



Consumers

Amphenol is ready with excellent interconnect solutions that are capable of operating precisely and efficiently to meet the new levels of connectivity and convenience over a wide range of consumer applications.

amphenol-cs.com



Amphenol Overview

Amphenol Communications Solutions (ACS), a division of Amphenol Corporation, is a world leader in interconnect solutions for Communications, Mobile Consumer Products, RF, Optics, Broadband and Commercial electronics markets.

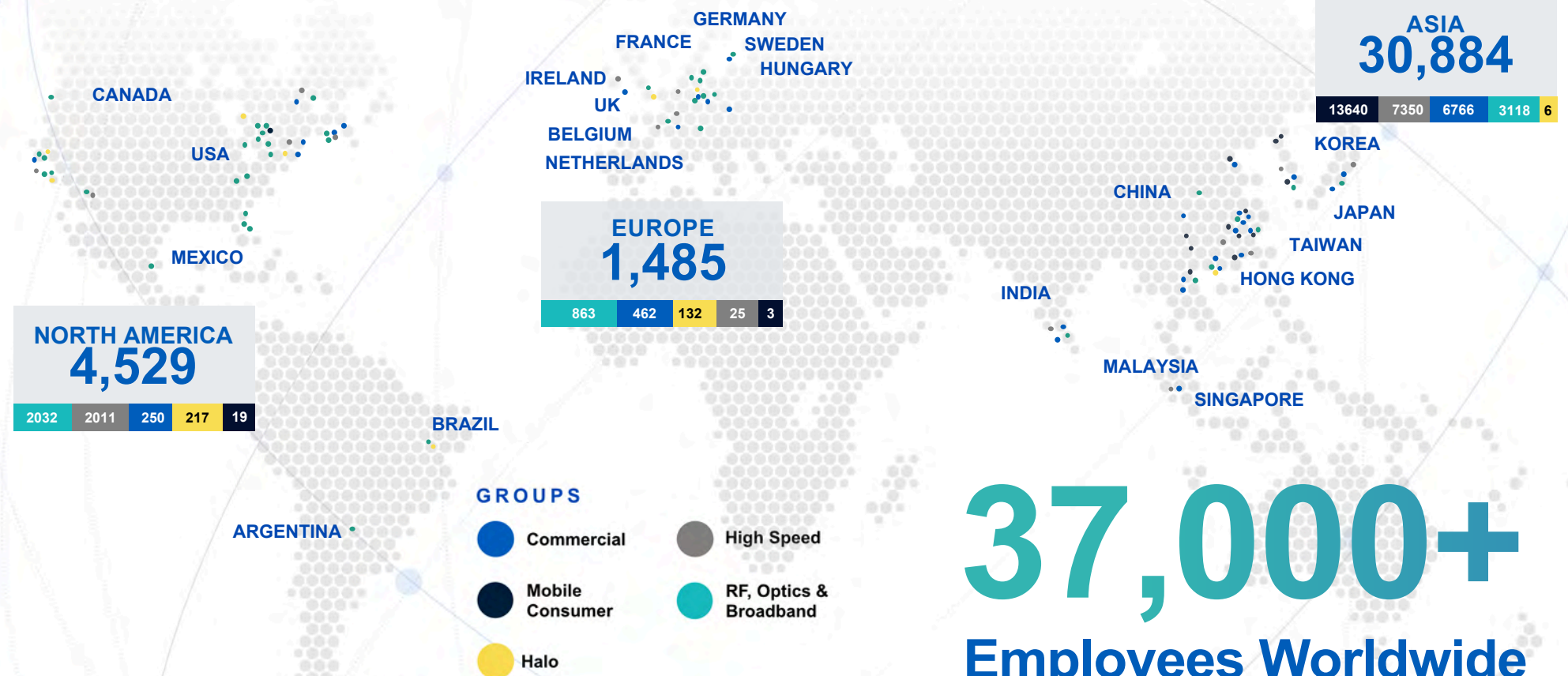
Amphenol Corporation is one of the world's largest designers and manufacturers of electrical, electronic and fiber optic connectors and interconnect systems, antennas, sensors and sensor-based products and coaxial and high-speed specialty cable.

ACS has an expansive global presence in research and development, manufacturing, and sales. We design and manufacture a wide range of innovative connectors as well as cable assemblies for diverse applications including server, storage, data center, mobile, RF, networking, industrial, business equipment and automotive.

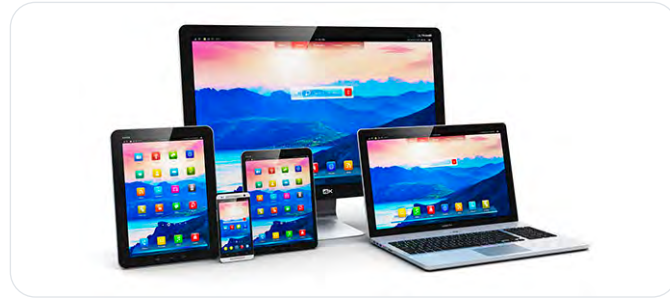
Strong Global Presence

We place heavy emphasis on R&D for both new product and technology development, focusing on the advancement of the next generation of high-speed interconnects and power distribution solutions as well as innovative manufacturing solutions.

- Our R&D centers worldwide have registered thousands of patents and licensing agreements, developing some of the world's first innovations in connectors such as Shield-less High-Speed Connectors, Ball-Grid-Array Attachments, economical Stamped High-Power Contacts and cost effective yet reliable plating processes.
- We relentlessly seek improvements of our products, increasing our solutions' overall cost effectiveness, precision and reliability. This ensures that we meet or even surpass the ever changing needs and expectations of market trends.



37,000+ Employees Worldwide



Desktop / Notebook Computers

Amphenol has a track record in supplying the right choice of connectors addressing various components of a desktop computer including Motherboards, power supply units, storage. Also provides a range of connectors suiting the battery management, trackpad, high def cameras, USB4 connectors and storage drives of powerful Notebooks.



Power Tools

Amphenol provides a choice of connectors to charge up battery-operated cordless power tools like drills, jackhammers, saws, and sanders.



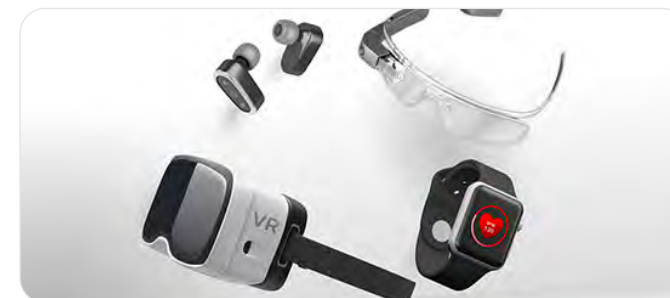
Personal Care Products

Amphenol has an array of compact, high performance Input Output, Board-to-Board and Wire-To-Board solutions that service the PCBs, power supply units, and motors of these devices so that they keep us satisfied with the highest quality, precision, and perfection.



Home Appliances

To meet next generation smart home requirements, Amphenol connectors are designed to support increasingly sophisticated home appliances requiring integrated features like wireless connectivity and sensing capabilities.



Wearables

Amphenol's focus on innovation enables us to provide our customers an array of miniature, high performance interconnect solutions for next generation wearable devices.



E-Bikes

E-bikes set standards for the next generation light-mobility, with safer, greener, and comfortable rides. Amphenol provides high power and reliable battery support that ensures uninterrupted performance for longer durations.

Consumer



PCIe® M.2 Gen 5 and Gen 4

- 67 contacts on 0.50mm pitch fully compliant with PCI-SIG PCIe® M.2 specification
- Dual Stacked, Shielded versions are available
- Right angle, vertical and various connector heights and keying options offered



DDR5 SO-DIMM Connectors

- 262 positions connector in high-density design of 0.50mm pitch
- 4.00mm, 8.00mm, 5.20mm and 9.20mm height
- Right angle and vertical orientation with SMT mechanical hold-downs



Compression, Board-to-Board Connectors and Interposer

- Provides a connection between either two PCB modules or one PCB and an electrical module
- Single-piece compression-type or two-piece board-to-board surface mount connectors



PSAS, SAS and SATA Connectors

- SAS connectors (29-pins) support hot plugging and blind mating of HDDs/SSDs. 2 signal lanes support up to 24Gb data rate (SAS 4.0).
- PSAS connectors (68pins) support SAS HDD and NVME SSDs with 2 SAS lanes supporting up to 24G data rate and 4 PCIe® lanes supporting up to 32G (PSAS 5.0) data rates.



USB Type-C Connectors

- Performs to USB4 and Thunderbolt4 high-speed specifications, and backward compatible with USB3.2 Gen1 and Gen2
- Waterproof versions featuring unique O-ring technology (LIM) perform up to IPX8
- Supports up to 240W (5A/48V) power supply



SD/Micro SD Express Series Connectors

- PCIe® Gen3*1/ Gen4*1 lane
- Backward compatible to UHS-I/UHS-II in one socket (3-in-1 solution)
- Push push/push pull structure



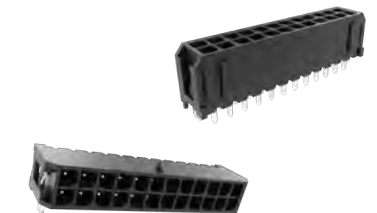
DisplayPort 2.1 Connectors

- DP2.1, UHBR20, 80Gbps/4 Lanes, 85ohm, for DP80 cable
- Backward compatible to DP1.4 footprint.
- Optional for flange and plastic post.



FFC/FPC Connectors

- From 0.21mm to 2.0mm pitch with various heights ranging from 0.5mm to 6.25mm.
- Easy to operate and high vibration-proof performance
- Automotive grade versions compliant with USCAR2 and LV214 are available
- FFC cable can be supported as a whole solution
- Autolock option available



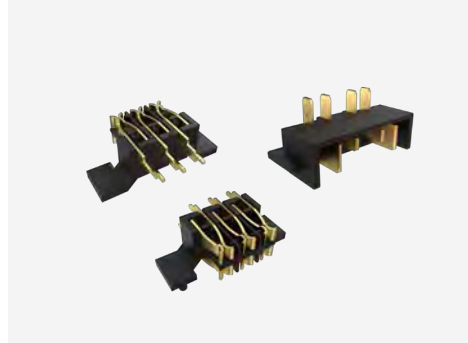
Power Connectors

- Wire to Board connectors in 3.0 mm and 4.2mm pitch with current ratings from 6.5A to 20A per pin
- Designed for IT and Datacom applications



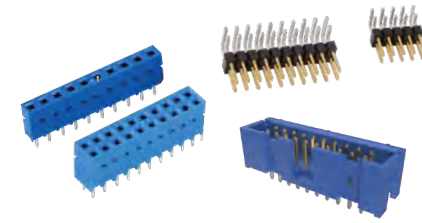
Minitex® Pwr Connector and Cable Assemblies

- Complete interconnect solutions for wire-to-wire and wire-to-board
- Available in pitch sizes of 3.00mm, 4.20mm and 5.70mm
- Current ratings from 5A to 28A



Battery Pack Connectors for Cordless Power Tools

- Robust battery pack charger connector for cordless power tools, lawnmowers, cordless vacuum cleaner, and personal care devices
- Ratings up to 45A per contact
- IP67 rated both mated and un-mated



Modular Systems 2.54mm/2.00mm

- Dubox®, Quickie®, BergStik®, PV® 2.54mm, Minitex® 2.00mm.
- Industry proven connector system.
- Board to Board, Wire/Cable to Board.

Consumer



Lynx™

HIGH SPEED AND DOUBLE DENSITY LOW-PROFILE BOARD-TO-BOARD CONNECTOR
Amphenol's Lynx™ is a 4-row product offering doubling the density in a 2-row footprint that is suitable for a wide variety of applications in datacom, enterprise server, industrial, medical and more.



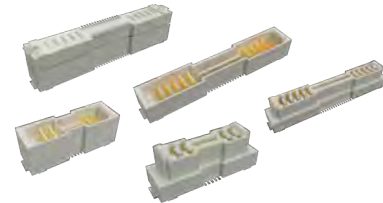
Lynx™ QD

THE QUAD DIFFERENTIAL SOLUTION
Optimized for differential pair signaling, Lynx™ QD sets a new standard for density and flexibility that offers an innovative, high performance interconnect with PCIe® Gen 5 support. Lynx™ QD supports data rates of 56 Gb/s PAM4.



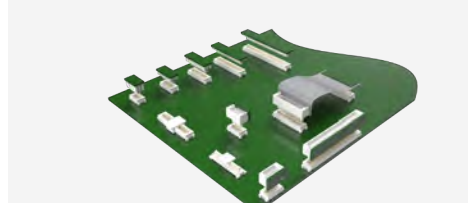
cStack™

CUSTOMIZABLE SOLDERLESS INTERPOSER-BASED ONE-PIECE STACKER
The Amphenol cStack™ high speed solderless interconnect solution provides limitless flexibility for board-to-board mezzanine applications and board-to-board stackable and coplanar applications when terminated to a flex circuit.



ComboStak® 0.80mm / 2.00mm

- Hybrid and medium power solution
- 0.8A signal, 20A power
- Signal speed up to 12Gb/s.



Conan® 1.00mm

- Secure, reliable connector
- Audible "click" to ensure perfect mating
- Speed up to 8 Gb/s.



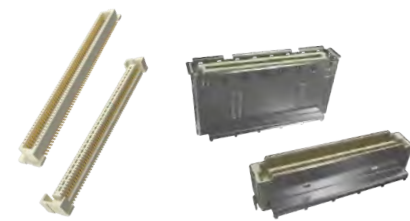
ComboLock® 1.00mm/3.00mm

- Compact, hybrid wire-to-board connector.
- Active Positive Latching
- 1.5A signal, 10A power



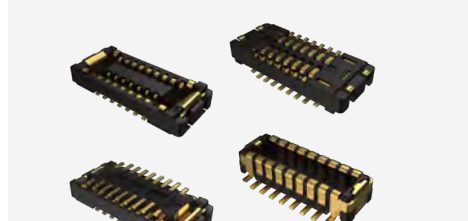
TR Multicoax Connector

THE HIGHEST DENSITY, HIGH SPEED COAX CONNECTOR
TR Multicoax connectors deliver superior signal integrity from multiple high speed analog or digital channels. With a choice of 20GHz, 40GHz, 70GHz, and 90 GHz configurations, users can upgrade their connectors according to bandwidth requirements of their application



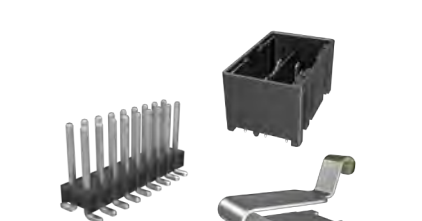
BergStak® 0.80mm

- Ideal for use in high density applications
- Wide range of positions and stack heights
- Speed up to 16 Gb/s.



Micro Board-to-Board

- Low profile and fine pitch for high density applications
- High current rating (Up to 5A)
- Chamfer connector design prevents mismatching



Customized Solutions for Automotive and Consumer Applications

- Supports custom connector requirements with value-added solutions, minimal turnaround time, and competitive pricing

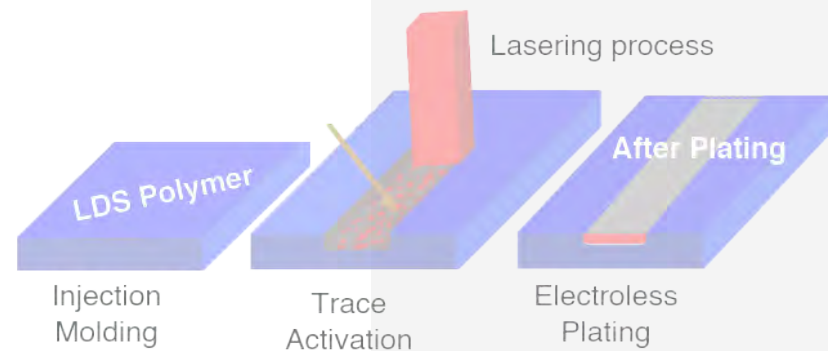


Standalone LDS Antenna

- LDS technology can be used for all types of antennas in consumer devices
- Antenna trace efficiently used on 3D surfaces to optimize the antenna performance
- 4G/LTE/5G
- Wi-Fi / BT / BLE / UWB
- GNSS / LoRa

LDS with cable assembly

- In laptops/tablets or other devices where the antenna is located away from the radio – with LDS the cable can be soldered on antenna trace pad and connected to radio



LDS Process in a snap-shot

- Antenna trace on 3D surface
- LEP, non LDS polymer resin alternative
- Excellent trace tolerances
- Less parts, fewer assembly steps and reduced weight
- High volume in-house capacity



LDS on white resin

- Complex trace design on earbud
- White resin
- Via's
- Wi-Fi / BT / BLE



LDS on small form factor

- When space matters
- Trace design with great antenna performance
- Wi-Fi / BT / BLE



Transparent LDS

- LDS covered by transparent resin
- 2- shot molding
- High precision
- Connected on inside



LDS Antennas

LDS inside the housing

- Efficient use of space
- Multiple-antennas in one process
- Easy connection via pogo-pins or c- clips
- Cost savings



LDS Process on Outer Surface



Paint Over LDS Trace Pattern



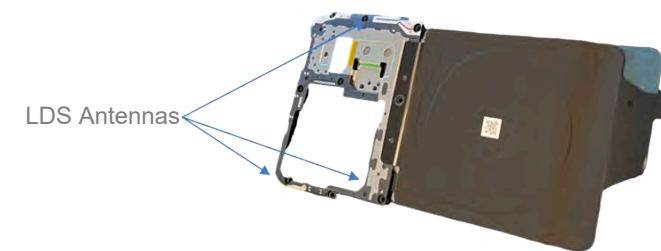
Polish Paint Surface



Final Paint Layers + UV Coat

LDS outside the housing

- Further improve the antenna performance by have the antenna trace on outside of the housing
- Hide the coating process



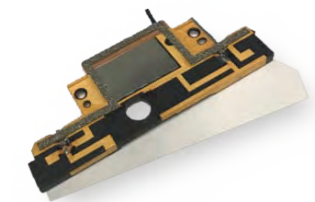
Insert mold LDS

- Maximize the integration
- Multiple LDS antennas + insert mold
- Combine with other NFC/WPC
- One-part assembly



LDS with hinge solution

- Excellent solution to combine antenna + hinge



LDS with integrated P -Sensor

- LDS antenna integrated with a P-sensor
- One-part assembly



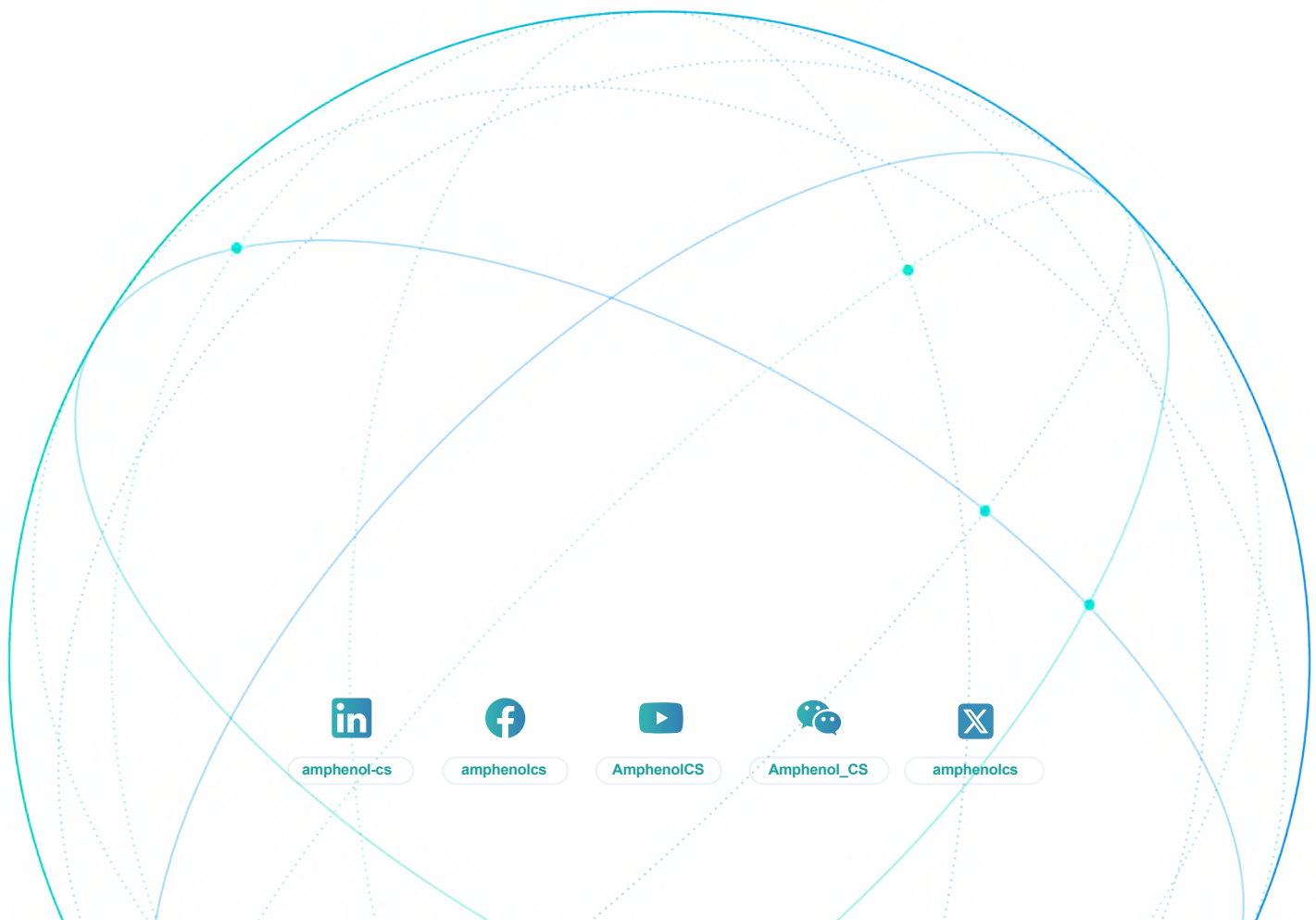
LDS with SMT components

- Solder SMT components directly on LDS trace
- Matching of antenna directly on LDS part
- Cable soldering

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