



Electronics Manufacturing Services



Electronic production services

Electronics – Development, Board, Box, and Bench cover a wide range of technical activities dedicated to the application of electronics to enhance industrial and manufacturing processes. Types of end customer applications include motor control, lighting, industrial control, metering, security, welding equipment, and power supplies. Each customer will have a design engineer, or team working on the creation of hardware and software solutions.

Engineers look at:

- How to design, create and improve electronic and electrical equipment
- Designing existing products better/faster/cheaper than before
- Problem solving
- Innovation

Application & Solution

1 Development tool and evaluation board

Solution:

RS have over 2,300 low-cost development and evaluation tools, from our major manufacturers - supporting a variety of products, including microcontrollers, power management, and programmable logic - allowing engineers to prove a concept or simulate end-to-end applications. Helping speed up development.

2 Board:

Solution:

Free powerful tools, resources and access to a community of fellow engineers help reduce design cycles. Stock of hottest products and latest technologies of leading brands keeps engineers at a competitive edge.

3 Box:

Solution:

Many standard, modular, & bespoke PCB solutions in all shapes and sizes in various materials are available. Plus a wide range of guides, brackets, & fasteners

4 Workbench:

Solution:

The state-of-the-art internal UKAS certified calibration laboratory offers a wide range of instrument standards (RS) or UKAS certification (BSEN ISO 9001:2008 & ISO/IEC17025:2005) calibration. Offer static protection and storage of cables and wires.

Common industrial needs

- 1 Development tool and evaluation board
- 2 Board
- 3 Box
- 4 Workbench










Key technology

Board - IC's










- Microcontroller
- Simulation
- Power supply and discrete components
- Photoelectric element
- Connector



Semiconductor											
Brand	Discrete semiconductor	Semiconductor development kit	Power management IC	Data conversion	Interface chip	Processor and microcontroller	Sensor IC	Standard logic	Memory chip	Programmable logic circuit	Display driver and controller
Vishay	✓				✓		✓				
STMicroelectronics	✓	✓	✓		✓	✓	✓	✓	✓		✓
ON Semiconductor	✓	✓	✓	✓	✓		✓	✓	✓		✓
Infineon	✓	✓	✓		✓	✓	✓				✓
IXYS	✓										
Nexperia	✓		✓		✓			✓			
DiodesZetex	✓		✓				✓	✓			✓
Fairchild Semiconductor	✓		✓		✓			✓			
Wolfspeed	✓	✓									
Semikron	✓	✓	✓								
Fuji Electric	✓		✓								
Broadcom	✓			✓			✓	✓			
Texas Instruments		✓	✓	✓	✓	✓	✓	✓			✓
Analog Devices		✓	✓	✓	✓	✓	✓	✓			✓
SEGGER		✓									
Renesas Electronics		✓	✓	✓	✓	✓					✓
FTDI Chip		✓			✓			✓			
Xilinx		✓							✓	✓	
Linear Technology			✓	✓	✓			✓			✓
Microchip			✓	✓	✓	✓	✓	✓	✓	✓	
Maxim			✓	✓	✓	✓	✓	✓	✓		✓
Silicon Labs						✓	✓				
Honeywell							✓				
Allegro Microsystems							✓				












Product picture	Product description	RS inventory No.
	STMicroelectronics MCU Microcontrol Unit, STM32F Series 32-bit, ARM Cortex M3, 1xUSB, LQFP-64	714-1079
	MCU Microcontrol Unit, LPC24 Series 16/32-bit, ARM7TDMI-S, 1xUSB, TFBGA-180	725-7809
	Microcontrol Unit, ADuC8 Series 8-bit, 8051, LFCSP-56	819-7354
	STMicroelectronics MCU Microcontrol Unit, STM32F Series 32-bit, ARM Cortex M4, 2xUSB, LQFP-144	792-6079
	MCU Microcontrol Unit, C8051F Series 8-bit, 8051, TQFP-100	526-9002
	Z0853606VSG Z -CIO and CIO and Parallel I/O units, 44-pin PLCC Package	625-9056
	MCU Microcontrol Unit, C8051F Series 8-bit, 8051, QFP-48	757-4839
	MCU Microcontrol Unit, PIC18F Series 8-bit, PIC, TQFP-44	912-2938
	MCU Microcontrol Unit, Z8 Series 8-bit, Z8, PDIP-28	660-0785

Semiconductor											
Brand	Discrete semiconductor	Amplifier and comparator	Semiconductor development kit	Power management IC	Data conversion	Standard logic	Crystal, oscillators and resonator	Memory chip	Programmable logic circuit	Clock, timing and frequency control circuit	
Vishay	✓										
STMicroelectronics	✓	✓	✓	✓		✓		✓			✓
ON Semiconductor	✓	✓	✓	✓	✓	✓	✓	✓			✓
Infineon	✓	✓	✓	✓							
IXYS	✓										
Nexperia	✓			✓		✓					✓
DiodesZetex	✓	✓		✓		✓					✓
Fairchild Semiconductor	✓	✓		✓		✓					
Wolfspeed	✓		✓								
Semikron	✓		✓	✓							
Fuji Electric	✓			✓							
Broadcom	✓	✓			✓	✓					
Texas Instruments		✓	✓	✓	✓	✓					✓
Analog Devices		✓	✓	✓	✓	✓	✓				✓
SEGGER			✓								
Renesas Electronics			✓	✓	✓						✓
FTDI Chip			✓			✓					
Xilinx			✓					✓	✓		
Linear Technology				✓	✓	✓	✓				✓
Microchip				✓	✓	✓		✓	✓		✓
Maxim				✓	✓	✓	✓	✓			✓
Silicon Labs							✓				✓

Product picture	Product description	RS inventory No.
	ADI True RMS DC Converter AD736, Maximum Input Voltage 0.2V, Maximum Output 2mA, 8-pin CDIP Package	758-9765
	Operational Amplifier CDIP Package, Accurate, Through-Hole, 8-pin, 8MHz Gain-Bandwidth Product, unavailable	759-0617
	ADE7880ACPZ Energy Meter IC, 40-pin, LFCSP WQ Package	807-1766
	Isolation Amplifier, Dual Power, Through-Hole, 12-Pin, 120dB Isolation Mode Suppression, PDIP Package	912-9983
	Analog Multiplier, Single-Ended Output, 4 Quadrants, Up to 1MHz, 14-pin, SBCDIP Package	913-0790
	ADM3053BRWZ 1Mbps CAN Transceiver, Supporting ISO 11898, Power Off at Standby, 20-pin, SOIC Package	912-9642
	Analog Multiplier, Single-Ended Output, 4 Quadrants, Up to 1MHz, 14-pin, SBCDIP Package	709-5844
	ADI True RMS DC Converter, 14-pin, SBCDIP Package	913-0793
	Operational Amplifier TO-99 Package, Through-Hole, 8-pin, 1MHz Gain-Bandwidth Product, unavailable	912-7687










Semiconductor

Brand	Discrete semi-conductor	Amplifier and comparator	Semiconductor development kit	Power management IC	Data conversion	Standard logic	Crystal, oscillators and resonator	Memory chip	Programmable logic circuit	Clock, timing and frequency control circuit
Vishay	✓									
STMicroelectronics	✓	✓	✓	✓		✓		✓		✓
ON Semiconductor	✓	✓	✓	✓	✓	✓	✓	✓		✓
Infineon	✓	✓	✓	✓						
IXYS	✓									
Nexperia	✓			✓		✓				✓
DiodesZetex	✓	✓		✓		✓				✓
Fairchild Semiconductor	✓	✓		✓		✓				
Wolfspeed	✓		✓							
Semikron	✓		✓	✓						
Fuji Electric	✓			✓						
Broadcom	✓	✓			✓	✓				
Texas Instruments		✓	✓	✓	✓	✓				✓
Analog Devices		✓	✓	✓	✓	✓	✓			✓
SEGGER			✓							
Renesas Electronics			✓	✓	✓					✓
FTDI Chip			✓			✓				
Xilinx			✓					✓	✓	
Linear Technology				✓	✓	✓	✓			✓
Microchip				✓	✓	✓		✓	✓	✓
Maxim				✓	✓	✓	✓	✓		✓
Silicon Labs							✓			✓

Product picture	Product description	RS inventory No.
	Switching Diode, Peak Reverse Repetitive Voltage 400V, 2-pin, T Module Package, Maximum Operating Temperature +150°C	395-9163
	SCR, Vrrm = 1600V, PCT Transistor, Average On-state Current 110A, Maximum Gate Trigger Current 150mA, Thread Mounting	395-9242
	Rectifier Bridge, Single Phase, 25A Peak Average Forward Current, 1600V Peak Reverse Repetitive Voltage, Screw Mounting, 4-pin, D34 Package	227-8716
	Diode, Peak Reverse Repetitive Voltage 800V, 2-pin, P600 Package, Maximum Operating Temperature +150°C	918-9436
	Rectifier Bridge Module, Three-Phase, 200A Peak Average Forward Current, 1600V Peak Reverse Repetitive Voltage, Panel Mounting, 6-pin	300-278
	Transistor, PNP, Maximum DC Collector Current 20A, TO-204AA Package, 2MHz, 2-pin	122-0070
	Switching Diode, Peak Reverse Repetitive Voltage 1200V, 12-pin, SOT-227B Package, Maximum Operating Temperature +150°C	192-433
	Diode Schottky, Peak Reverse Repetitive Voltage 45V, 2-pin, DO-41 Package, Maximum Operating Temperature +125°C	781-5616
	Transistor, NPN, Maximum DC Collector Current 30A, TO-247 Package, 1MHz, 3-pin	124-5326
	Diode, Peak Reverse Repetitive Voltage 1600V, 3-pin, INT-A-PAK Package, Maximum Operating Temperature +150°C	395-8003
	Transistor, NPN, Maximum DC Collector Current 16A, TO-204 Package, 4MHz, 3-pin	544-9646

Display and optoelectronics

Brand	Laser module and components	Optical coupler, detector and interrupter	LED and accessories	LED and components	Fiber components	Display and industrial monitor	LED lighting system components
Displaytech	✓					✓	
Broadcom	✓	✓	✓	✓	✓	✓	
Powertip	✓					✓	
Kingbright	✓		✓	✓		✓	✓
OSRAM Opto Semiconductors		✓		✓		✓	✓
Centronic		✓					
Vishay		✓		✓		✓	
Dialight			✓	✓			
Honeywell				•			
Ledil							✓
Recom							✓










Product picture	Product description	RS inventory No.
	Photodiode 5T Series 900Nm, Through-Hole Mounting, Infrared + Visible Light Silicon, TO-5 Package	194-076
	Photodiode 565Nm, Through-Hole Mounting, Visible Light 50° Silicon, TO-5 Package	708-2813
	Photocoupler, Surface Mounting, DC Input, 8-pin, PDIP-W Package	696-1245
	Photocoupler 4-Channel, Through-Hole Mounting, DC Input, 16-pin, PDIP Package	632-4857
	Photodiode 550Nm, Through-Hole Mounting, Full Spectrum 55° Silicon, TO-39 Package	497-5661
	Photodiode 850Nm, Through-Hole Mounting, Infrared ±40° Silicon, TO-18 Package	912-8306
	Photocoupler, Surface Mounting, DC Input, 5-pin, Mini-Flat Package	315-668
	Photocoupler 2-Channel, Through-Hole Mounting, DC Input, 8-pin, DIP Package	547-3920
	Photodiode 1550Nm, Through-Hole Mounting, Infrared InGaAs, TO-46, TO-5 Package	848-6257

Display and optoelectronics

Brand	PCB connector	USB, D-SUB connector	RF, coaxial connector	Square connector	Power connector	Cylindrical connector	Power and IEC connector and accessories	Connector tools and accessories	Network and telecommunication connector	IC socket	Connection board and DIN track terminal	Audio and video connector	Terminal and connector
TE Connectivity	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓
Molex	✓				✓			✓	✓			✓	✓
HARTING	✓	✓			✓				✓				
HARWIN	✓									✓			
RS PRO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Samtec	✓												
ERNI	✓												
JST	✓							✓					✓
Hirose	✓								✓				
Phoenix Contact	✓								✓		✓		
JAE	✓												
3M	✓	✓							✓	✓			
MH Connectors		✓							✓				
FCT - A MOLEX COMPANY		✓											
ITT Cannon		✓		✓	✓	✓							
Bulgin		✓					✓		✓				
Cinch		✓											
Amphenol FCI		✓							✓		✓		
Radiall			✓										
Huber & Suhner			✓										
Telegartner			✓						✓				

Display and optoelectronics

Brand	PCB connector:	USB, D-SUB connector	RF, coaxial connector	Square connector	Power connector	Cylindrical connector	Power and IEC connector and accessories	Connector tools and accessories	Network and tele-comm-unication connector	IC socket	Connection board and DIN track terminal	Audio and video connector	Terminal and connector
Anderson Power Products					✓								
Schaffner							✓						
Schurter							✓						
Brad									✓				
Hirose									✓				
Phoenix Contact											✓		
Neutrik												✓	

Product picture	Product description	RS inventory No.
	Metal Shell, FMK Series, 9-Core, Die-cast Zinc Shell, Straight Positioning, Stress Removal, Shell Size: E	291-6187
	Connector, 9-way Socket, Panel Mounting, Standard D-Sub, Rated Voltage 750V DC, Rated Current 5A	473-896
	Connector Screw, Thread Size UNC4-40, Screw Locking, Screw Length 8mm, Used for D Connector	453-886
	Type A Interface, Buccaneer Series, Panel Mounting, Female, USB2.0, 1 Port, Straight, 1A Rated Current	468-6311
	Rectangular Connector, DL Series, 96-way, Male, Crimping Terminal, 5A Rated Current, 1.2kV AC Rated Voltage	406-616
	RJ45 Network Interface, Buccaneer Series, Female, Panel Mounting, Cat5e RJ45 Connector, 1 Port, Shielding, 8-way	468-6232
	Connection Terminal, MS Series, Male, Used for ZIF Connector, Crimping Terminal, 26-24 AWG Signal	295-3574
	D-sub Connector Rear Shell, MHDTZK-RA Series, 9-Core, Galvanized shell, Straight Positioning, Stress Removal	460-985
	Plug Body, DL Series, 60-way, Male, 5A Rated Current	129-6094

Key technology

Plate

Passive, interconnection and electrical machinery

Capacitor, resistor, connector, radiator, fuse, inductor, transformer












ebmpapst

Panasonic

molex®

Passive component									
Brand	Variable resistor	Capacitor	Fixed resistor	Passive filter	Ferrite core	Inductor	Speaker, buzzer and microphone components	Rotary encoder	Surge suppressor element
Vishay	✓	✓	✓			✓			
Bourns	✓	✓	✓			✓		✓	✓
RS PRO	✓	✓	✓	✓	✓	✓	✓		✓
TE Connectivity	✓		✓	✓	✓	✓		✓	
EPCOS	✓	✓	✓	✓	✓	✓			✓
Sifam	✓								
NXP	✓								
KEMET		✓	✓		✓	✓			
AVX		✓	✓			✓			
TDK		✓		✓	✓	✓	✓		
Samsung Electro-Mechanics		✓			✓				
Panasonic		✓	✓	✓		✓			
Murata		✓		✓	✓	✓	✓		
Nichicon		✓							
Yageo		✓	✓						
Rubycon		✓							
Arcol			✓						
Vishay Foil Resistors			✓						
Schaffner				✓		✓			
Würth Elektronik					✓	✓			
Richco					✓				
Sonitron							✓		
Alps Alpine								✓	
WJ Furze									✓

Product picture	Product description	RS inventory No.
	MLCC, Standard Series, 100nF, 25Vdc Surface Mounting, Tolerance $\pm 10\%$, 0603 (1608M) Package	616-9391
	Chip Capacitor, CL Series, 100nF, 25Vdc Surface Mounting, Tolerance $-20 \rightarrow +80\%$	766-4819
	Aluminum Electrolytic Capacitor B43508 Series, 450 Vdc, 680 μ F, Through-Hole Mounting, B43508 Package	838-4968
	Capacitor, PZB300 Series, Through-Hole Mounting, 275Vac, 2.2nF, 100nF24x12.5x16mm, PZB300MC11R30	121-5449
	RCK Series 0.5W50 Ω Radial Metal Film Fixed Resistor RCKO 2 50R 0.01%, $\pm 0.01\%$, ± 2 ppm/ $^{\circ}$ C	201-9832
	Base Mounted Resistor, HS100 Series, Wound Resistor, Resistance Value 1.5k Ω , Rated Power 100W, Tolerance $\pm 5\%$, Axial Connection	252-2940
	Potentiometer, LM10 Series, 5k Ω	317-780
	Base Mounted Resistor, HS100 Series, Wound Resistor, Resistance Value 15 Ω , Rated Power 100W, Tolerance $\pm 5\%$, Axial Connection	188-138
	Base Mounted Resistor, LPS800 Series, Thick-Film Resistor, Resistance Value 10 Ω , Rated Power 800W, Tolerance $\pm 5\%$, Screw Connection	684-2853

Main technology

Design Spark

Engineers can get plenty of free tools from our online resources to shorten their design cycle.



Developer tools

Development tools easy to use at low cost are provided by leading manufacturing suppliers to validate a concept and to simulate device programming or end-to-end applications.



Plate-Class IC

Microcontroller
Simulation
Power supply and discrete components
Photoelectric element
Connector



Plate

Passive, interconnection and electrical machinery
Capacitor, resistor, connector, radiator, fuse, inductor, transformer

