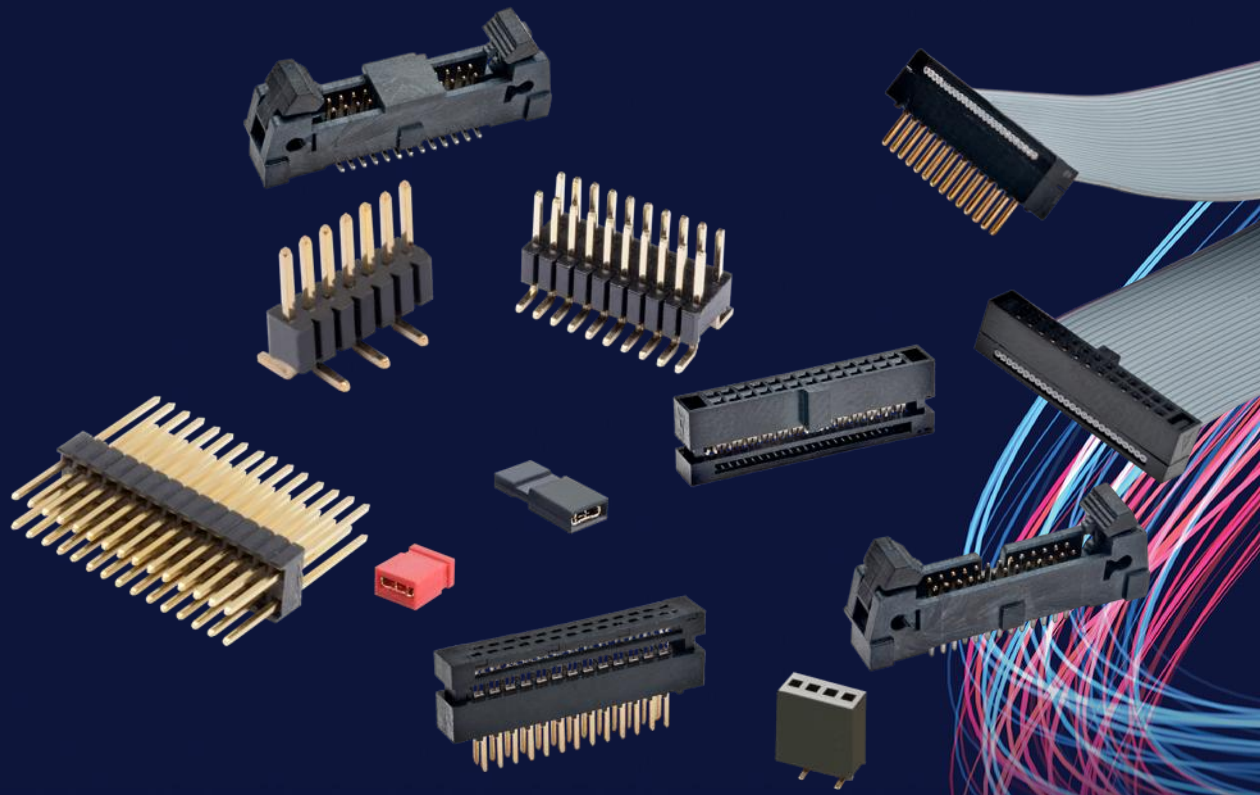
BBi RANGE

HARWiN

ARCHER



WWW.HARWIN.COM

ARCHER

BBi RANGE

IMPROVED SPACE SAVING

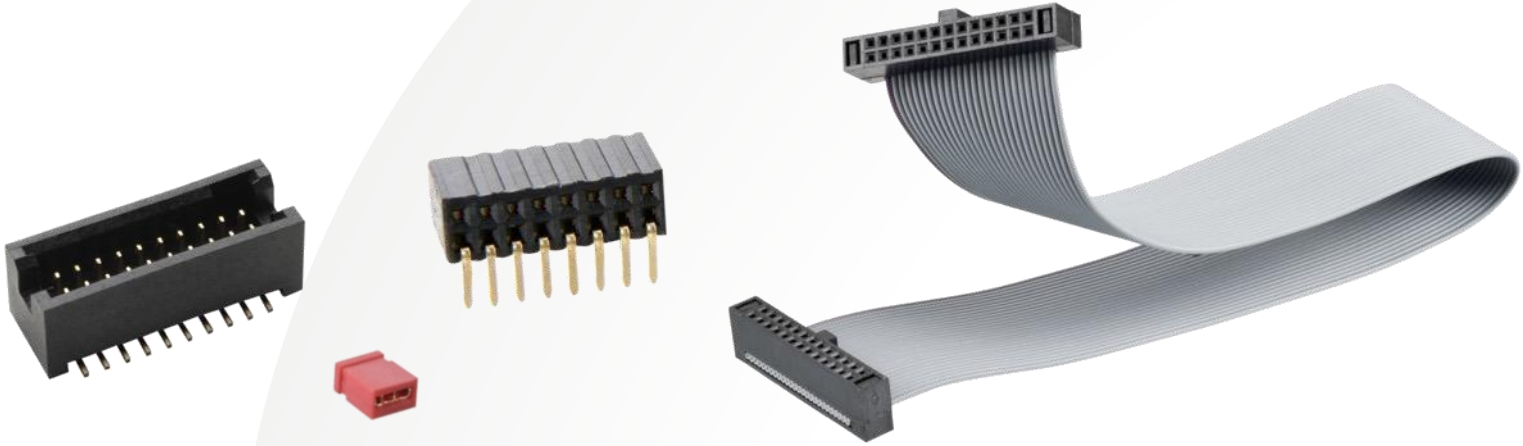
Today's electronics and PCB designers are faced with many connector challenges, including shrinking application space requirements, increased PCB density and/or height restrictions, more functionality – whilst maintaining a quality product designed to a budget.

The popular choice is decreasing pin and pitch size using the same design style – moving from 2.00mm to 1.27mm pitch gives a 36-37% footprint space saving, and from 2.54mm to 1.27mm pitch gives a full 48-50% saving.

ARCHER

BBi RANGE

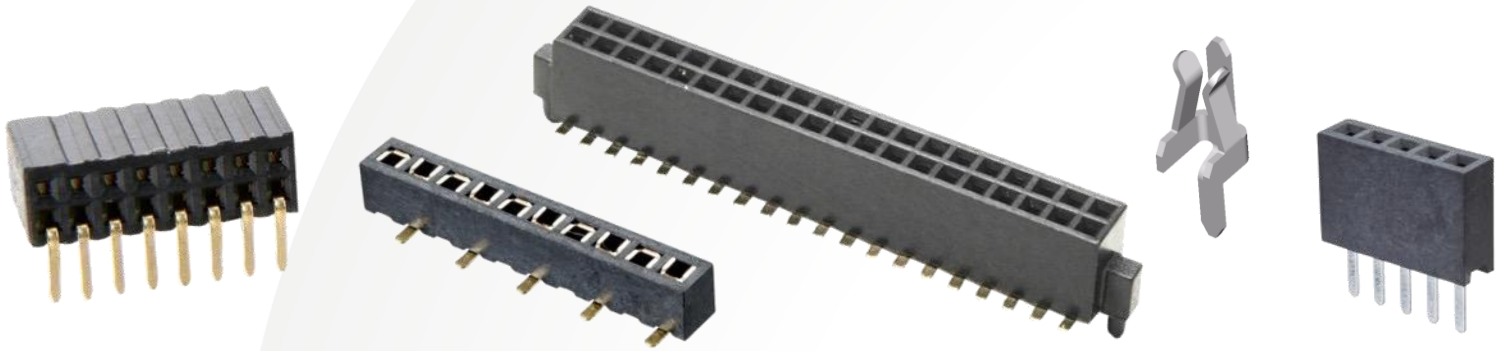
WIDE RANGE FOR DESIGN FLEXIBILITY



The 1.27mm pitch connectors from Harwin are collected together under the Archer brand name. The brand covers a wide range of styles and sizes, orientations and PCB fixing styles, with shrouded and polarized options. The design flexibility covers applications requiring cable-to-board or board-to-board configurations.

ARCHER

ARCHER M50 - PCB MOUNT SOCKETS: SIL/DIL, SMT/THROUGHBOARD



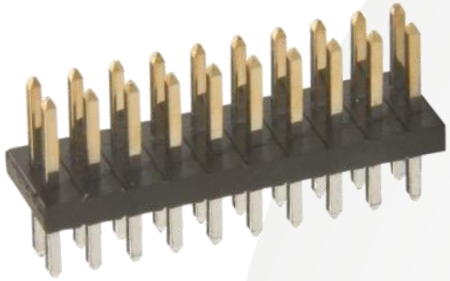
The M50 range of the Archer connectors are all based on a 1.27mm pitch grid (1.27mm pitch both along the connector, and between the two rows), and male pins are 0.4mm square. Single and Double row are available.

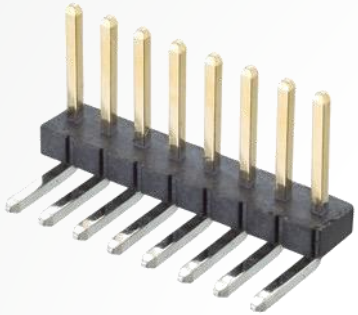
The Female Receptacle Straight sockets come in a variety of heights in Surface Mount (including a dual/bottom entry option), and have PC Tail versions of both Straight and Right-Angle orientations. All use twin beam contacts for higher durability and better retention.

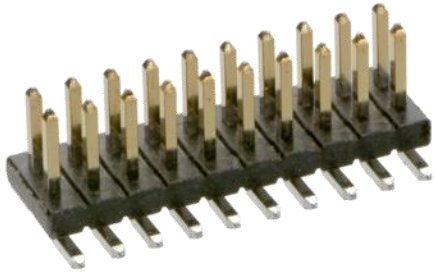
ARCHER

BBi RANGE

ARCHER M50 - PCB MOUNT SOCKETS: SIL/DIL, SMT/THROUGHBOARD







The Male Plug connectors – or Pin Headers – are supplied in the following variations:

Single Row options:

- Straight Throughboard – M50-353 series
- Straight Surface Mount (no pegs) – M50-363 series
- Right-Angle Throughboard – M50-393 series

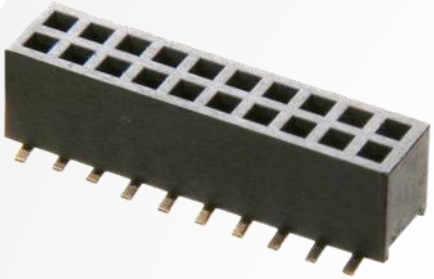
Double Row options:

- Straight Throughboard – M50-350 series
- Straight Surface Mount – M50-360 (no pegs) or M50-361 (with pegs)
- Right-Angle Throughboard – M50-390 series

BBi RANGE

ARCHER

ARCHER M50 - TAPE AND REELED, READY FOR AUTO-PLACEMENT



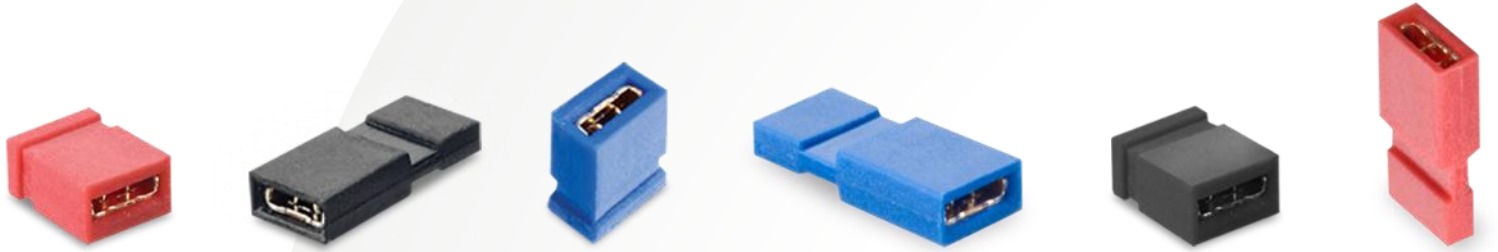
Both Male Plug and Female Receptacle Surface Mount connectors are available in Tape and Reel packaging options, ready to facilitate automated assembly processes to the PCB. Straight SMT connectors in tape and reel will be fitted with disposable pick-and-place caps.

Popular sizes are stocked, with other sizes available upon request.

ARCHER

BBi RANGE

ARCHER M50 - JUMPER SOCKETS: PROGRAMMING CONNECTORS



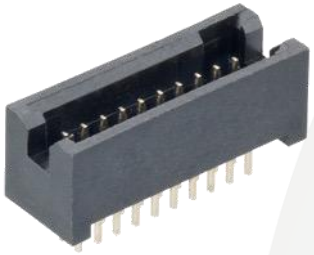
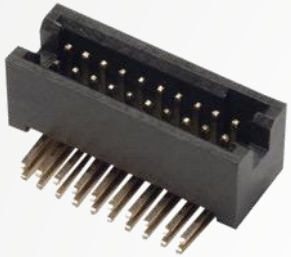
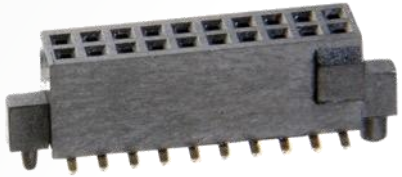
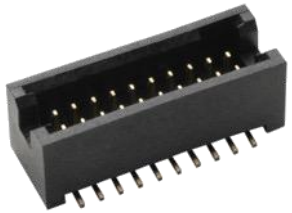
Jumper sockets (also known as shunts) provide additional programming options, changing data streams with manual placement of the sockets on a double-row pin header, changing the configuration of a design.

The M50 Jumper Sockets are available in black, red and blue, with or without a handle to facilitate placement and removal.

ARCHER

BBi RANGE

ARCHER M50 POLARIZED - ADDITIONAL PIN PROTECTION, ERROR-FREE MATING

Also in the Archer M50 range, a selection of shrouded and polarized connectors (double row only) is available:

- Female Receptacle: Surface Mount with location pegs.
- Male Plug: Straight and Right-Angle PC Throughboard Tail, Straight Surface Mount with and without location pegs.

The shrouding offers additional pin protection, whilst the polarization feature prevents mis-mating.

HARWiN

ARCHER

BBi RANGE

ARCHER M50 - ELECTRICAL SPECIFICATIONS

Current Rating	**1A** per contact
Contact Resistance	**30mΩ max**
Insulation Resistance	500MΩ min

Component Specifications are given in more detail on individual connector Technical Drawings, available to download from any individual product page.

ARCHER

ARCHER M50 - MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

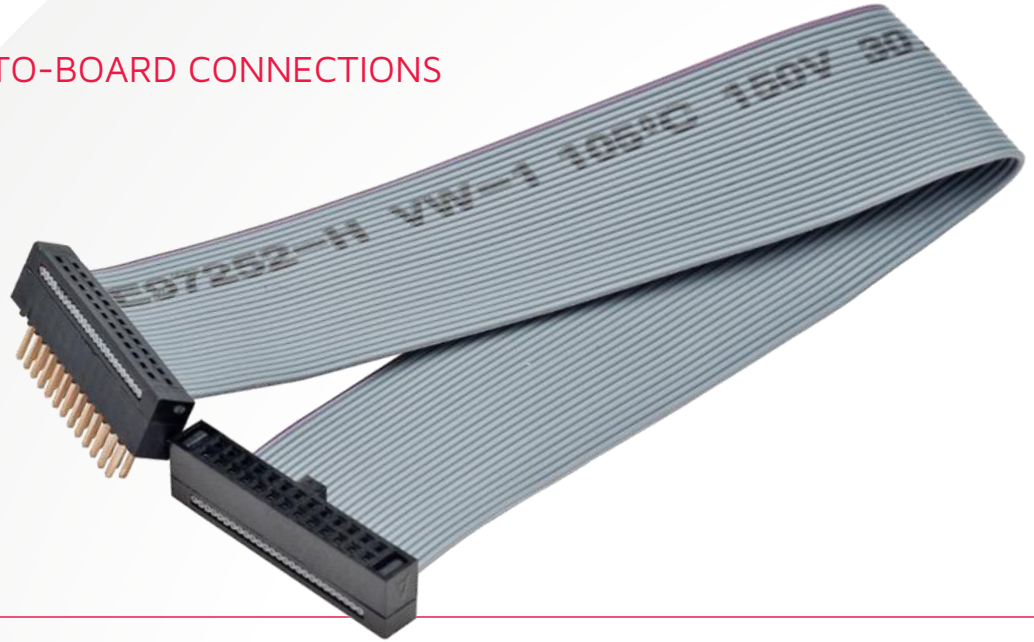
Durability	**25 – 600** mating cycles (connector dependent, check drawing)
Temperature Range	**-40°C to +105°C**
Vibration Resistance	**10-55Hz, 1.5mm,** 6 hours duration (connector dependent, check drawing)

All Throughboard Archer connectors are manufactured using the same housing materials used on the Surface Mount connectors, and can therefore withstand the same reflow soldering processes.

BBi RANGE

ARCHER

ARCHER M50 IDC - ADDING CABLE-TO-BOARD CONNECTIONS

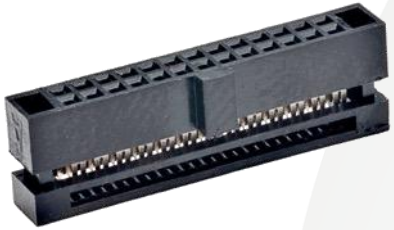


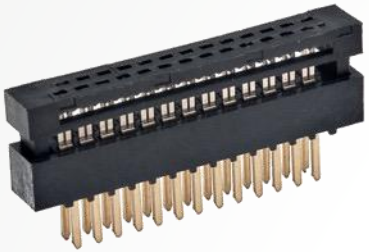
The Archer M50 range has additional cable-to-board options, by utilising Insulation Displacement Connectors (IDC) to provide a cable connection to 0.635mm pitch flat ribbon cables. IDC contacts make connection to the wire conductor cores by cutting through the insulation as part of the process of wire assembly to the connector. Therefore, no wire stripping is required, making the connectors a fast, single-operation connector.

ARCHER

BBi RANGE

ARCHER M50 IDC - FEMALE RECEPTACLE SOCKET, MALE PLUG DIP TRANSITION





The IDC connectors are available loose, in two gender options:

- Female Receptacle IDC Socket, with polarisation features,
- Male Plug DIP transition header – can be plugged into existing M50 connectors, or mounted directly to the PCB.

The products are suited to accommodate 0.635mm pitch, 30AWG ribbon cable. Tools Z50-020 (for Female Receptacle) and Z50-030 (for Male Plug) are available to assist with the manufacture of your own cable assemblies.

ARCHER M50 IDC - STANDARD CABLE ASSEMBLIES

To save time and additional cost, cable assemblies using the M50 IDC connectors are available as standard products:

- Male-to-Female,
- Female-to-Female.

Both cable assembly types are available in 150mm or 300mm cable lengths. If you need another length ready-made, please contact our Team with your full requirements.

BBi RANGE

ARCHER

ARCHER M50 IDC - EJECTOR PCB CONNECTORS

To mate with the Female Receptacle IDC connector, shrouded and polarized double-row Male Plug PCB connectors are available. Both styles have secure, positive latches with a built-in ejector system:

- PC Throughboard Tail supplied in tubes;
- Surface Mount supplied in Tape and Reel packaging as standard, with retention posts.

ARCHER

BBi RANGE

ARCHER M50 IDC - ELECTRICAL SPECIFICATIONS

Current Rating	**0.5A min** per contact
Contact Resistance	**30mΩ max**
Insulation Resistance	1,000MΩ min

Component Specifications are given in more detail on individual connector Technical Drawings, available to download from any individual product page.

ARCHER M50 IDC - MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

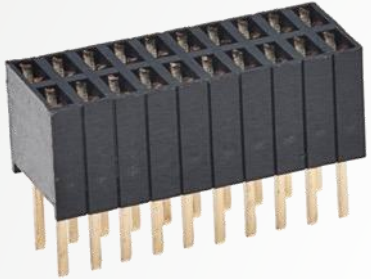
Durability	**100** mating cycles
Temperature Range	**-20°C to +105°C min**

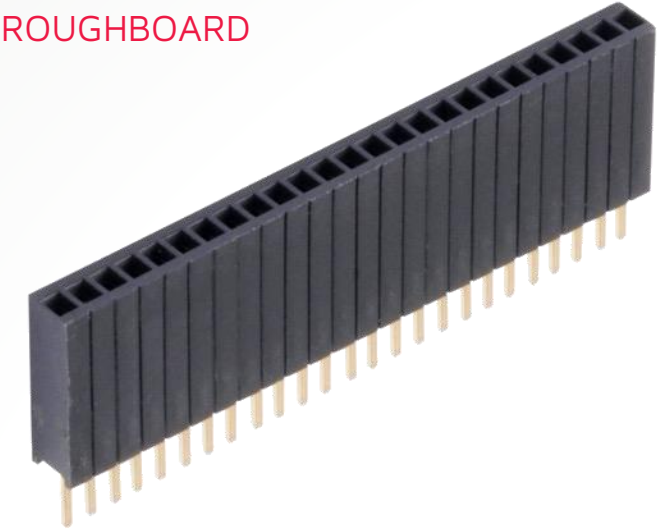
All Throughboard Archer connectors are manufactured using the same housing materials used on the Surface Mount connectors, and can therefore withstand the same reflow soldering processes.

ARCHER

BBi RANGE

ARCHER M52 – PCB MOUNT SOCKETS: SIL/DIL, SMT/THROUGHBOARD





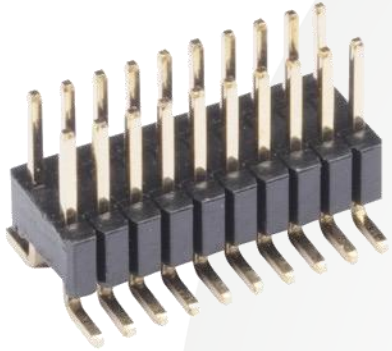
The Archer M52 range include both single and double row options, based on a 1.27mm pitch along the connector. Pitch between rows on the double row is 2.54mm, and male pins are 0.46mm square.

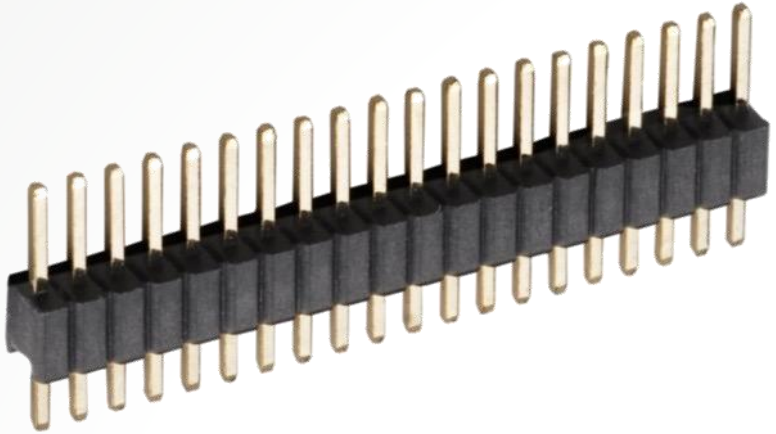
The Female Receptacle Straight sockets are 4.6mm or 8.5mm high, with a Surface Mount option that sits 6mm above the PCB. All use twin beam contacts for higher durability and better retention. SMT connectors are again available Tape and Reeled.

ARCHER

BBi RANGE

ARCHER M52 – PCB MOUNT HEADERS: SIL/DIL, SMT/THROUGHBOARD





Male Plug connectors in the M52 range are available as standard in the following formats:

- Straight PC Throughboard Tail, single and double row,
- Straight Surface Mount, single and double row.

Tape and reel options are available for Surface Mount upon request.

HARWiN

ARCHER

BBi RANGE

ARCHER M52 - ELECTRICAL SPECIFICATIONS

Current Rating	**1A** per contact
Contact Resistance	**30mΩ max**
Insulation Resistance	1,000MΩ min

Component Specifications are given in more detail on individual connector Technical Drawings, available to download from any individual product page.

ARCHER

BBi RANGE

ARCHER M52 - MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Durability	**300** mating cycles
Temperature Range	**-40°C to +105°C**
Vibration Resistance	**50-2,000Hz, 3.13G,** 45 min duration (connector dependent, check drawing)

All Throughboard Archer connectors are manufactured using the same housing materials used on the Surface Mount connectors, and can therefore withstand the same reflow soldering processes.

ARCHER

BBi RANGE

MARKETS

Every application where larger pitch connectors are used can benefit from the space-saving advantages of 1.27mm pitch pin headers and sockets. Smaller and lighter equipment modules can be designed, or equipment can now be designed down to a hand-held form, with the same reliability and quality assurances.

- Consumer Electronics
- Radio and Telecoms
- Drives and Controls
- Medical Diagnostics
- Hand-held devices

HARWiN

LEARN MORE ABOUT OUR OTHER RANGES

Find out more about our full range of inter-connection solutions at www.harwin.com

HARWiN

GET HELP FROM A HARWIN EXPERT

Our experts are specialists in their field with many years of experience in their respective roles and industries.

Find an expert that can help you with your enquiry.

Click Here >>

CAD Models and Evaluation Samples also available at www.harwin.com

HARWiN

HARWiN

CONNECT TECHNOLOGY
WITH CONFIDENCE

E: support@harwin.com

WWW.HARWIN.COM