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PENTAIR




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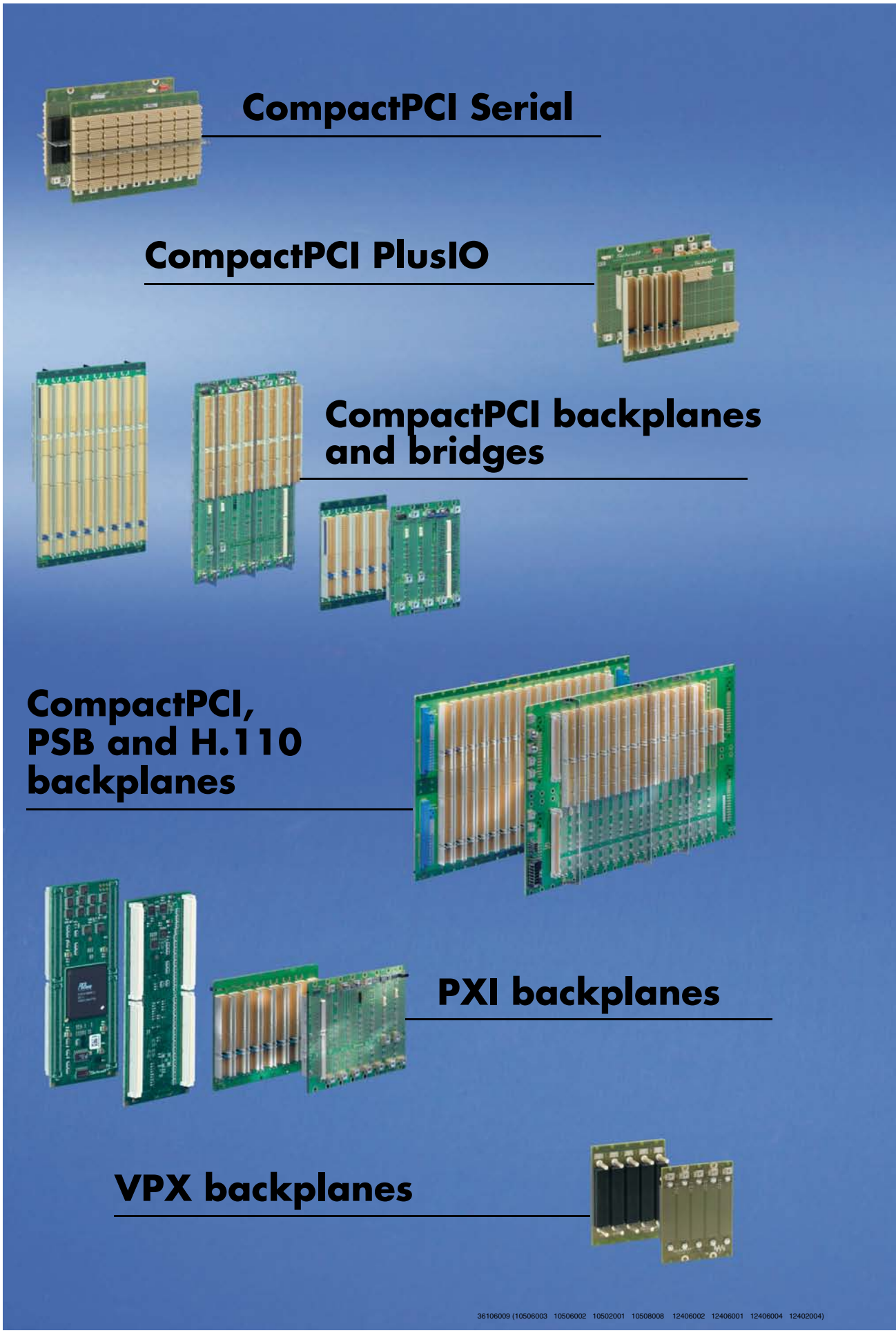
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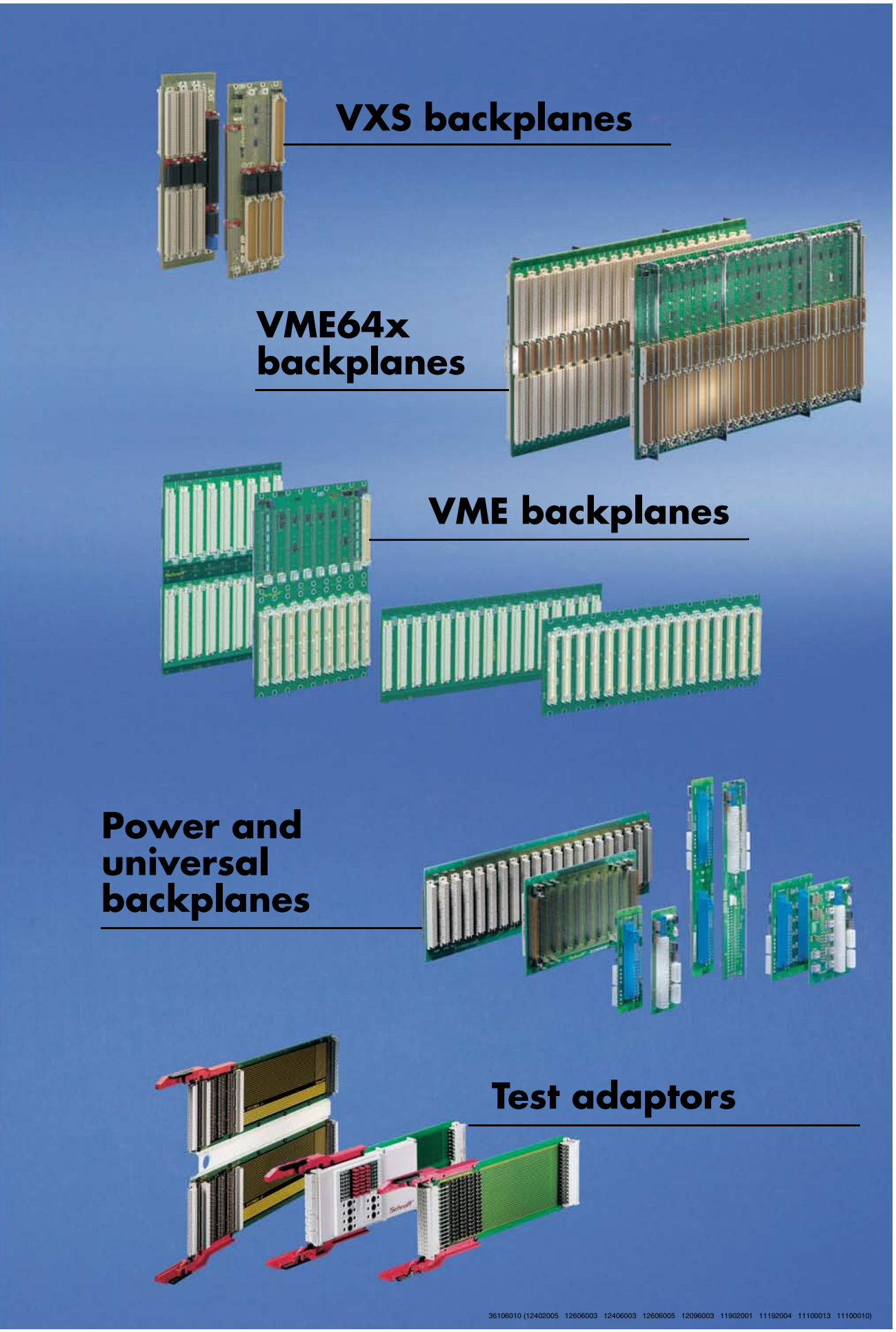
EQUIPMENT PROTECTION SOLUTIONS | 24TH EDITION | OCTOBER 2012

## 10 Backplanes

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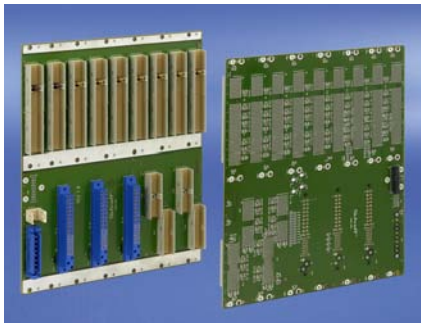
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## Our competence in overview



Custom backplane



Project management



Development



Layout



Test laboratory

### Comprehensive standard backplane programme

**AdvancedTCA - MicroTCA - CompactPCI - VME** - Schroff offers you an extensive standard backplane programme that is already ideally matched to your requirements. Should you still not find your backplane in our range, we can develop or modify to create your tailor-made backplane, quickly and on attractive terms.
All our developing and manufacturing is done in-house and competent personnel are available at any time to deal with technical questions, quotes and project support.

### Custom development to customer requirements

From minor modifications to our standard backplanes through to specific form factors and connection topologies, Schroff has the right solution for you

### One contact partner as customer interface

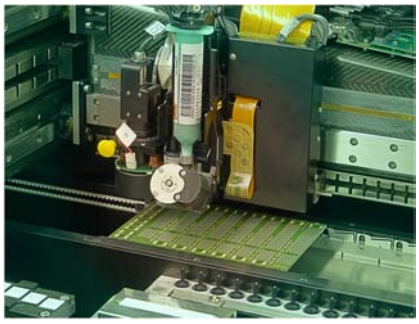
Competent personnel are available at any time for technical questions, quotes, project support and after-sales care. If you wish, we are also happy to help you generate the specification for your custom backplane. Contact at an early stage between our technical staff and our customers helps us to develop cost-optimised projects that meet all our customers' requirements.

### Many years of experience

50 years of experience, continual fundamental research and innovation in the backplane sector. Active participation in standards committees and in the specification of new system architectures and high-speed transmission technologies.

### Modern design tools

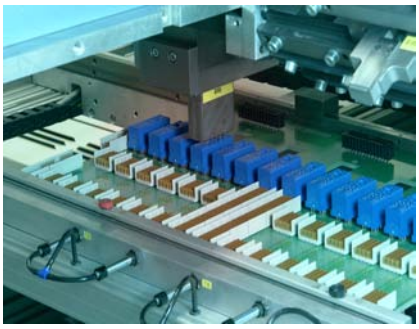
Modern simulation tools and measurement equipment plus in-house developed high-performance test adaptors. Development of new technologies and topologies using high-speed measurements performed in-house.



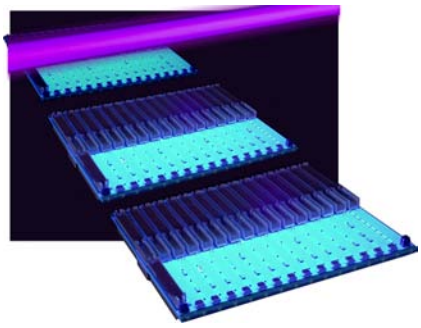
Solder paste printing



Automatic optical inspection (AOI)



Connector mounting



Conformal coating



Electrical final test

## Modern machine facilities in Straubenhardt

**Solder paste printing** is one of the quality-defining process steps in backplane manufacture. This solder-paste printer, based on innovative inkjet technology, allows fast, flexible and highly dependable solder paste printing. Since the process dispenses with the 'stencils' required by other methods, the printing program can be changed in a very short time. This means that small batches can also be printed cost-effectively.

Our modern **SMD placement machines** support a wide spectrum of components with a high placement performance. Small and large production runs can be implemented flexibly and time-efficiently.

**Vapour-phase soldering**, also known as vapour-phase reflow, is currently the most universal and most reliable soldering process. It is ideally suited to all types of SMD component and carrier material. The homogenous temperature distribution of the carrier medium allows the widest variety of sub-assemblies, from Flexprints to multilayer boards, to be soldered reliably without danger of overheating.

There is also the option of processing conventional components with our **wave-soldering system**.

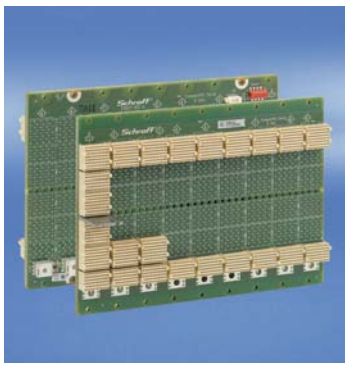
**Automatic optical inspection (AOI)** is an optical test procedure for sub-assemblies equipped with components. Highly-developed image processing systems reliably detect faulty soldered joints and wrongly placed or missing components.

Connectors are pressed into the backplane fully automatically. The **press-in technique** allows quick and economic mounting of the connector without subjecting the PCB to thermal stress. The press-in action creates a gas-tight, dependably electrically conductive and mechanically strong connection. Intelligent force/displacement measuring during the press-in action ensures consistent high quality.

Backplanes that are subject to particular climatic stresses can be coated with a **protective lacquer (conformal coating)**. This coating protects the backplane from e.g. corrosion and mould. The fluorescent characteristic of the protective coating enables the coating to be checked for completeness or damage under UV light.

No backplane leaves our production facility without **100% testing**. All backplanes are subjected to extensive electrical testing before despatch. An automatic process checks the entire backplane for continuity and short circuits. This testing also covers passive and simple active components such as resistors, capacitors and diodes and the description and testing of I2C EEPROMS or bus terminations. For this Schroff has a comprehensive automated and semi-automated testing facility.

## CompactPCI Serial



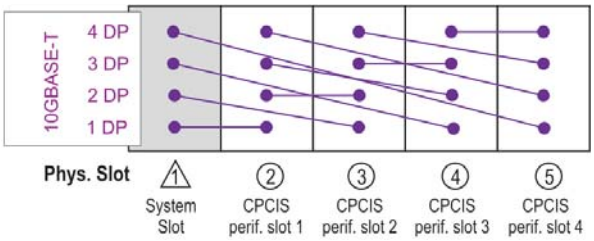
12411003

Photo shows 23007-612



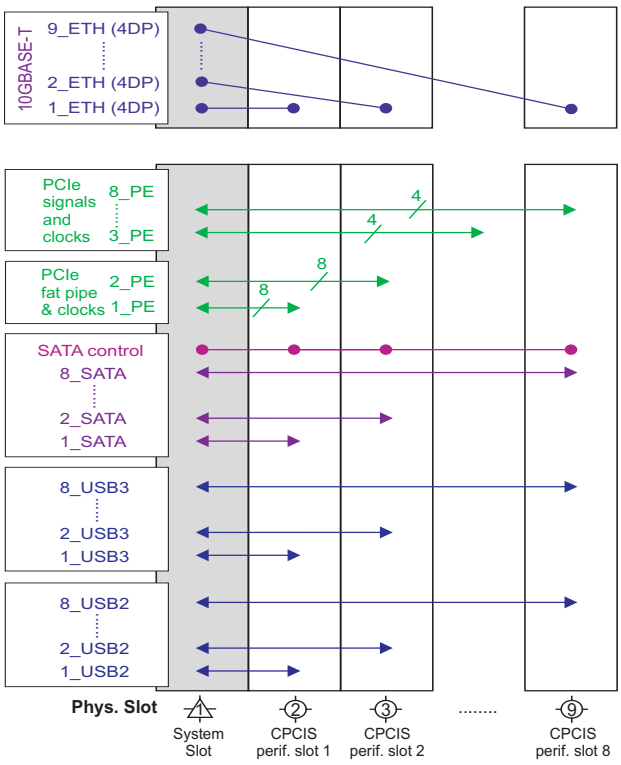
12411006

Photo shows 23007-614




12411051

Ethernet full mesh topology




12410052

PCIe, S-ATA & USB topology

- In accordance with PICMG CompactPCI Serial (CPCI-S.0 R1.0) specification
- 1 system slot (left) and 1 ... 8 peripheral slots
- Supports PCIe (Gen3), USB 2.0 and USB 3.0, S-ATA (II & Rev. 3.0) and Ethernet (10GBase-T)
- PCIe: two 8 x lanes and six 4 x lanes
- Power supply to +12 V payload supply via powerbugs
- Power supply to +5 V auxiliary via powerbugs
- Utility and IPMB connectors on rear of backplane
- Mechanical centring and keying/coding strip in stainless steel on every fully equipped front and rear slot

NEW

### Delivery comprises

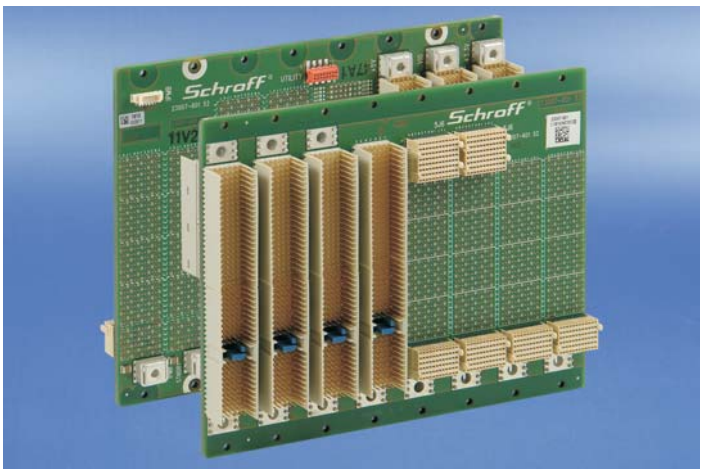
| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Backplane |
| 2 | 1 | Set of screws, M4x6, with lock washer; to attach the power connection cable to the power bugs |

### Order Information

| CompactPCI Serial | Number of slots | Width mm | Height U | Part no. |
|---|---|---|---|---|
| Full-mesh Ethernet, without rear I/O | 9 | 181.9 | 3 | 23007-611 |
| Full-mesh Ethernet, with rear I/O | 9 | 181.9 | 3 | 23007-613 |
| Single-star Ethernet, without rear I/O | 9 | 181.9 | 3 | 23007-612 |
| Single-star Ethernet, with rear I/O | 9 | 181.9 | 3 | 23007-614 |
| Single-star Ethernet, without rear I/O | 4 | 80.8 | 3 | 23007-624 |
| Single-star Ethernet, without rear I/O | 5 | 101.1 | 3 | 23007-625 |
| **Accessories** | | | | |
| **SM bus/IPMB cable** 4 individual wires with SMB plug to open end, length 750 mm, 1 piece | | | | 23204-113 |
| **Utility cable MicroMatch** with single conductors, length 600 mm, 1 piece | | | | 23204-812 |
| **Utility cable MicroMatch** with flat ribbon cable, length 600 mm, 1 piece | | | | 23204-811 |
| **Screws, washers for backplane mounting** | | | | **Page 10.28** |

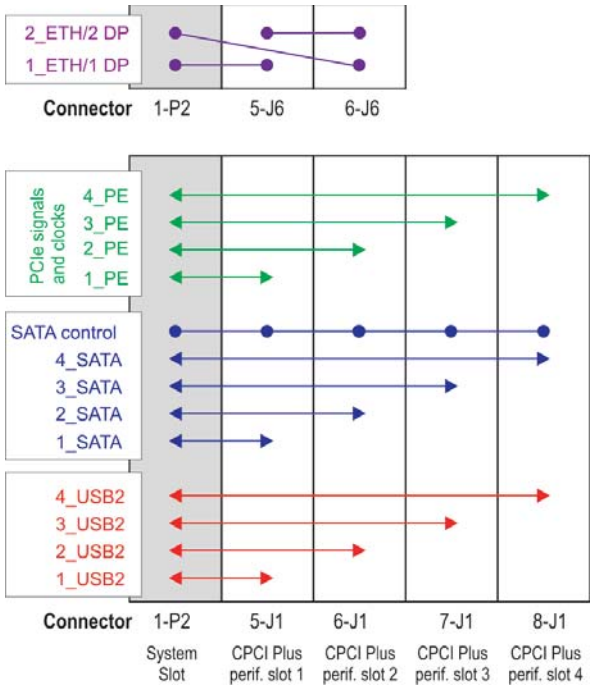
**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## CompactPCI PlusIO



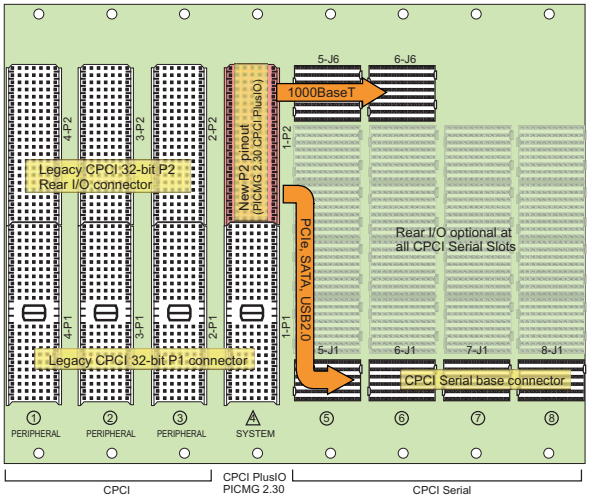

12411009

Photo shows 23007-601




12409053

Topology shows 23007-601




12409051

Front view

- In accordance with:
  - PICMG 2.0 R3.0 CompactPCI Core Specification
  - PICMG 2.1 R2.0 Hot-Swap Specification
  - PICMG 2.9 R1.0 System Management Bus Specification
  - PICMG 2.10 R1.0 Keying Specification
  - PICMG 2.30 R1.0 CompactPCI PlusIO specification
  - PICMG CompactPCI Serial (CPCI-S.0 R1.0) specification
- System slot in accordance with PICMG 2.30, 32-bit CPCI bus on P1, PCIe, S-ATA, USB & Ethernet on P2
- CompactPCI peripheral slots, 32 bit with rear I/O on P2
- CompactPCI Serial peripheral slots with PCIe x1, S-ATA and USB
- Full-mesh Ethernet on system slot and 2 CompactPCI Serial slots, supports 1000Base-T and 10GBase-T
- Rear I/O on the CompactPCI Serial slots available on request
- V(I/O) can be set to 3.3 V or 5 V (preset to 5 V)

NEW

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Backplane |
| 2 | 1 | Set of screws, M4x6, with lock washer; to attach the power connection cable to the power bugs |

### Order Information

| Number of slots | Width mm | Height U | Part no. |
|---|---|---|---|
| 3 CPCI + 2 CPCI Serial | 102.2 | 3 | 23007-602 |
| 4 CPCI + 4 CPCI Serial | 161.3 | 3 | 23007-601 |
| **Accessories** | | | |
| **SM bus/IPMB cable** 4 individual wires with SMB plug to open end, length 750 mm, 1 piece | | | 23204-113 |
| **Kit to convert V I/O to 3.3 V** 8 coding tabs, yellow, coding key, PU 1 kit | | | 21101-658 |
| **Utility cable MicroMatch** with single conductors, length 600 mm, 1 piece | | | 23204-812 |
| **Utility cable MicroMatch** with flat ribbon cable, length 600 mm, 1 piece | | | 23204-811 |
| **Screws, washers for backplane mounting** | | | **Page 10.28** |

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## CompactPCI backplane with system slot right

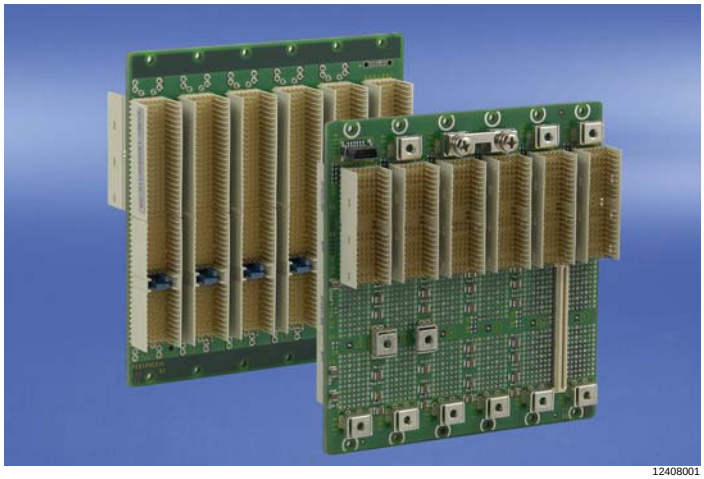
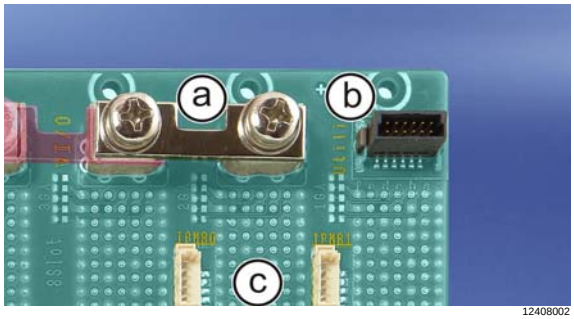



Photo shows 23006-816




a: V(I/O) bridge; b: Utility connector; c: IPMB connector

ServicePLUS see page 10.29

- In accordance with
  - PICMG 2.0 R3.0 CompactPCI Core specification
  - PICMG 2.1 R2.0 Hot Swap specification
  - PICMG 2.9 R1.0 System Management Bus specification
  - PICMG 2.10 R1.0 Keying specification
- Versions: 3 U 32-bit and 64-bit, 6 U 64-bit, with system slot right
- V(I/O) adjustable to +3.3 V or +5 V (see photo)
- Backplanes up to 5 slot are 66 MHz capable, 6 to 8 slot backplanes are set for 33 MHz operation
- Outstanding high-frequency noise suppression and very high MTBF values due to ceramic capacitors
- Digital GND can be connected to/isolated from chassis GND by means of screws
- Infeed of supply voltages via powerbugs (ring tag M4), FASTONs
- Utility plug for status signals (SMCQ)
- Intelligent platform management bus (IPMB) connector to PICMG 2.9

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | CompactPCI backplane with coding tab and V(I/O) bridge, fitted |
| 2 | 1 | Set of 6 M4 bolts, with lock washer; for power connection |

### Note

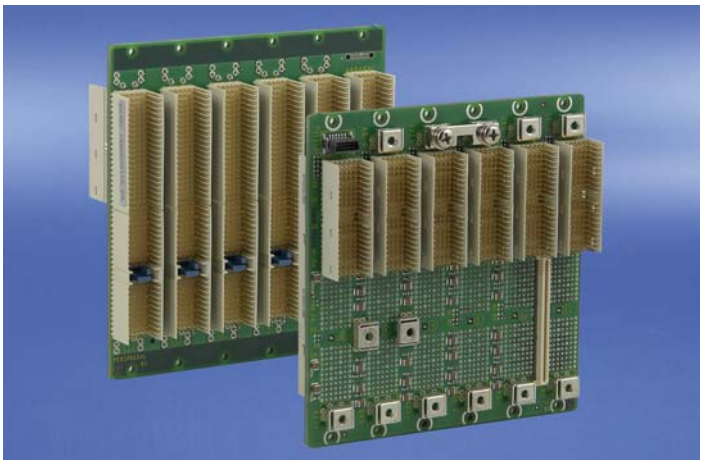
- 4 to 7 slot backplanes can be used as primary backplane with bridge
- Types marked with an asterisk * are available on request
- CompactPCI backplanes and secondary bridges see from page 10.9

### Order Information

| Number of slots | Width mm | 3 U, 32-bit, CompactPCI backplane 3.3 V V(I/O) Part no. | 3 U, 32-bit, CompactPCI backplane 5 V V(I/O) Part no. | 3 U, 64-bit, CompactPCI backplane 3.3 V V(I/O) Part no. | 3 U, 64-bit, CompactPCI backplane 5 V V(I/O) Part no. | 6 U, 64-bit, CompactPCI backplane 3.3 V V(I/O) Part no. | 6 U, 64-bit, CompactPCI backplane 5 V V(I/O) Part no. |
|---|---|---|---|---|---|---|---|
| 1 | 19.3 | 23006-331 | 23006-811 | 23006-331 | 23006-811 | –* | –* |
| 2 | 39.6 | 23006-332 | 23006-812 | –* | –* | 23006-372 | 23006-862 |
| 3 | 60.0 | 23006-303 | 23006-813 | 23006-353 | 23006-833 | 23006-373 | 23006-863 |
| 4 | 80.3 | 23006-334 | 23006-814 | 23006-354 | 23006-834 | 23006-374 | 23006-864 |
| 5 | 100.6 | 23006-301 | 23006-815 | 23006-355 | 23006-835 | 23006-375 | 23006-865 |
| 6 | 121.0 | 23006-336 | 23006-816 | –* | –* | 23006-376 | 23006-866 |
| 7 | 141.2 | 23006-337 | 23006-817 | –* | –* | 23006-377 | 23006-867 |
| 8 | 161.6 | 23006-300 | 23006-818 | 23006-358 | 23006-838 | 23006-378 | 23006-868 |

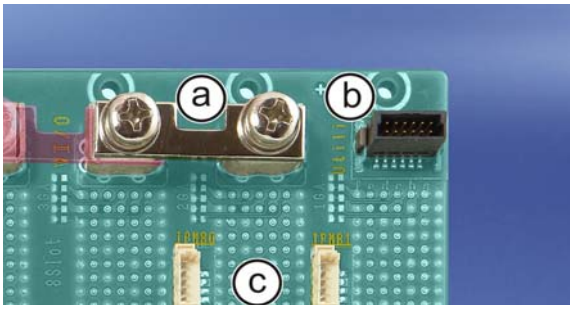
| Accessories | |
|---|---|
| **Kit to convert V I/O to 3.3 V** 8 coding tabs, yellow, coding key, PU 1 kit | 21101-658 |
| **Utility cable SMCQ** with flat ribbon cable, length 350 mm,2 × 12-pin female connector, 1 piece | 23204-115 |
| **Utility cable SMCQ** with flat ribbon cable, length 600 mm,2 × 12-pin female connector, 1 piece | 23204-116 |
| **Termination adaptor, 64-bit bus** for 8 slot CompactPCI backplane, 1 piece | 23006-931 |
| **SM bus/IPMB cable** 4 individual wires with SMB plug to open end, length 750 mm, 1 piece | 23204-113 |
| **Power Piggyback** usable with backplanes with 3 slots and up, 1 piece | 23098-100 |
| **Power backplane with P47 connector** | **Page 10.18** |
| **Screws, washers for backplane mounting** | **Page 10.28** |

## CompactPCI backplane with system slot left



12408001

Photo shows 23006-816




12408002

a: V(I/O) bridge; b: Utility connector; c: IPMB connector

ServicePLUS see page 10.29

- In accordance with
  - PICMG 2.0 R3.0 CompactPCI Core specification
  - PICMG 2.1 R2.0 Hot Swap specification
  - PICMG 2.9 R1.0 System Management Bus specification
  - PICMG 2.10 R1.0 Keying specification
- Versions: 3 U 32-bit and 64-bit, 6 HE 64-bit, with system slot left
- V(I/O) adjustable to +3.3 V or +5 V (see photo)
- Backplanes up to 5 slots are 66 MHz capable; 6 to 8 slot backplanes are set for 33 MHz operation
- Outer layers act as GND surfaces
- Outstanding high-frequency noise suppression and very high MTBF values due to ceramic capacitors
- Multiple backplanes can be placed together without loss of slots
- Digital GND can be connected to/isolated from chassis-GND by means of screws
- Infeed of supply voltages via powerbugs (ring tag M4), FASTONs
- Utility plug for status signals (SMCQ)
- Intelligent platform management bus (IPMB) connector to PICMG 2.9

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | CompactPCI backplane |
| 2 | 1 | Set of M4x6 bolts, with lock washer; for power connection |

### Note

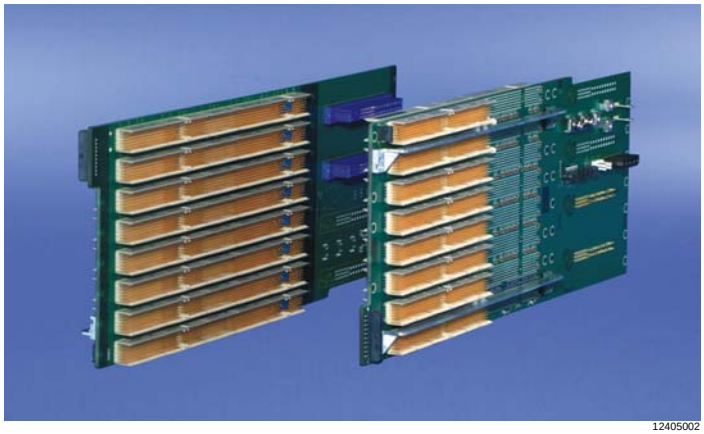
- 4 to 7 slot backplanes can be used as primary backplane with bridge (bridge for system slot left available on request)
- Types marked with an asterisk * are available on request

### Order Information

| Number of slots | Width mm | 3 U, 32-bit, CompactPCI backplane 3.3 V V(I/O) Part no. | 3 U, 32-bit, CompactPCI backplane 5 V V(I/O) Part no. | 3 U, 64-bit, CompactPCI backplane 3.3 V V(I/O) Part no. | 3 U, 64-bit, CompactPCI backplane 5 V V(I/O) Part no. | 6 U, 64-bit, CompactPCI backplane 3.3 V V(I/O) Part no. | 6 U, 64-bit, CompactPCI backplane 5 V V(I/O) Part no. |
|---|---|---|---|---|---|---|---|
| 1 | 19.3 | 23006-331 | 23006-811 | 23006-331 | 23006-811 | –* | –* |
| 2 | 39.6 | –* | –* | 23006-422 | 23006-732 | –* | –* |
| 3 | 39.6 | –* | –* | 23006-423 | 23006-733 | 23006-443 | 23006-763 |
| 4 | 80.3 | –* | –* | 23006-424 | 23006-734 | 23006-444 | 23006-764 |
| 5 | 100.6 | 23006-405 | 23006-715 | –* | –* | 23006-445 | 23006-765 |
| 6 | 121.0 | 23006-406 | 23006-716 | 23006-426 | 23006-736 | –* | –* |
| 8 | 161.6 | 23006-408 | 23006-718 | 23006-428 | 23006-738 | 23006-448 | 23006-768 |

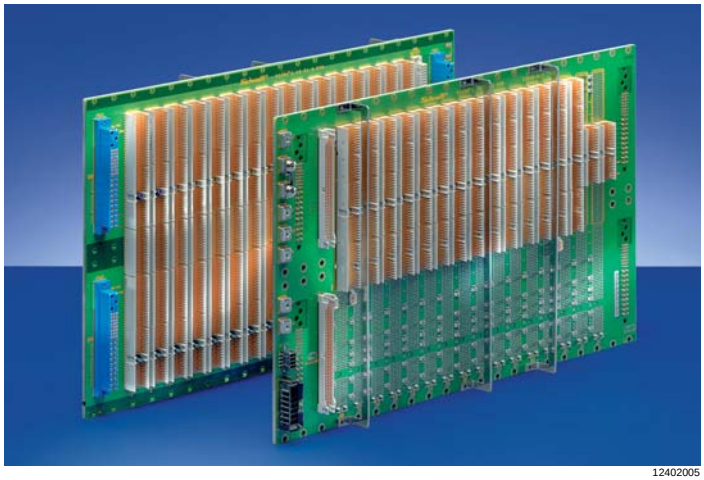
| Accessories | |
|---|---|
| **Kit to convert V I/O to 3.3 V** 8 coding tabs, yellow, coding key, PU 1 kit | 21101-658 |
| **Utility cable SMCQ** with flat ribbon cable, length 350 mm,2 × 12-pin female connector, 1 piece | 23204-115 |
| **Utility cable SMCQ** with flat ribbon cable, length 600 mm,2 × 12-pin female connector, 1 piece | 23204-116 |
| **Termination adaptor, 64-bit bus** for 8 slot CompactPCI backplane, 1 piece | 23006-931 |
| **SM bus/IPMB cable** 4 individual wires with SMB plug to open end, length 750 mm, 1 piece | 23204-113 |
| **Screws, washers for backplane mounting** | **Page 10.28** |

## CompactPCI, packaging switching and H.110 backplane



12405002

Photo shows 23006-797, 9 U



12402005

Photo shows 23006-621

ServicePLUS see page 10.29

- In accordance with
  - PICMG 2.0 R3.0 CompactPCI Core specification
  - PICMG 2.1 R2.0 Hot Swap specification
  - PICMG 2.9 R1.0 System Management Bus specification
  - PICMG 2.10 R1.0 Keying specification
  - PICMG 2.5 Computer Telephony specification (H.110)
  - PICMG 2.16 CompactPCI Packet Switching Backplanes
  - PICMG 2.11 CompactPCI Power Interface specification
- Various versions
  - CompactPCI, Packet Switching, H.110
  - Backplanes for horizontal installation and backplanes for horizontal installation including slots for plug-in power supply (P47)
- V(I/O) can be set to +3.3 V or +5 V
- Backplanes up to 5 slots are 66 MHz capable, 6 to 8 slot backplanes are set for 33 MHz operation
- Outer layers act as GND surfaces
- Outstanding high frequency noise suppression and very high MTBF values due to ceramic capacitors
- Digital GND can be connected to/isolated from chassis GND by means of screws
- Utility plug for status signals
- Intelligent platform management bus (IPMB) connector to PICMG 2.9

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | CompactPCI backplane |
| 2 | 1 | Set of M4x6 bolts, with lock washer; for power connection |

### Note

- Types marked with an asterisk * are available on request

### Order Information

| Number of slots | CompactPCI backplanes | Power connector | Data connection | Part no. |
|---|---|---|---|---|
| 2 | System slot left, for horizontal mounting | ATX (male) connector | 64-bit CompactPCI bus | 23006-792 |
| 2 | System slot left, for horizontal mounting | Mini-fit 10-pin | 64-bit CompactPCI bus | 23006-793 |
| 2 | System slot left, for horizontal mounting | 1 x P47 | 64-bit CompactPCI bus | 23006-794 |
| 4 | System slot left, for horizontal mounting | Mini-fit 24-pin | 64-bit CompactPCI bus | 23006-799 |
| 4 | System slot left, for horizontal mounting | 2 x P47 | 64-bit CompactPCI bus | 23006-795 |
| 4 | System slot left, for horizontal mounting | 2 x P47 | 64-bit CompactPCI bus, H.110 bus | 23006-615 |
| 6 | System slot left, for horizontal mounting | Mini-fit 24 pin | 64-bit CompactPCI bus | 23006-798 |
| 6 | System slot left, for horizontal mounting | 2 x P47 (optional third connector) | 64-bit CompactPCI bus | 23006-796 |
| 8 | System slot left, for horizontal mounting | 2 x P47 (optional third and fourth connectors) | 64-bit CompactPCI bus | 23006-797 |
| 8 | System slot left, for horizontal mounting | 2 x P47 (optional third and fourth connectors) | 64-bit CompactPCI bus, H.110 bus, PSB | 23006-611 |
| 8 | System slot right, for 6 U CompactPCI system, power input without loss of slot space | Powerbugs | 64-bit CompactPCI bus, H.110 bus | 23006-601 |
| 16 | System slot right, for 6 U CompactPCI system, incl. 1 slot for Schroff CMM, 2 independent CPCI segments, 7 slots each | 4 x P47, one above the other | 2 x 64-bit CompactPCI bus, 7 slot each, PSB | 23006-621 |



Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

## CompactPCI bridges




12402002

Photo shows 32-bit and 64-bit bridges

ServicePLUS see page 10.29

- In accordance with
  - PICMG 2.6 CompactPCI Bridging Specification
  - PCI 2.1 PCI Local Bus Specification, Rev. 2.1
- Bridge mounted on rear of backplane, hence no loss of slots
- Very compact and low bridge shape, no interference with rear transition boards
- Schroff CompactPCI backplanes with system slot right are used as primary backplane
- The 32-bit bridge is 33 MHz capable and the 64-bit bridge is 33/66 MHz capable
- Bridges are designed for primary backplanes with system slot right; bridges for system slot left available on request
- A summary of possible backplane/bridge combinations can be found on the Schroff website

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Bridge |

### Order Information

| Description | Part no. |
|---|---|
| CompactPCI bridge, 32 bit, 33 MHz, for system slot right | 23006-920 |
| CompactPCI bridge, 64-bit, 33/66 MHz, for system slot right | 23006-922 |

### Note

- 32-bit system slot left on request
- 64-bit system slot left on request

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## CompactPCI secondary backplanes, system slot to right



12401021

Photo shows primary and secondary backplane with inserted bridge and fitted rear transition board

- In accordance with
  - PICMG 2.0 R3.0 CompactPCI Core Specification
  - PICMG 2.1 R2.0 Hot-swap Specification
  - PICMG 2.9 R1.0 System Management Bus Specification
    PICMG 2.10 R1.0 Keying Specification
- Secondary backplane for use behind the bridge
- A summary of possible backplane/bridge combinations can be found on the Schroff website
- Secondary backplanes can also be used as tertiary backplanes; change of geographical address see user manual

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | CompactPCI backplane |
| 2 | 1 | Kit screws M4 x 6, with lock washers, for power connection |

### Order Information

| Number of slots | Height U | Description | Part no. |
|---|---|---|---|
| 4 | 3 | 32-bit | 23006-824 |
| 7 | 3 | 32-bit | 23006-827 |
| 7 | 3 | 64-bit | 23006-857 |
| 4 | 6 | 64-bit | 23006-884 |
| 7 | 6 | 64-bit | 23006-887 |
| **Accessories** | | | |
| **Screws, washers for backplane mounting** | | | **Page 10.28** |

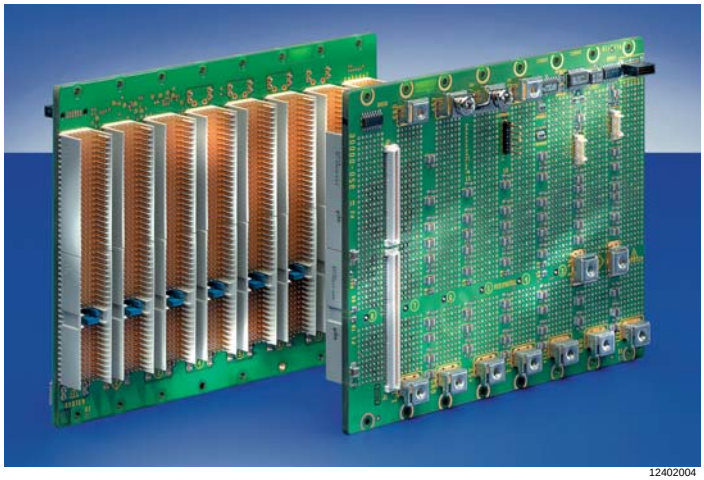
### Note

- Other configurations available on request or via **www.schroff.co.uk/configuration**

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

ServicePLUS see page 10.29

## PXI backplanes



12402004

Photo shows 23006-578

- In accordance with
  - PXI Specification R 2.0
  - PICMG 2.0 R3.0 CompactPCI Core Specification
  - PICMG 2.1 R2.0 Hot-swap Specification
  - PICMG 2.9 R1.0 System Management Bus Specification
  - PICMG 2.10 R1.0 Keying Specification
- 64-bit CompactPCI bus and PXI bus on the P2 plane
- Clock generated on the backplane; feeding in an external clock is possible, the backplane switches automatically between the two clocks
- Backplanes with up to 5 slots are capable of 66 MHz, 6 to 8 slot backplanes are set to 33 MHz operation
- Outstanding high-frequency noise suppression and very high MTBF values due to ceramic capacitors
- Utility connector for status signals
- Intelligent platform management bus (IPMB) connector to PICMG 2.9

ServicePLUS see page 10.29

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | PXI backplane |
| 2 | 1 | Kit screws M4 x 6, with lock washer, for power connection |

### Order Information

| Number of slots | System slot | | 5 V V(I/O) Part no. |
|---|---|---|---|
| 5 | left | primary | 23006-575 |
| 7 | left | primary | 23006-577 |
| 8 | left | primary | 23006-578 |
| 7 | left | secondary | 23006-587 |
| 4 | left | tertiary | 23006-594 |
| 7 | left | tertiary | 23006-597 |

| Accessories | |
|---|---|
| Screws, washers for backplane mounting | Page 10.28 |

### Note

- Other configurations available on request or via **www.schroff.co.uk/configuration**

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## PXI bridge



12405001

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | PXI bridge |

### Order Information

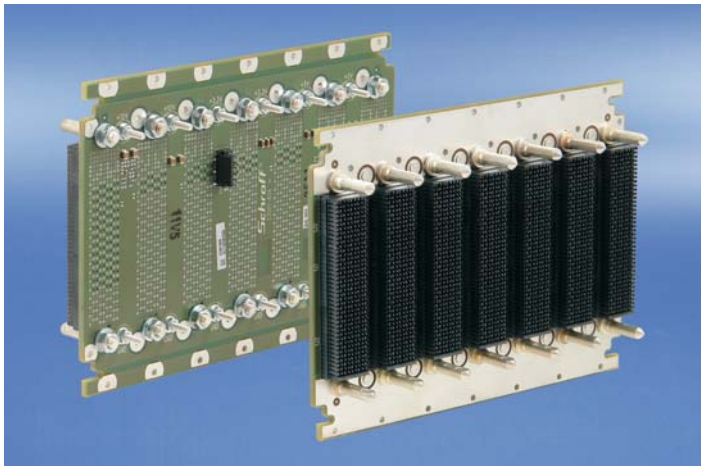
| Description | Description | Part no. |
|---|---|---|
| PXI bridge | 64-bit, 33/66 MHz | 23006-924 |

## VPX backplane, 3 U



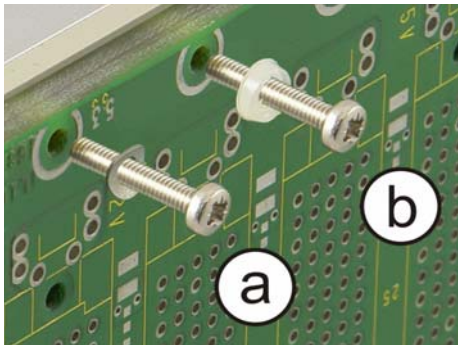
10513002

VPX backplane, 3 U, 5 slot, with rear I/O



10512002

VPX backplane, 3 U, 7 slot, without rear I/O




10508004

Backplane mounting: a: conductive, b: isolated

ServicePLUS see page 10.29

- In accordance with:
  - VITA 46.0 VPX base standard
  - VITA 46.3 Serial RapidIO on VPX
  - VITA 46.4 PCI Express on VPX Fabric Connector
  - VITA 46.7 Ethernet on VPX Fabric Connector
  - VITA 46.11 System Management on VPX
- JTAG connections
- 3 U, 5 slot, 0.8” slot pitch, full mesh topology to VITA 46.21 distributed switching on VPX rule 4 – 5 with additional slot for power supply
- 3 U, 7 slot, conforms additionally to VITA 65 OpenVPX
  - 6 payload slots, 1 switch slot with 1.0” slot pitch, single star topology conforming to BKP3-CEN07-15.2.3-3
  - Switch slot to SLT3-SWH-6F6U-14.4.1
  - Payload slots to SLT3-PAY-2F2U-14.2.3
- M4 power studs for power supply, max. 22 A per slot for each voltage
- Lockable aux utility and sense connectors
- DIP switch for system slot settings

NEW

### Order Information

| Description | Width mm | Slot pitch | Backplane type | Part no. |
|---|---|---|---|---|
| Open VPX backplane, 3 U, 7 slot, without rear I/O | 121.9 | 1,0" | Single star | 23001-814 |
| Open VPX backplane, 3 U, 7 slot, with rear I/O | 176.0 | 1,0" | Single star | 23001-815 |
| VPX backplane, 3 U, 5 slot, without rear I/O | 121.9 | 0,8" | Full Mesh | 23001-812 |
| VPX backplane, 3 U, 5 slot, with rear I/O | 176.0 | 0,8" | Full Mesh | 23001-813 |
| **Accessories** | | | | |
| **Screws, washers for backplane mounting** | | | | **Page 10.28** |

### Note

- Backplane to VITA 46.10; rear transition modules on request

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## Monolithic VME64x backplanes (6 U)

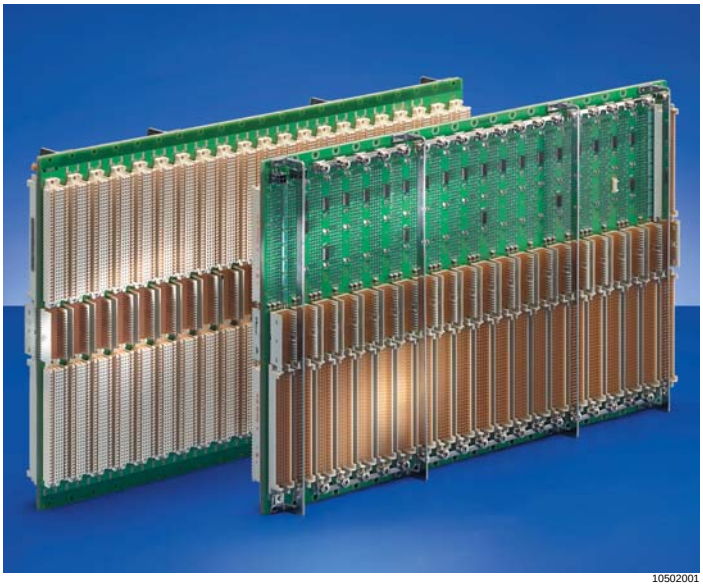
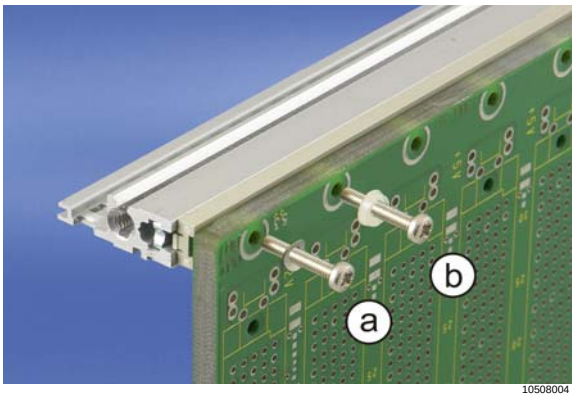
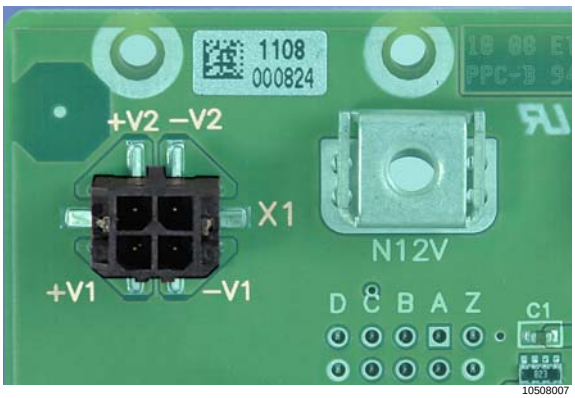



Photo shows 23001-551

- In accordance with:
  ANSI/VITA 1-1994 VME64 Standard
  ANSI/VITA 1.1-1997 VME64 Extension Standard
  ANSI/VITA 1.5-2003 VME2eSST Specification
  ANSI/VITA 1.7-2003 Increased Current Level
  ANSI/VITA 38 System Management on VME
- Monolithic backplane, 6 U with J1 and J2 plane
- Termination passive
- Electronic automatic daisy chain (EDC)
- Outstanding high-frequency noise suppression and very high MTBF values due to ceramic capacitors
- Connection or isolation between the digital GND and chassis GND can be effected via the screw fittings (see photo)
- Supply voltages can be applied via powerbugs (ring tag M4) or FASTON
- Utility connector for status signals
- System management bus (SMB) connector in accordance with VITA38
- Connector for additional voltages V1/V2 (see photo)




Backplane mounting: a: conductive, b: isolated




Connector for additional voltages V1/V2

ServicePLUS see page 10.29

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | VME64x backplane |
| 2 | 1 | Kit screws M4 × 6, with lock washer; for power connection |

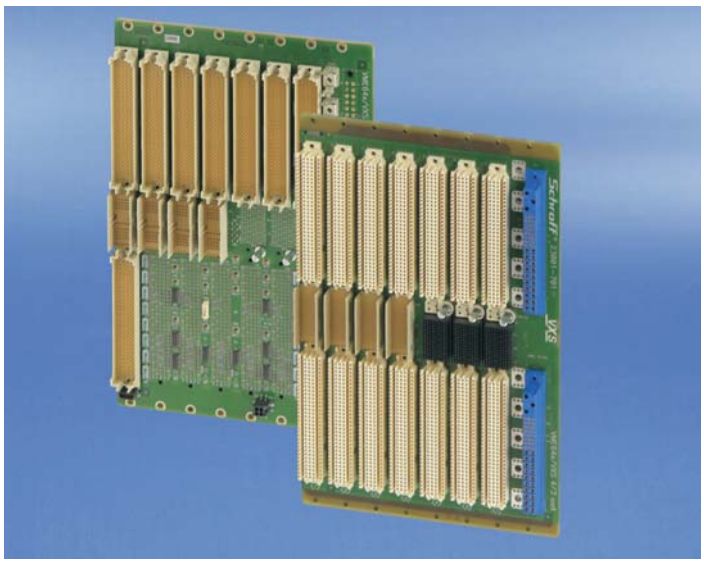
### Order Information

| Number of slots | Width | Height | Without P0 | With P0 |
|---|---|---|---|---|
| | mm | U | Part no. | Part no. |
| 2 | 39.1 | 6 | 23001-502 | 23001-532 |
| 3 | 59.5 | 6 | 23001-503 | 23001-533 |
| 4 | 79.8 | 6 | 23001-504 | 23001-534 |
| 5 | 100.2 | 6 | 23001-505 | 23001-535 |
| 6 | 120.5 | 6 | 23001-506 | 23001-536 |
| 7 | 140.8 | 6 | 23001-507 | 23001-537 |
| 8 | 161.1 | 6 | 23001-508 | 23001-538 |
| 10 | 201.8 | 6 | 23001-510 | 23001-540 |
| 11 | 222.0 | 6 | 23001-511 | 23001-541 |
| 12 | 242.4 | 6 | 23001-512 | 23001-542 |
| 15 | 303.4 | 6 | 23001-515 | 23001-545 |
| 16 | 323.7 | 6 | 23001-516 | 23001-546 |
| 20 | 405.0 | 6 | 23001-520 | 23001-550 |
| 21 | 425.3 | 6 | 23001-521 | 23001-551 |

| Accessories | |
|---|---|
| **SM bus/IPMB cable** 4 individual wires with SMB plug to open end, length 750 mm, 1 piece | 23204-113 |
| **Utility cable SMCQ** with flat ribbon cable, length 350 mm,2 × 12-pin female connector, 1 piece | 23204-115 |
| **Utility cable SMCQ** with flat ribbon cable, length 600 mm,2 × 12-pin female connector, 1 piece | 23204-116 |
| **Screws, washers for backplane mounting** | **Page 10.28** |

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## VXS



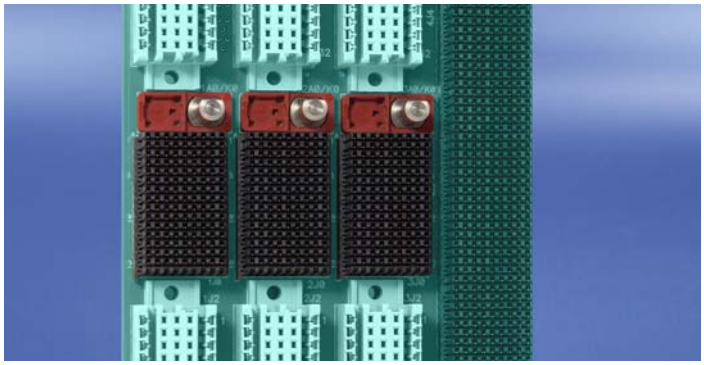
10506004

Photo shows 23001-701



10508002

Photo shows 23001-704



10508009

High-speed connector with keying and alignment pin

ServicePLUS see page 10.29

- In accordance with
  ANSI/VITA 41 VXS VMEbus Switched Serial Standard
  ANSI/VITA 1-1994 VME64 Standard
  ANSI/VITA 1.1-1997 VME64 Extension Standard
  ANSI/VITA 1.5-2003 VME2eSST Specification
  ANSI/VITA 1.7-2003 Increased Current Level
  ANSI/VITA 38 System Management on VME
- Parallel VMEbus on J1 and J2, serial data connections on P0
- MultiGig RT2 connector on P0 position for data transfer rates up to 10 Gbps per differential pair
- Dual star, star and ring topologies
- Keying and alignment pins to avoid mechanical and electrical damage
- Outstanding high-frequency noise suppression and very high MTBF values due to ceramic capacitors
- Supply voltages can be applied via powerbugs (ring tag M4), FASTONs or P47 connectors
- Utility connector for status signals
- System management bus (SMB) connector in accordance with VITA38
- Connector for additional voltages V1/V2

### Delivery comprises

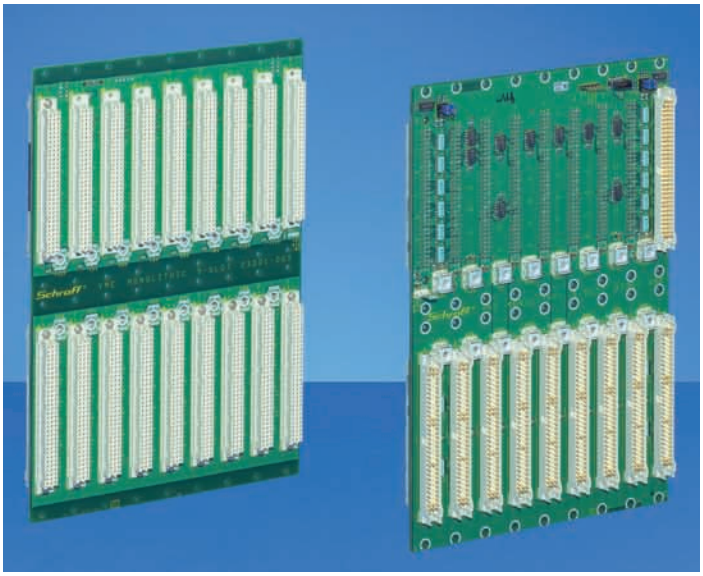
| Item | Qty | Description |
|---|---|---|
| 1 | 1 | VXS backplane |
| 2 | 1 | Set of M4x6 bolts, with lock washer; for power connection |

### Order Information

| Number of slots | Width mm | Height U | Description | Part no. |
|---|---|---|---|---|
| 4 | 80.3 | 6 | 1 VXS switch slot and 3 VXS payload slots | 23001-704 |
| 7 | 151.4 | 6 | 4 VME64x slots, 3 VXS payload slots, ring connected, 1 slot for 2 x 3 U PSUs, without VXS rear I/O | 23001-701 |
| 12 | 242.0 | 6 | 2 VXS switch slots and 10 VXS payload slots | 23001-712 |
| 20 | 405.4 | 6 | 2 VXS switch slots and 18 VXS payload slots | 23001-720 |
| **Accessories** | | | | |
| | | | **SM bus/IPMB cable** 4 individual wires with SMB plug to open end, length 750 mm, 1 piece | 23204-113 |
| | | | **Utility cable SMCQ** with flat ribbon cable, length 350 mm,2 × 12-pin female connector, 1 piece | 23204-115 |
| | | | **Utility cable SMCQ** with flat ribbon cable, length 600 mm,2 × 12-pin female connector, 1 piece | 23204-116 |
| | | | **Keying and alignment pin for VXS** Payload slot with RTM, PU 10 pieces | 20817-900 |
| | | | **Keying and alignment pin for VXS** Payload slot without RTM, PU 10 pieces | 20817-969 |
| | | | **Keying and alignment pin for VXS** Switch slots, PU 10 pieces | 20817-970 |
| | | | **Screws, washers for backplane mounting** | **Page 10.28** |

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## Monolithic J1/J2 backplane (6 U)



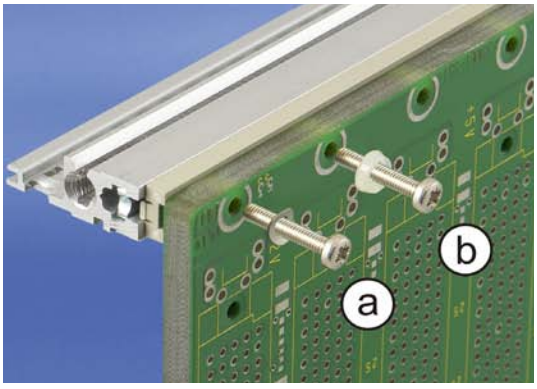
10506003

Photo shows 23001-069

- In accordance with ANSI/VITA 1-1994 VME64 standard
- Monolithic backplane, 6 U with J1 and J2 plane
- Active/passive termination switchable via jumpers; passive termination preset (see photo)
- Electronic automatic daisy chain (EDC)
- Outstanding high-frequency noise suppression and very high MTBF values due to ceramic capacitors
- Linking/separation of digital and chassis GNDs by means of a screw connection (see photo)
- Supply voltages provided via power bugs (ring tag M4) or FASTON
- Two utility connectors for status signals, two different configurations (see photo)

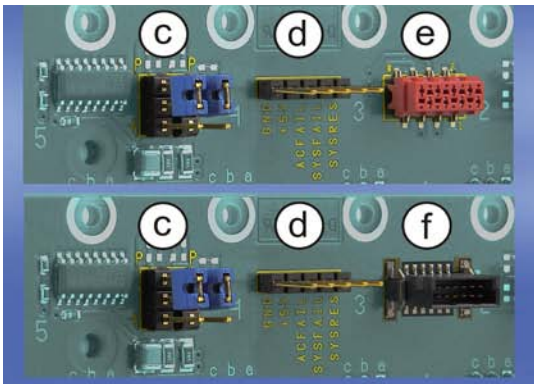
### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | VME monolithic J1/J2 backplane |
| 2 | 1 | Kit screws M4x6, with lock washer, for power connection |




10508004

Backplane mounting: a: conductive, b: isolated




10509001

c: termination switchover active/passive,
d: utility connector 1, e: utility connector 2 MicroMatch, f: utility connector 2 SMCQ

### Order Information

| Number of slots | Width mm | Height U | Utility connector 2 | Part no. |
|---|---|---|---|---|
| 3 | 59.5 | 6 | MicroMatch | 23001-063 |
| 4 | 79.8 | 6 | MicroMatch | 23001-064 |
| 5 | 100.2 | 6 | MicroMatch | 23001-065 |
| 6 | 120.5 | 6 | MicroMatch | 23001-066 |
| 7 | 140.8 | 6 | MicroMatch | 23001-067 |
| 8 | 161.1 | 6 | MicroMatch | 23001-068 |
| 9 | 181.4 | 6 | SMCQ | 23001-069 |
| 10 | 201.8 | 6 | MicroMatch | 23001-070 |
| 12 | 242.4 | 6 | MicroMatch | 23001-072 |
| 15 | 303.4 | 6 | MicroMatch | 23001-075 |
| 20 | 405.0 | 6 | SMCQ | 23001-080 |
| 21 | 425.3 | 6 | MicroMatch | 23001-081 |
| **Accessories** | | | | |
| **Utility cable MicroMatch** with single conductors, length 600 mm, 1 piece | | | | 23204-812 |
| **Utility cable MicroMatch** with flat ribbon cable, length 600 mm, 1 piece | | | | 23204-811 |
| **Utility cable SMCQ** with flat ribbon cable, length 350 mm, 2 × 12-pin female connector, 1 piece | | | | 23204-115 |
| **Utility cable SMCQ** with flat ribbon cable, length 600 mm, 2 × 12-pin female connector, 1 piece | | | | 23204-116 |
| **Screws, washers for backplane mounting** | | | | **Page 10.28** |

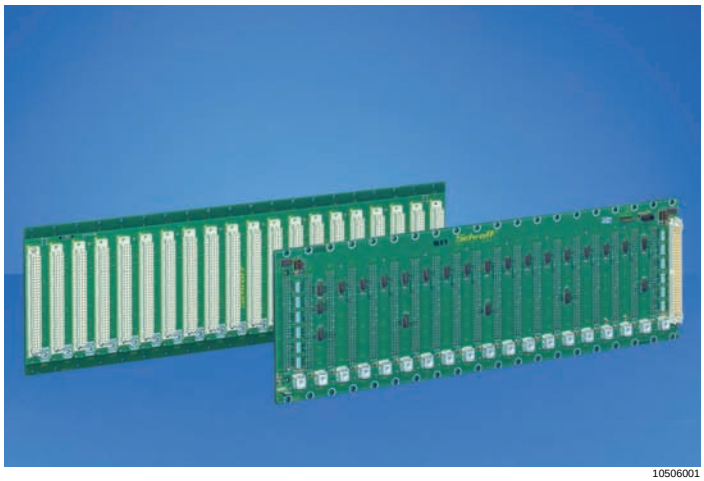
### Note

- Other configurations available on request or via **www.schroff.co.uk/configuration**

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

ServicePLUS see page 10.29

## J1 backplane (3 U)



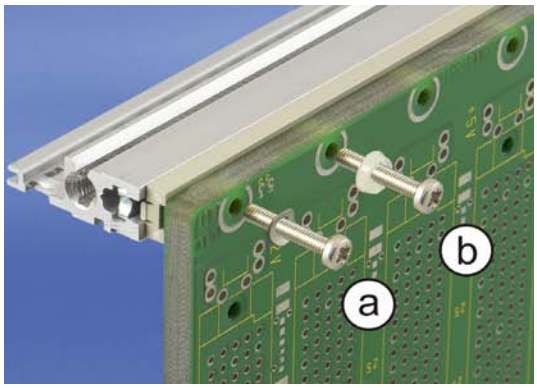
10506001

Photo shows 23001-020

- In accordance with ANSI/VITA 1-1994 VME64 standard
- 3 U with J1 plane
- Active/passive termination switchable via jumpers; passive termination preset (see photo)
- Electronic automatic daisy chain (EDC)
- Outstanding high-frequency noise suppression and very high MTBF values due to ceramic capacitors
- Linking/separation of digital and chassis GNDs by means of a screw connection (see photo)
- Supply voltages provided via power bugs (ring tag M4) or FASTON
- Two utility connectors for status signals, two different configurations (see photo)

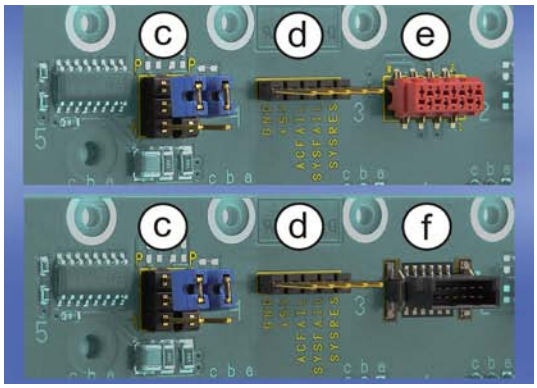
### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | VME J1 backplane |
| 2 | 1 | Kit screws M4x6, with lock washer; for power connection |




10508004

Backplane mounting: a: conductive, b: isolated




10509001

c: termination switchover active/passive,
d: utility connector 1, e: utility connector 2 MicroMatch, f: utility connector 2 SMCQ

### Order Information

| Number of slots | Width mm | Height U | Utility connector 2 | Part no. |
|---|---|---|---|---|
| 1 | 20.2 | 3 | - | 23001-001 |
| 2 | 39.1 | 3 | MicroMatch | 23001-002 |
| 3 | 59.7 | 3 | MicroMatch | 23001-003 |
| 4 | 79.8 | 3 | MicroMatch | 23001-004 |
| 5 | 100.2 | 3 | MicroMatch | 23001-005 |
| 6 | 120.5 | 3 | MicroMatch | 23001-006 |
| 7 | 140.8 | 3 | SMCQ | 23001-007 |
| 8 | 161.1 | 3 | MicroMatch | 23001-008 |
| 9 | 181.4 | 3 | MicroMatch | 23001-009 |
| 10 | 199.2 | 3 | SMCQ | 23001-010 |
| 12 | 242.4 | 3 | SMCQ | 23001-012 |
| 15 | 303.4 | 3 | MicroMatch | 23001-015 |
| 17 | 341.4 | 3 | MicroMatch | 23001-017 |
| 18 | 364.3 | 3 | MicroMatch | 23001-018 |
| 20 | 405.0 | 3 | MicroMatch | 23001-020 |
| 21 | 425.3 | 3 | MicroMatch | 23001-021 |
| **Accessories** | | | | |
| **Utility cable MicroMatch** with single conductors, length 600 mm, 1 piece | | | | 23204-812 |
| **Utility cable MicroMatch** with flat ribbon cable, length 600 mm, 1 piece | | | | 23204-811 |
| **Utility cable SMCQ** with flat ribbon cable, length 350 mm,2 × 12-pin female connector, 1 piece | | | | 23204-115 |
| **Utility cable SMCQ** with flat ribbon cable, length 600 mm,2 × 12-pin female connector, 1 piece | | | | 23204-116 |
| **Screws, washers for backplane mounting** | | | | **Page 10.28** |

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

ServicePLUS see page 10.29

## J2 backplane (3 U)

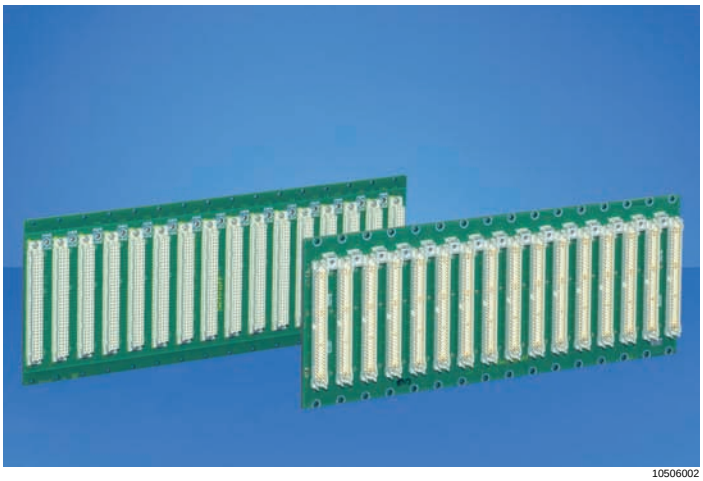

10506002

Photo shows 23001-046

- In accordance with ANSI/VITA 1-1994 VME64 standard
- 3 U with J2 plane
- Termination passive
- Outstanding high-frequency noise suppression and very high MTBF values due to ceramic capacitors
- Multiple backplanes can be placed side by side without loss of slot space
- Connection or isolation between the digital GND and chassis GND can be effected via the screw fittings (see photo)
- Supply voltages can be provided via powerbugs (ring tag M4) or FASTONs (see photo)

### Delivery comprises

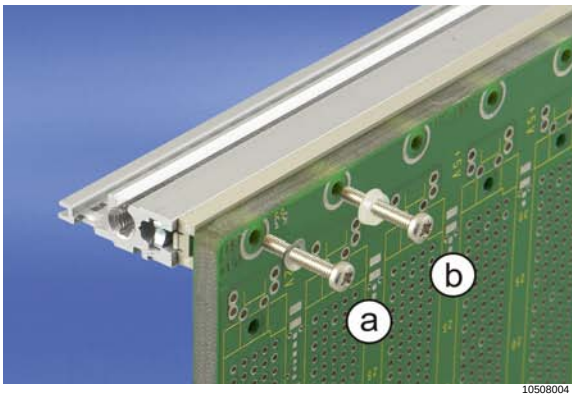
| Item | Qty | Description |
|---|---|---|
| 1 | 1 | VME J2 backplane |
| 2 | 1 | Set of 6 M4 bolts, with lock washer; for power connection |

### Order Information

| Number of slots | Width mm | Height U | Part no. |
|---|---|---|---|
| 2 | 40.4 | 3 | 23001-032 |
| 3 | 59.7 | 3 | 23001-033 |
| 4 | 79.8 | 3 | 23001-034 |
| 5 | 100.2 | 3 | 23001-035 |
| 10 | 199.2 | 3 | 23001-040 |
| 16 | 321.3 | 3 | 23001-046 |
| 21 | 425.3 | 3 | 23001-051 |

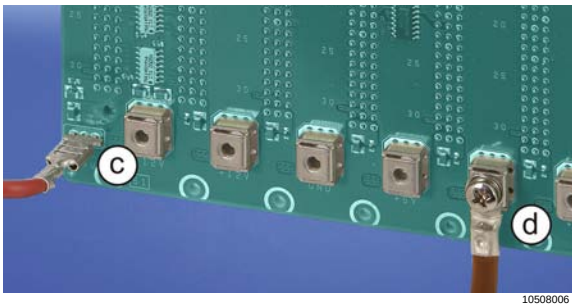
**Accessories**

| | |
|---|---|
| **Screws, washers for backplane mounting** | **Page 10.28** |



10508004

Backplane mounting: a: conductive, b: isolated



10508006

Supply voltage feed:
c: cable with blade receptacle pushed onto FASTON
d: cable with ring tag screwed to powerbug, with M4 screw and lock washer

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

ServicePLUS see page 10.29

## Power backplane with P47 connector



11902001



11901002

- In accordance with
  - PICMG 2.9 R1.0 System Management Bus Specification
  - PICMG 2.11 R1.0 CompactPCI Power Interface Specification
- Can be switched in parallel, PSU status signals FAL# and DEG# can be read separately
- Geographical address adjustable
- Mains supply via crimp contacts insertable into plug, no mains voltage on the backplane

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Power backplane with 1 or 2 P 47 connectors |
| 2 | 1/2 | AC cable harness (P47 connector – open end, length 500 mm; 2 pieces at 2 P47 pin positions |
| 3 | 1 | Blade receptacle kit for AC cable harness |

### Order Information

| Number of slots | Width mm | Height U | Description | Part no. |
|---|---|---|---|---|
| 1 | 39.6 | 3 | 1 connector position P47 | 23098-105 |
| 2 | 80.3 | 3 | 2 connector positions P47 (side-by-side) | 23098-115 |
| 1 | 39.6 | 6 | 1 connector position P47 at top | 23098-116 |
| 1 | 39.6 | 6 | 2 connector positions P47 (one above the other) | 23098-117 |
| **Accessories** | | | | |
| **Screws, washers for backplane mounting** | | | | **Page 10.28** |

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

MEMBER VITA
Open Standards, Open Markets

ServicePLUS see page 10.29

## Power piggyback



12401002

- Allows connection of pluggable power supplies, e.g. ATX PSUs, to CompactPCI backplanes
- Simply mounts on the PSU screw connections on the rear of Schroff CompactPCI backplanes

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Power piggyback |

### Order Information

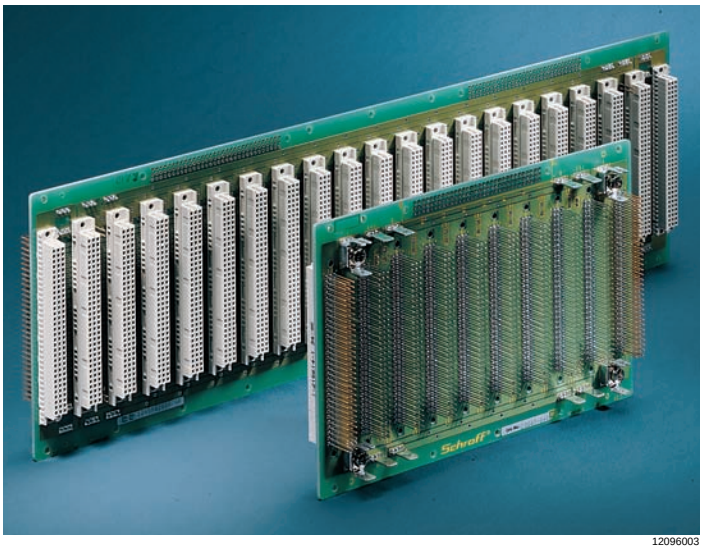
| Description | Qty/PU | Part no. |
|---|---|---|
| Power piggyback | 1 | 23098-100 |

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.



Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

## Universal backplanes




12096003

Universal backplanes with through-connected signal lines, 10 and 21 slot



12006001

Universal backplanes without through-connected signal lines, 21 slots

ServicePLUS see page 10.29

### With through-connected signal lines

- Power supply at each connector position (row 1 + 32)
- Adaptation fields for power connections on 2-layer backplanes
- Two versions:
  - 60 signal lines, through-connected from connector to connector (C64), row „b“ can be freely wired (2 layers with C96 connector), wire-wrap
  - 90 signal lines, through-connected from connector to connector

### Without through-connected signal lines

- Individual wiring of connectors is possible since signal lines are not through-connected
- Power supply at each connector position (row 1 + 32)
- Adaptation fields for connections

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Universal backplane |
| 2 | 10 | Bridges, grid 5.08 mm |
| 3 | 3 | Jumpers |
| 4 | 1 | 10-pin header |

### Order Information

**with through-connected signal lines**

| Number of slots | Slot pitch HP | Width HP | No. of layers | Connector type | No. of signal lines | Part no. |
|---|---|---|---|---|---|---|
| 10 | 4 | 42 | 2 | C64F | 60 | 23007-010 |
| 10 | 4 | 42 | 2 | C96F | 60 | 23007-040 |
| 10 | 4 | 42 | 4 | C96F | 90 | 23007-410 |
| 14 | 3 | 42 | 2 | C64F | 60 | 23007-114 |
| 21 | 4 | 84 | 2 | C64F | 60 | 23007-021 |
| 21 | 4 | 84 | 2 | C96F | 60 | 23007-051 |
| 21 | 4 | 84 | 2 | – | 60 | 23007-081 |
| 21 | 4 | 84 | 4 | C96F | 90 | 23007-421 |
| 28 | 3 | 84 | 2 | C64F | 60 | 23007-128 |
| 28 | 3 | 84 | 2 | C96F | 60 | 23007-158 |
| 28 | 3 | 84 | 2 | – | 60 | 23007-188 |

Connector "-": not equipped, 96 solder points

### Order Information

**without through-connected signal lines**

| Number of slots | Slot pitch HP | Width HP | No. of layers | Part no. |
|---|---|---|---|---|
| 21 | 4 | 84 | 2 | 23007-222 |
| **Accessories** | | | | |
| **Screws, washers for backplane mounting** | | | | **Page 10.28** |

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## Test adaptors, type B

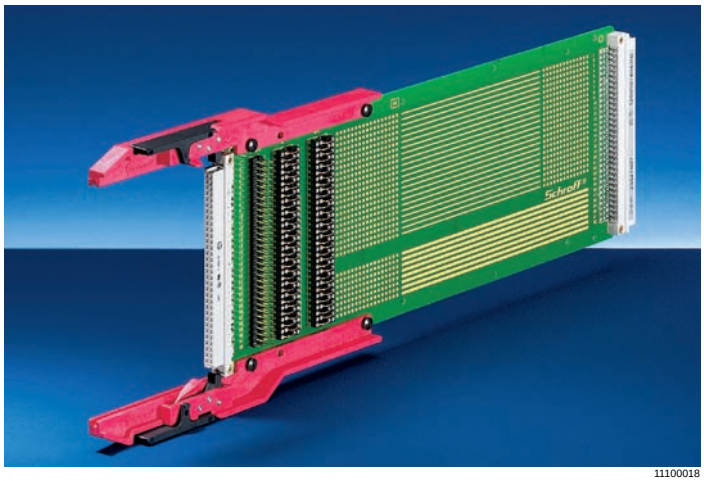
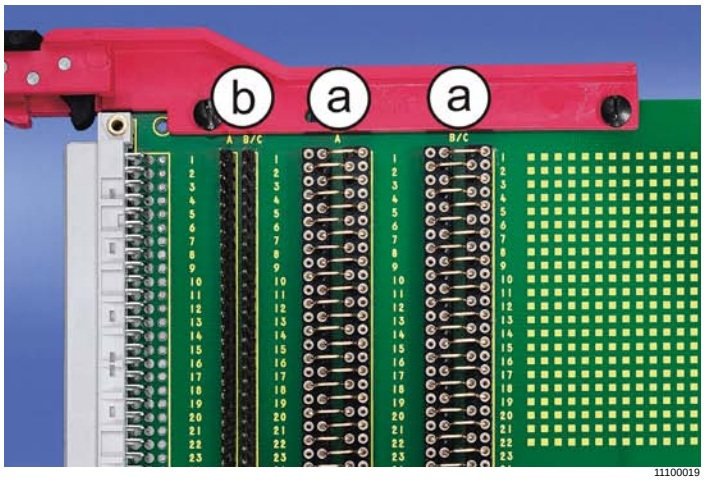



Photo shows 23021-607




a: Measuring field for current and voltage measurement
b: Header for wire wrap

ServicePLUS see page 10.29

- For DIN 41612 connectors, type B
- Measuring field for current and voltage measurement (U/I), (a)
- Header with pin diameter 0.6 mm for wire wrap (b)
- Outer pin rows (pin 1a, c and pin 32a, c) with wider tracks for power supply (2 A per track)

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Test adaptor with fitted guide rails and equipped test bridges |
| 2 | 10 | Replacement test bridges |

### Order Information

| Connector type | Height U | For board depth mm | Backplane type | Measuring field for | Part no. |
|---|---|---|---|---|---|
| B64 | 3 | 160 | 1L | U / I | 23021-607 |
| B64 | 3 | 220 | 1L | U / I | 23021-651 |

### Note

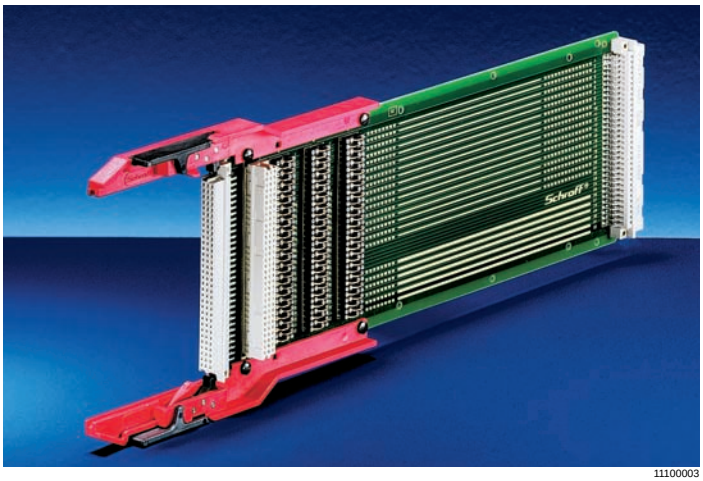
- Detailed dimensions and test adaptor types see page 10.28
- 6/9 U test adaptors see page 10.26

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.



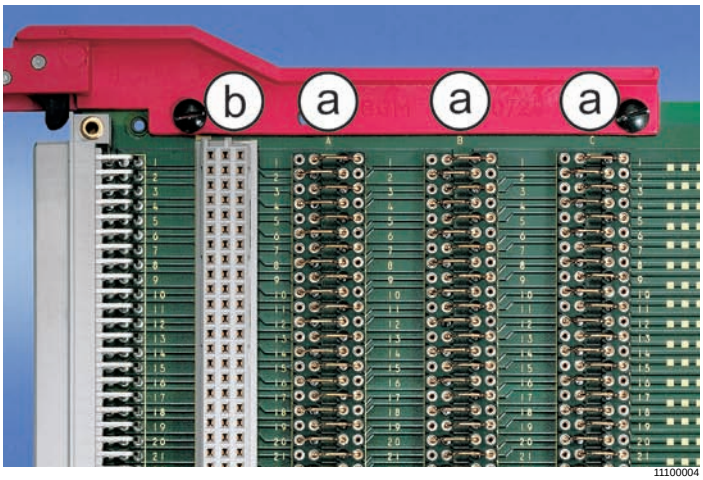
Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

## Test adaptors, type C




11100003

Photo shows 23021-609




11100004

a: Measuring field for current and voltage measurement
b: Connector position for a second test object

ServicePLUS see page 10.29

- For DIN 41612 connectors, type C
- 2 different measuring fields:
  – current and voltage measurement (U/I): pluggable test bridges
  – voltage measurement (U): soldered test bridges
- Connector type C64:
  Header with pin diameter 0.6 mm for wire wrap
- Connector type C96:
  Slot for second test unit or terminator board (b)
- Outer pin rows (C96: pin 1a, b, c and pin 32a, b, c; C64: pin 1a, c and pin 32a, c) with wider tracks for power supply (2 A per track)

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Test adaptor with fitted guide rails and equipped test bridges |
| 2 | 10 | Replacement test bridges |

### Order Information

| Connector type | Height | For board depth | Backplane type | Measuring field for | Part no. |
|---|---|---|---|---|---|
| | U | mm | | | |
| C 64 | 3 | 160 | 1L | U / I | 23021-608 |
| C 64 | 3 | 220 | 2L | U / I | 23021-652 |
| C 64 | 6 | 160 | 1L | U / I | 23022-601 |
| C 96 | 3 | 160 | 2L | U | 23021-603 |
| C 96 | 3 | 160 | 2L | U / I | 23021-609 |
| C 96 | 3 | 160 | 4L | U / I | 23021-610 |
| C 96 | 3 | 220 | 2L | U / I | 23021-653 |
| C 96 | 3 | 220 | 4L | U / I | 23021-654 |
| C 96 | 3 | 280 | 2L | U / I | 23021-700 |
| C 96 | 3 | 280 | 4L | U / I | 23021-701 |
| C 96 | 3 | 340 | 4L | U / I | 23021-750 |
| C 96 | 6 | 160 | 2L | U / I | 23022-602 |
| C 96 | 6 | 160 | 4L | U / I | 23022-603 |
| C 96 | 6 | 220 | 2L | U / I | 23022-652 |
| C 96 | 6 | 280 | 2L | U / I | 23022-700 |

### Note

- Detailed dimensions and test adaptor types see page 10.28
- 6/9 U test adaptors see page 10.26

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## Test adaptors, type D

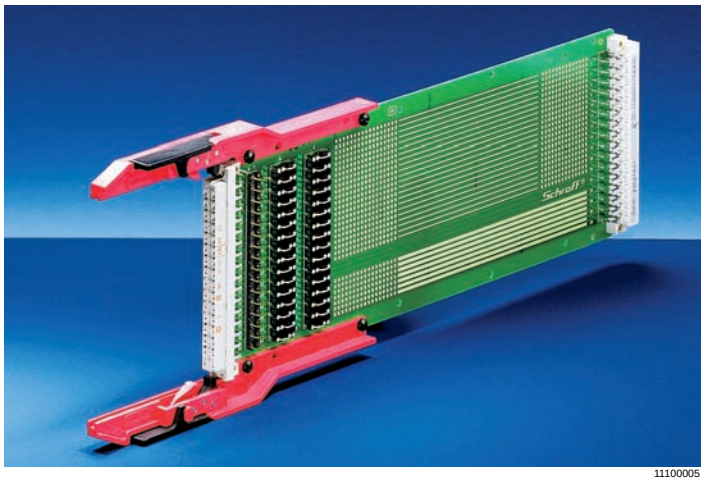
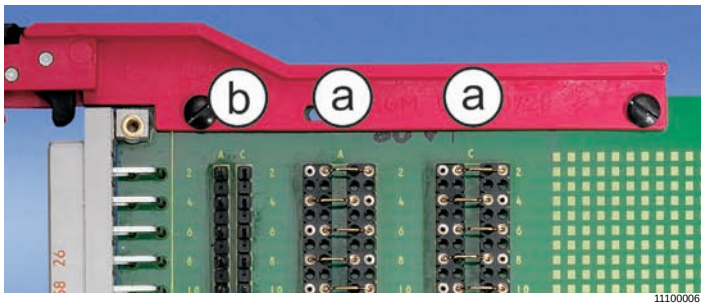



Photo shows 23021-611




a: Measuring field for current and voltage measurement
b: Header for wire wrap

- For DIN 41612 connectors, type D
- 2 different measuring fields:
  – current and voltage measurement (U/I): pluggable test bridges
  – voltage measurement (U): soldered test bridges
- Header with pin diameter 0.6 mm for wire wrap (b)
- Outer pin rows (pin 1a, c and pin 16a, c) with wider tracks for power supply (2 A per track)

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Test adaptor with fitted guide rails and equipped test bridges |
| 2 | 10 | Replacement test bridges |

### Order Information

| Connector type | Height U | For board depth mm | Backplane type | Measuring field for | Part no. |
|---|---|---|---|---|---|
| D32 | 3 | 160 | 1L | U / I | 23021-611 |
| D32 | 3 | 160 | 1L | U | 23021-604 |
| D32 | 3 | 220 | 1L | U / I | 23021-655 |

### Note

- Test adaptor type D cannot be used in combination with the adapter of other types
- Detailed dimensions and test adaptor types see page 10.28

## Test adaptors, type E

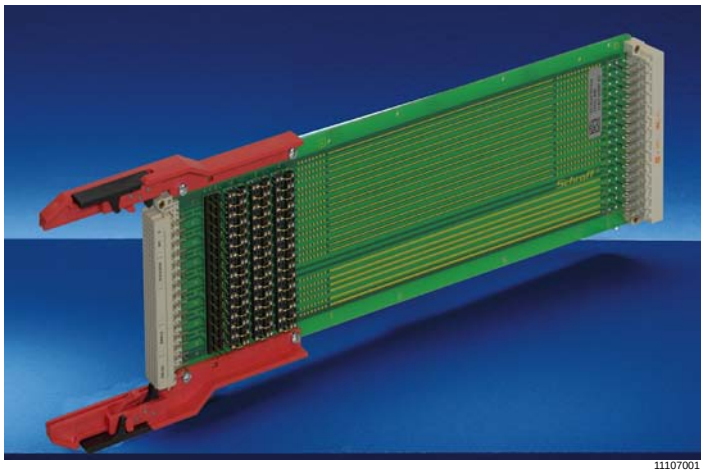
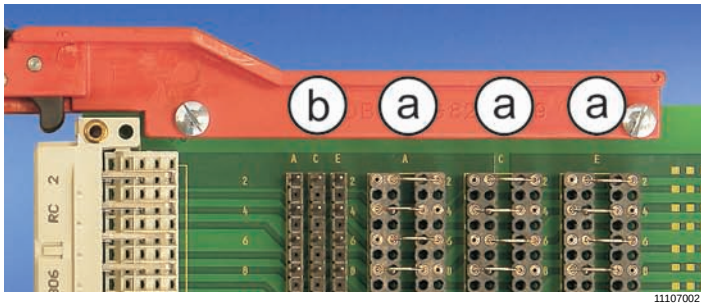



Photo shows 23021-656




a: Measuring field for current and voltage measurement
b: Header for wire wrap

- For DIN 41612 connectors, type E
- Measuring field for current and voltage measurement (U/I), (a)
- Header with pin diameter 0.6 mm for wire wrap (b)
- Outer pin rows (pin 1a, c, e and pin 31a, c, e) with wider tracks for power supply (2 A per track)

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Test adaptor with fitted guide rails and equipped test bridges |
| 2 | 10 | Replacement test bridges |

### Order Information

| Connector type | Height U | For board depth mm | Backplane type | Measuring field for | Part no. |
|---|---|---|---|---|---|
| E48 | 3 | 220 | 2L | U / I | 23021-656 |

### Note

- Detailed dimensions and test adaptor types see page 10.28
- 6/9 U test adaptors see page 10.26

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## Test adaptors, type F

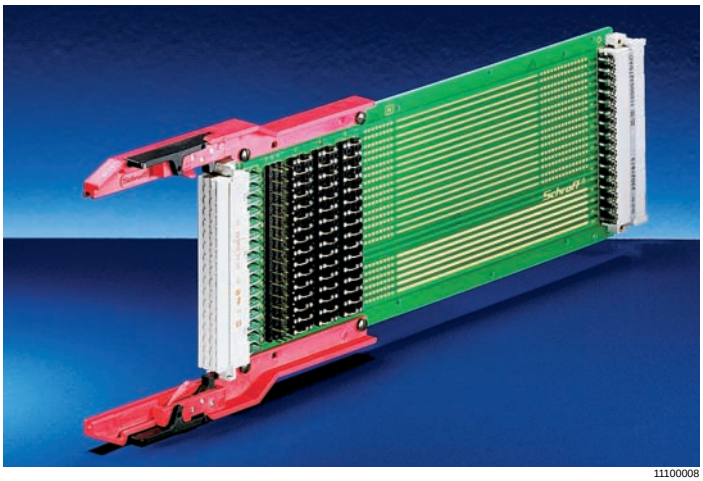
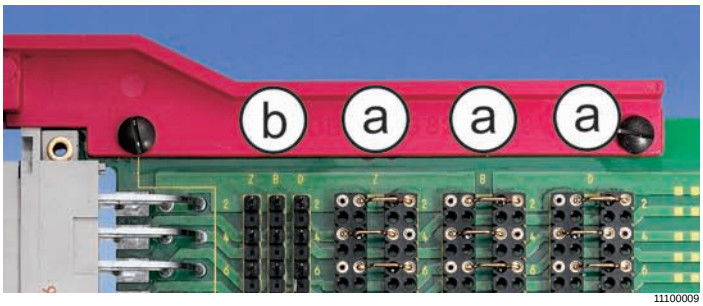



Photo shows 23021-613




a: Measuring field for current and voltage measurement
b: Header for wire wrap

- For DIN 41612 connectors, type F
- 2 different measuring fields:
  – current and voltage measurement (U/I): pluggable test bridges
  – voltage measurement (V): soldered test bridges
- Header with pin diameter 0.6 mm for wire wrap (b)
- Outer pin rows (pin 1a, c, e and pin 16a, c, e) with wider tracks for power supply (2 A per track)

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Test adaptor with fitted guide rails and equipped test bridges |
| 2 | 10 | Replacement bridges |

### Order Information

| Connector type | Height U | For board depth mm | Backplane type | Measuring field for | Part no. |
|---|---|---|---|---|---|
| F48 | 3 | 160 | 2L | U | 23021-605 |
| F48 | 3 | 160 | 2L | U / I | 23021-613 |
| F48 | 6 | 160 | 2L | U / I | 23022-604 |
| F48 | 3 | 220 | 2L | U / I | 23021-657 |

### Note

- Detailed dimensions and test adaptor types see page 10.28
- Further 6/9 U test adaptors see page 10.26

## Test adaptors, type M

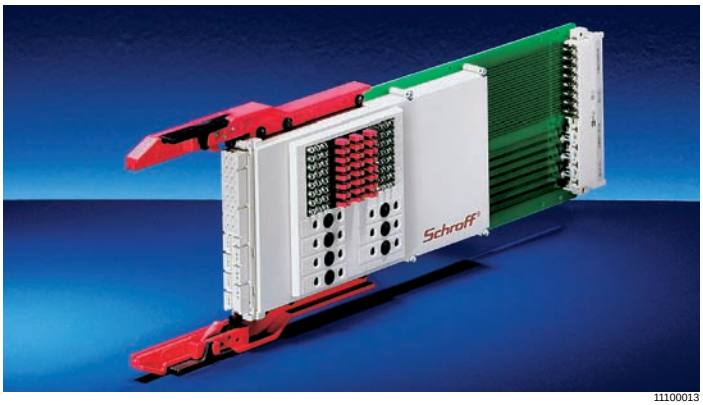
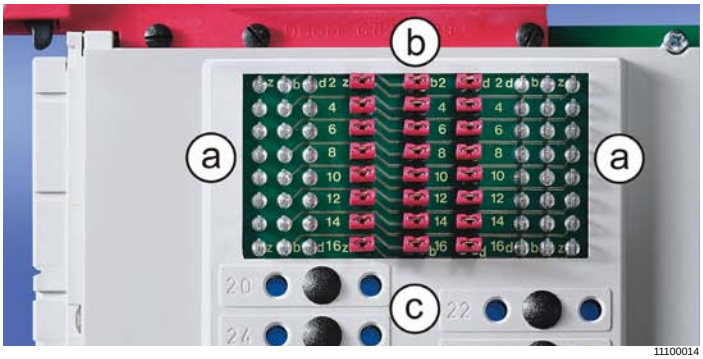



Photo shows 23021-616




Test adaptor M (F24/H7), a: Measurement lugs,
b: Measuring pin with jumper, c: Test bridge, diameter 4 mm

- For DIN 41612 connectors, type M
- 2 versions:
  - M (F/H): with high-current contacts (H)
  - M (C/coax): with coaxial connector contact
- Measuring field versions for current and voltage measurement (U/I):
  – M (F/H):
  F: measurement lugs (a) and measurement pins (b) with jumpers
  H: test bridges (c) (diameter 4 mm)
  – M (C/coax):
  C: test bridges pluggable, header with pin diameter 0.6 mm for wire wrap

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Test adaptor with fitted guide rails and equipped test bridges |
| 2 | 10 | Replacement test bridges |

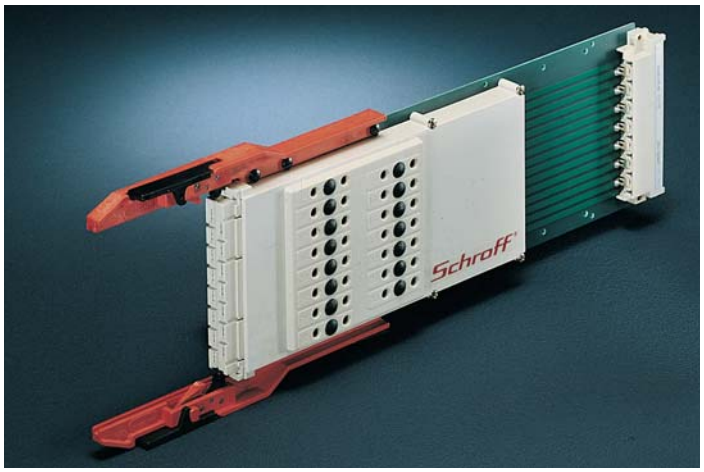
### Order Information

| Connector type | Height U | For board depth mm | Backplane type | Measuring field for | Part no. |
|---|---|---|---|---|---|
| M (F24/H7) | 3 | 160 | 2L | U / I | 23021-616 |
| M (F24/H7) | 3 | 220 | 2L | U / I | 23021-660 |

### Note

- Detailed dimensions and test adaptor types see page 10.28

## Test adaptors, type H




11193001

Photo shows 23021-621

- For DIN 41612 connectors, type H
- 2 different measuring field versions:
  – voltage and current (U/I): pluggable test bridges (diameter 4 mm) (a)
  – for voltage (V): test sockets (diameter 4 mm)

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Test adaptor with fitted guide rails and equipped test bridges |

### Order Information

| Connector type | Height U | For board depth mm | Backplane type | Measuring field for | Part no. |
|---|---|---|---|---|---|

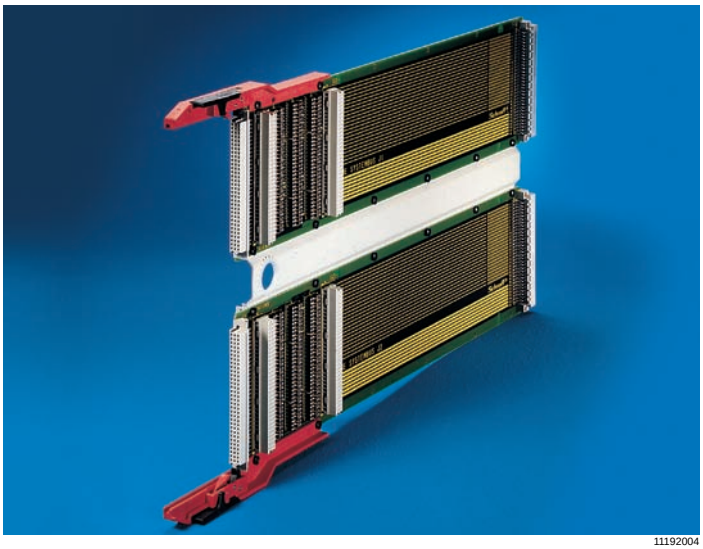
Phase-out product(s)

11100012

a: Test bridge 4 mm b: Test socket 4 mm

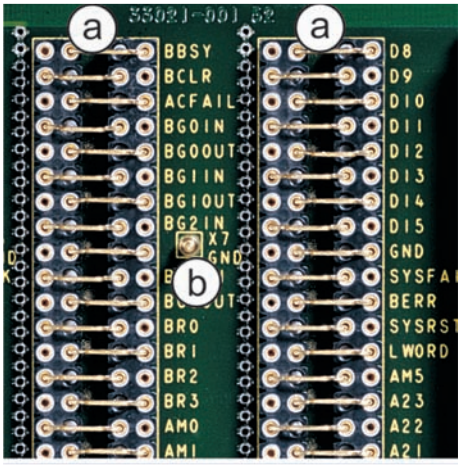
ServicePLUS see page 10.29

## Test adaptors for VMEbus



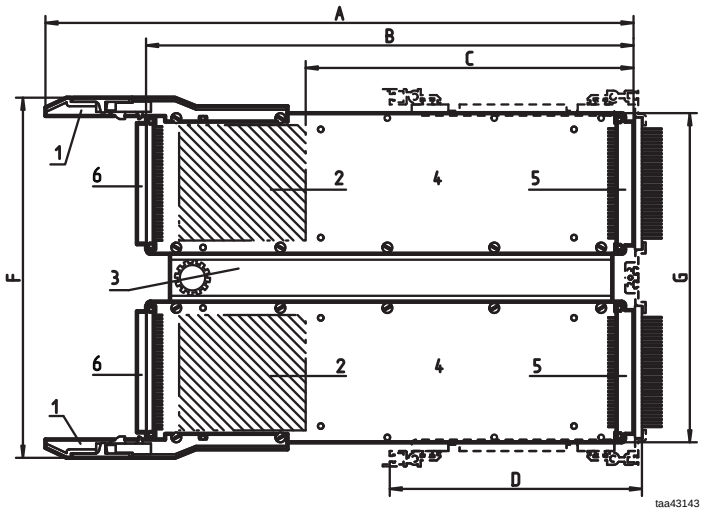
11192004

Photo shows 6 U test adaptor




11196001

a: Measuring field for current and voltage measurement
b: Measuring pin, e.g. for test prod




taa43143

Dimensional drawing of test adaptor

ServicePLUS see page 10.29

- Layout of conductive tracks and layer build-up match the requirements of the VME bus
- Measuring field version for current and voltage measurement (V/I), (a)
- Additional measuring pins, e.g. for the probe tips of an oscilloscope (b)
- 1 pin position for second test object, 1 pin position for terminator board
- Voltage supply lines are designed for 2 A
- 6 U test adaptors consist of two 3 U test adaptors linked via an intermediate adaptor

### Delivery comprises

| Item | Qty | Description |
|---|---|---|
| 1 | 1 | Test adaptor with fitted guide rails and equipped test bridges |
| 2 | 10 | Replacement test bridges |

### Order Information

| Height | For board depth | Connector type | | Part no. |
|---|---|---|---|---|
| U | mm | P1 | P2 | |
| 3 | 160 | C96 | – | 23021-001 |
| 3 | 160 | – | C96 | 23021-100 |
| 3 | 220 | C96 | – | 23021-002 |
| 3 | 220 | – | C64 | 23021-103 |
| 3 | 220 | – | C96 | 23021-101 |
| 6 | 160 | C96 | C96 | 23022-002 |
| 6 | 220 | C96 | C96 | 23022-004 |
| 6 | 280 | C96 | C96 | 23022-010 |

P1 = system bus, P2 = I/O bus

### Note

- 9 U test adaptor see page 10.26

### Dimensions table VMEbus test adaptors

| Board height | F (mm) | G (mm) |
|---|---|---|
| 3 U | 123.65 | 100 |
| 6 U | 257 | 233.35 |

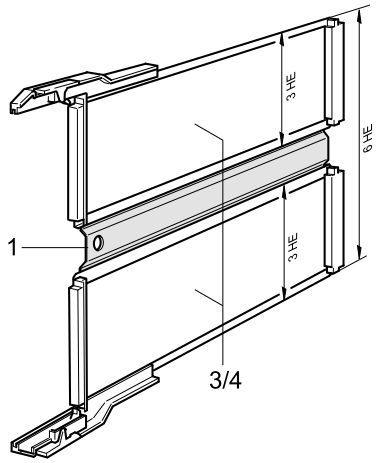
| For board depth | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|
| 160 mm | 423 | 350 | 237 | 175.24 |
| 220 mm | 483 | 410 | 297 | 235.24 |
| 280 mm | 543 | 470 | 417 | 355.24 |

A = overall length, B = extension

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

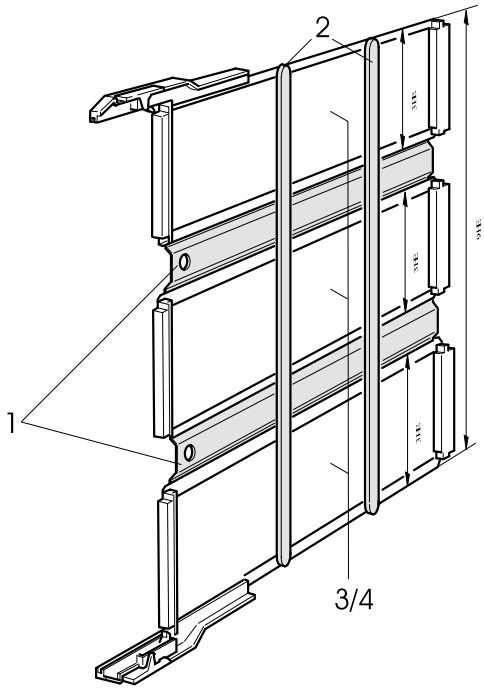
## 6/9 U test adaptors

6 U




A4-2550

9 U




BPTE6567

- Suitable for types B, C, D, E, F
- 6 U test adaptor can be made from:
  - 2 × equal length 3 U test adaptors (3/4)
  - 1 × intermediate adaptor 6 U (1)
  - or
  - 1 × 3 U test adaptor (3/4)
  - 1 × bare board (item 2 without connector)
  - 1 × intermediate adaptor 6 U (1)
- 9 U test adaptor can be made from:
  - 3 × equal length 3 U test adaptors (3/4)
  - 2 × intermediate adaptor 9 U (1)
  - or
  - 2 × 3 U test adaptors (3/4)
  - 1 × bare board (item 2 without connector)
  - 2 × intermediate adaptor 9 U (1)
  - or other combinations
  - test adaptor item 4, type x
  - bare board: item 3

### Delivery comprises (kit)

| Item | Qty 6 U | Qty 9 U | Description |
|---|---|---|---|
| 1 | 1 | 2 | Intermediate adaptor, St, 1.5 mm, grey, incl. assembly kit |
| 2 | – | 2 | Board stiffener |

### Order Information

| Description | For board depth mm | For test adaptor depth (dimension B) mm | Part no. |
|---|---|---|---|
| 6 U | 160 | 290 | 20800-224 |
| 6 U | 220 | 350 | 20800-168 |
| 6 U | 280 | 410 | 20800-278 |
| 6 U | 340 | 470 | 20800-279 |
| 9 U | 220 | 350 | 23040-001 |
| **Accessories** | | | |
| **Bare board** (item 2) 3 U, 160 mm deep without connector, 1 piece | | | 23040-006 |
| **Bare board** (item 2) 3 U, 220 mm deep without connector, 1 piece | | | 23040-007 |

### Note

- Test adaptor type D cannot be combined with other types
- Test adaptor depth (dimension B) of VMEbus test adaptors see page 10.25
- Test adaptor depth (dimension B) at type B, C, D, E, F, see page 10.28

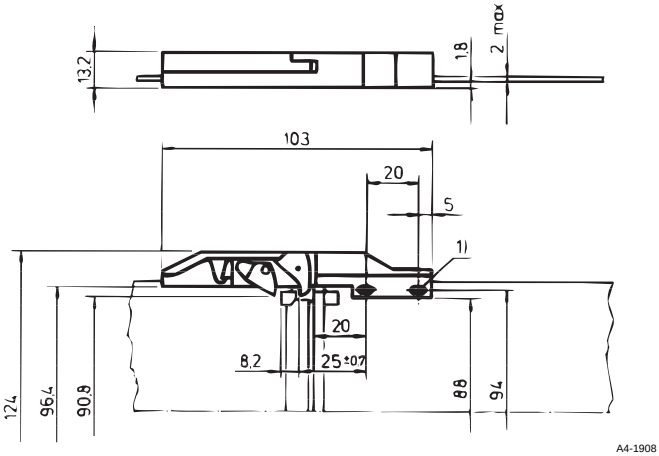
**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

## Board guides



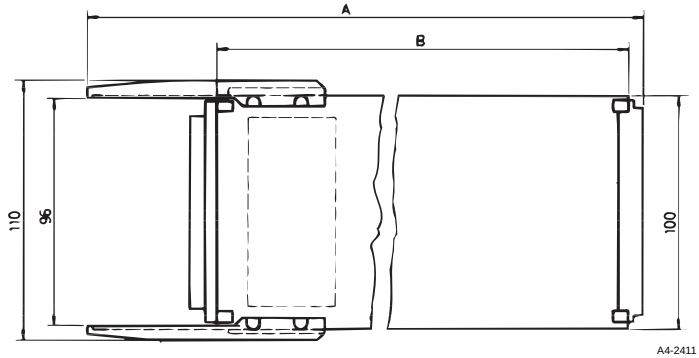
11192009

Top: with locking lever, left short, right long;
bottom: without locking lever, left short, right long



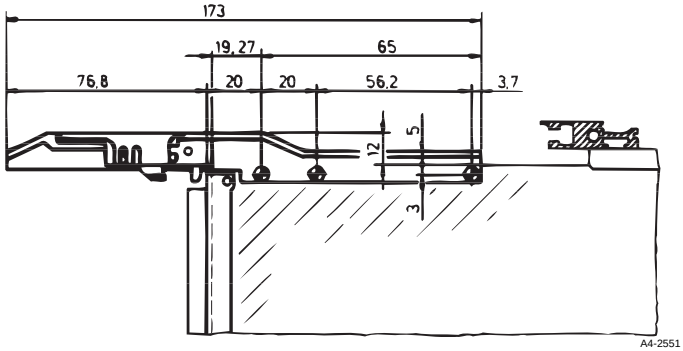

A4-1908

Short board guide




A4-2411

Short board guide without locking lever
A, B, see "Dimensions test adaptors"




A4-2551

Long board guide without locking lever

- To hold and lock modules that have to be tested (for replacement purposes only, board guides are included in delivery of all test adaptors)
- Versions
  - Short board guide with/without locking lever
  - Long board guide with/without locking lever

### Order Information

| Description | Qty/PU | Part no. |
|---|---|---|
| Type: short, with locking lever | 2 | 60800-834 |
| Type: short, without locking lever | 1 | 60800-032 |
| Type: long, with locking lever | 2 | 20800-212 |
| Type: long, without locking lever | 2 | 20800-213 |

**For further information www.schroff.biz/oneclick**
oneClick search code = Part no.

# Test adapters

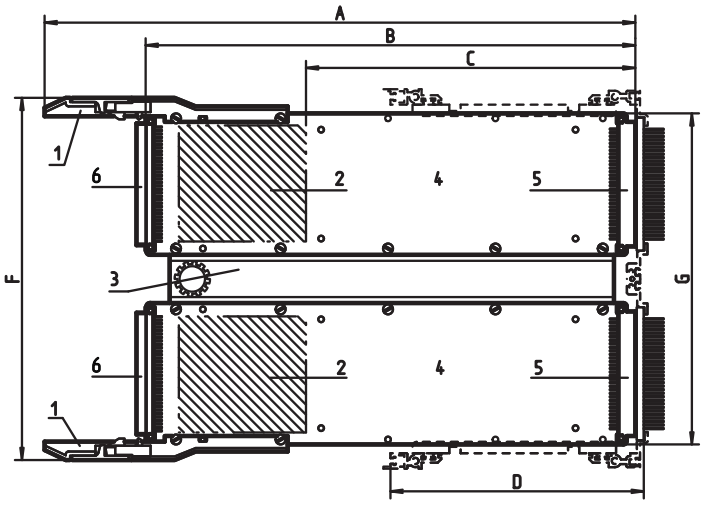
## Types/board versions

Epoxy fibreglass EP-GC02 to DIN 40802 (FR4).
Outlying connections (e.g. pins 1a, b, c and pins 32a, b, c) each have a wider PCB track or large-surface tracks on inner layers – e.g. for shielding, $V_{CC}$, GND.

| Type | |
|---|---|
| **1L** | PCB single-sided, laminated (suitable for up to 2 MHz) |
| **2L** | PCB, double-sided, laminated and through-connected (suitable for up to approx. 8 MHz) |
| **4L** | Multi-layer, 4-layer (suitable for above 8 MHz):<br>Multi-layer technology with large-area inner layers (signal–surface–surface–signal).<br>In the coax version the large-area inner layers can be soldered to the desired pins by means of power links. |

## Dimensions test adaptors

■ Types B, C, E, F, H and M



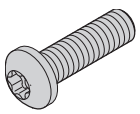
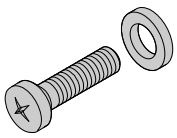

taa43143

| Board height | F<br>mm | G<br>mm |
|---|---|---|
| 3 U | 123.00 | 100.00 |
| 6 U | 257.00 | 233.35 |

| Board depth | A<br>mm | B<br>mm | C<br>mm | D<br>mm |
|---|---|---|---|---|
| 160 mm | 363 | 290 | 190 | 175.24 |
| 220 mm | 423 | 350 | 250 | 235.24 |
| 280 mm | 483 | 410 | 310 | 355.24 |
| 340 mm | 543 | 470 | 370 | 415.24 |

1) Board guide
2) Measuring field
3) Mounting bracket with extraction aid
4) Test adaptor
5) Male connector
6) Female connector

## Panhead screws

| | Description | Application | Material | Dimension | Qty/PU | Part no. |
|---|---|---|---|---|---|---|
|  aza45940 | Torx panhead screw | For backplane fixing | St, nickel-plated | M2.5 x 12 | 100 | 24560-161 |
| | | For backplane fixing | St, nickel-plated | M2.5 x 14 | 100 | 24560-162 |
| | | For backplane fixing | St, nickel-plated | M2.5 x 16 | 100 | 24560-163 |
|  06702051 | Screw + securing washer | For backplane fixing | St, nickel-plated | M2.5 x 12 | 100 | 21100-777 |



Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

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## modification — Small changes. Large impact.

**Small design alterations to off-the-shelf products**

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- Conformal coating

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