB Space Savings
- Cost, Space, & Weight Savings
- Series Include:
FCC17, FCE17, FCC57, FCE57, 456, 456E Series

APPLICATIONS



MODULAR JACKS

Connectors

PRODUCT OVERVIEW

Amphenol's broad range of I/O Registered Jacks (RJ) offer solutions to meet the increasing demand for faster speeds and greater bandwidth required by telecom & networking markets for VoIP, Ethernet, video streaming, and other bandwidth intensive applications.

Amphenol's CAT5e, CAT6, and CAT6a Modular Jacks are designed for applications that require higher standards for data transmission. Our CAT5e products can reliably work at 1000 Mbps (Gigabit Ethernet) speeds while controlling near end cross talk. Our CAT6 and CAT6a products are ideal for supporting 10 Gigabit Ethernet and are able to operate up to 250 Mhz (for CAT6) and 500 Mhz (for CAT6a). With our existing and upcoming lines of High Performance Modular Jacks, Amphenol has the solution for your RJ requirements.

PRODUCT DETAILS



STANDARD
Variety of styles & configurations



CUSTOMIZED
For specific requirements



MULTI PORT
Stacked & in-line



HIGH PERFORMANCE
For CAT5e, CAT6, & CAT6a



INTEGRATED MAGNETICS
For 10/100, 1G, & 10G

CONFIGURATIONS/OPTIONS

- Single/Multi port stacked or in-line
- Standard or inverted mating face
- Variety of LED colors
- Ferrite filtering for signal noise suppression
- Right angle or vertical orientation
- Ultra-low to standard profile designs
- EMI shield options

APPLICATIONS



MICRO-RIBBON

Connectors

PRODUCT OVERVIEW

In addition to D-Sub connectors, Amphenol's various Micro-Ribbon series address traditional external I/O requirements. These include: 57 series Micro-Ribbon (Centronics) connectors, 157 series Micro-Ribbon IDC cable mount connectors, 257 series (SCSI-2) and tailor made 957 series, and 858 series Mini D Ribbon connectors, suitable for telecommunication and any industry.



PRODUCT DETAILS

57 SERIES



Termination - Solder Cup, Straight PTH
 No. of Contacts - 14/24/36/50/64
 Wire Gauge Size - Solid Wire: 22 to 30 AWG
 - Stranded Wire: 24 to 30 AWG
 Pitch: 2.16mm

57 LE SERIES



Termination - R/A PTH type
 No. of Contacts - 36/50/64
 Tail Length - 2.75mm, 3.4mm
 Pitch: 2.16mm

257 SERIES



Termination - Plug: IDC & Solder Cup
 - Receptacle: R/A PTH
 No. of Contacts - 50/68/100
 Pitch: 1.27mm

157 MICRO-PIERCE SERIES®



Termination - IDC Type
 No. of Contacts - 14/24/36/50/64
 Wire Gauge Size - Solid Wire: 22/24/26 AWG
 - Stranded Wire: 26/28 AWG
 Pitch: 2.16mm

957 MICRO-PIERCE SERIES



Termination - Plug: Cable Side
 - Receptacle: Chip Side
 No. of Contacts - 100
 Pitch: 2.16mm

MINI D RIBBON



Termination - Female: PTH
 - Male: ITC & Straight PCB Through-hole
 No. of Contacts - Female: 26/36/50/68/80
 - Male: 26/36/50/68
 Pitch: 1.27mm

APPLICATIONS

- Industrial Instruments/Controls
- Medical
- Communication Systems
- Security
- Storage Systems
- Computer Peripherals
- Transportation
- POS Terminals
- Image Systems



MOBILITY

Connectors



PRODUCT OVERVIEW

Amphenol provides a wide range of memory card holder connectors suitable for any mobile devices with memory cards assembled. It includes various card holder connectors such as the SIM/Micro SIM, Micro SD, SD, Combo SD, HDMI, and USB/Micro USB. Amphenol's Micro SIM card connector, is a much smaller SIM card connector designed to save space in hand held devices such as mobile phones, smart phones, tablets, GPS devices, etc. Available in 6 or 8 contacts, with or without detection switch, and three card rejection types of push/push, push/pull or hinge.

PORTFOLIO

- SIM Card Connector
- Micro SIM Card Connector
- Nano SIM Card Connector
- SD/Micro SD Card Connector
- SD/SD Combo Connector
- Battery Connector
- HDMI/Micro HDMI Connector
- USB/Micro USB Series Connector
- USB 3.1, Type C Connector

PRODUCT DETAILS

- Available in push/push, push/pull, with, w/o switch
- Ultra-low-profile height of 1.25 mm
- Durability: Up to 10,000 cycles
- Ideal for ultra-slim smart phone & tablet applications
- Housing: LCP
- Contact: Copper Alloy
- Shell: Stainless Steel



- Available in push/push, push/pull, hinge, with, w/o switch
- Ultra-low-profile height of 1.3 mm
- Durability: Up to 10,000 cycles
- Ideal for ultra-slim smart phone & tablet applications
- Housing: LCP
- Contact: Copper Alloy
- Shell: Stainless Steel



- Available in push/push, push/pull, hinge, with, w/o switch
- Combo Type: 2 in 1 (SD + MMC), 3 in 1 (SD+MMC+MMC4.0), 4 in 1 (SD + MMC + Mini SD + MMC4.0)
- Durability: Up to 10,000 cycles
- Ideal for notebook, portable audio/video players, mobile devices
- Contact: Copper Alloy
- Shell: Stainless Steel



- Available in single & double deck dip
- Current Rating: 0.5A
- Durability: Up to 10,000 cycles
- Ideal for data transfer & identification when cards are using GPRS, GSM, Set Top Box & GSM technology
- Housing: High Temperature Thermoplastic
- Contact: Copper Alloy
- Shell: Stainless Steel or Copper Alloy



- Various heights & pin counts
- Current Rating: up to 2A pin
- Durability: Up to 7,000 cycles
- Ideal for notebook, portable audio/video players, mobile devices
- Housing: LCP
- Contact: Copper Alloy

PRODUCT DETAILS

HDMI/MICRO HDMI



- Available in right angle, vertical, stand-off, SMT, DIM, mid-mount type
- Durability: Up to 10,000 cycles
- Ideal for notebook & smart phone applications
- Fully following HDMI spec.
- Housing: LCP
- Contact: Copper Alloy
- Shell: Copper Alloy

USB/ MICRO USB



- Available in USB 2.0/3.0 A&B type, micro USB 2.0/3.0 B & AB type
- Available in DIM, SMT, right angle, vertical, sink type, stand-off type, stack type
- Durability: Up to 10,000 cycles
- Ideal for ultra-slim phone & tablet & notebook applications
- USB 3.1, C Type Connector
- Housing: High Temperature Plastic
- Contact: Copper Alloy
- Shell: Stainless Steel

USB C TYPE



- Available in top mount, mid-mount, SMT & hybrid (DIP+SMT) type
- Speed: Up to 10 Gbps
- Durability: Up to 10,000 cycles
- Reversible plug orientation & cable direction
- Ideal for ultra-slim phone & tablet, notebook applications
- Housing: High Temperature Plastic
- Contact: Copper Alloy
- Shell: Stainless Steel

BOARD TO BOARD



- Optimized for Gen3 8 Gbps to Gen4 16 Gbps
- 0.8mm double-row contact pitch MEZZANINE Board to Board connectors
- Stack Height from 5 to 16mm
- 40 to 200 pin sizes in 20 pin increments
- Fully inter-matable with similar competitive connectors

APPLICATIONS

Tablet



Notebook



Audio Players



Video Players



Smart Phone



STORAGE

Connectors



PRODUCT OVERVIEW

Amphenol has a complete range of storage connector systems that enables HDD/SSD/ODD devices to host backplanes with all kinds of interface standards in workstation, server and storage applications.

PORTFOLIO

- SATA
- Micro SATA
- Slim SATA
- SAS
- Micro SAS
- Mini SAS
- Mini SAS HD
- SCA-2
- SCSI Express
- M.2
- ESATA
- PCMCIA
- DDR2,3,4
- PCIe Gen2
- PCIe Gen3
- Mini PCIe

PRODUCT DETAILS

INTERFACE	CONNECTORS IN DEVICE	CONNECTORS IN BACKPLANE	DATA RATE
SATA or MICRO SATA	SATA Plug for HDD of 2.5"/3.5" & SSD Micro SATA for 1.8" HDD & SSD	SATA Socket Micro SATA Socket SAS Socket SCSI Express Socket	1.5 Gbps 3.0 Gbps 6.0 Gbps
SLIM SATA	Slim SATA Plug for ODD	Slim SATA Socket	3.0 Gbps
SAS or MICRO SAS	SAS Plug for HDD of 2.5"/3.5" & SSD Micro SAS for 1.8" HDD & SSD	SAS Socket Micro SAS Socket SCSI Express Socket	3.0 Gbps 6.0 Gbps 12 Gbps
MINI SAS or MINI SAS HD	Mini SAS Plug Mini SAS HD Plug	Mini SAS Socket Mini SAS HD Socket	6.0 Gbps 12 Gbps
SCA 2	SCA 2 Plug for HDD	SCA 2 Socket	Up to 12 Gbps
SCSI EXPRESS	SCSI Express Plug for HDD&SSD	SCSI Express Socket	12 Gbps
M.2	Gold Finger instead for SDD	M.2 Connector	12 Gbps
ESATA	ESATA Plug	ESATA Socket	6.0 Gbps
PCMCIA	PC Card Type 1-3	PCMCIA Socket	0.133 Gbps
DDR 2 DDR 3 DDR 4	} 228 Position Memory Module	} 228 Position UDImm, RDImm, LRDmm	0.4-0.8 Gbps
			0.8-1.6 Gbps
			1.6-3.2 Gbps
PCIe Gen2 PCIe Gen3 Mini PCIe	} PCIe Card Mini PCIe Plug	PCIe Gen2 Socket	4 Gbps
		PCIe Gen3 Socket	8 Gbps
		Mini PCIe Socket	3 Gbps

APPLICATION OVERVIEW



Direct Attach Storage



SAS Fabrics



External Storage



HDD/SSD

20+ YEARS OF DESIGN-IN MANUFACTURING
EXPERIENCE WITH TOP MANUFACTURERS IN
THE STORAGE INDUSTRY

**We are leading contributors
with the SFF Committee**



AUTOMOTIVE ELECTRONICS









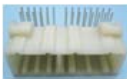











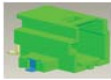

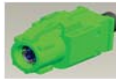


Connectors

PRODUCT OVERVIEW

Amphenol is a leading supplier of advanced interconnect systems for automotive safety devices and expanding on-board electronics in automobile applications which include entertainment, communication, navigation, and telematics modules.

Amphenol's HSD (High Speed Data) connector is used in Automotive Infotainment & Telematics System Solutions in harsh environments with any combination of various protocols of LVDS (Low Voltage Differential Signaling), GVIF (Gigabit Video Interface), USB, IEEE 1394 as well as Ethernet.

PRODUCT DETAILS

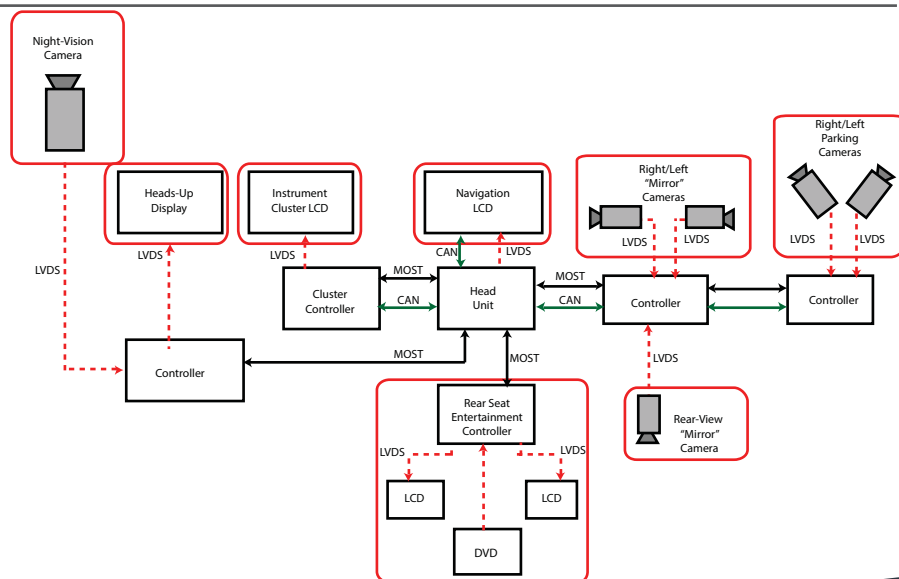
Sub-Series	Product Examples				
HSD Connector	 Vertical Plug	 R/A Plug	 R/A, Low Profile	 R/A 4 + 8 Pins	 Cable Jacks
Power Connector	 2x11 Pins	 2x8 Pins	 12+8 Pins	 2x14 Pins	 28+2 Pin Power Header
Pin Header & Socket	 1.27mm Header	 2x9 Pins, Header	 2.54 mm, Header	 2.54mm Socket	 1.27mm Socket
Terminal Block	 26 Ways	 16 Ways	 12 Ways	 2x18 Ways	 2 Ways
Tailor Made					

APPLICATIONS

- Cameras
- LCDs
- Cluster Displays
- Heads-Up Displays
- Parking Systems
- Instrument Clusters
- Entertainment Controllers

PORTFOLIO

- HSD Connector
- Power Connector
- Pin Header & Socket
- Terminal Block



NOTES

CONNECTORS

This brochure contains an overview of some of the most popular commercial products that Amphenol Commercial Products has to offer.

These include: Storage connectors, Automotive connectors, D-Sub connectors, Micro- & Mini D Ribbon connectors, Mobility connectors, Power connectors, Harsh/Rugged connectors, and Modular Jack connectors.

For additional information, please contact us for product specific catalogue.

Note: Specifications are subject to change without notice. Please contact your nearest Amphenol sales office for the latest specifications.

Amphenol Commercial Products®

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