BUCCANEER FOR DATA
4000 Series - C-Type USB Buccaneer
Sealed C-Type USB Cables

- IP66, IP68 and IP69K rated
- USB3.2 supported
- Plug and play capability
- Shielded system
- Secure, proven locking system
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- Data rates up to 20 Gbps
- Tamperproof Construction
- Colour coded O-rings & washers for easy identification purposes
4000 Series - C-Type USB Buccaneer
Sealed C-Type USB Cables

**Sealed 'C' type to Standard 'C'**
- Sealed Plug USB 'C' to Standard Plug USB 'C'
- Available in 1, 2, 3 & 5m lengths
- Plug variant mates with PXP4043/C
- USB3.2 Supported

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PXP4041/C/C/1M00</td>
<td>1.0m</td>
<td>IP-sealed ‘C’ type to Standard ‘C’ type USB</td>
</tr>
<tr>
<td>PXP4041/C/C/2M00</td>
<td>2.0m</td>
<td>IP-sealed ‘C’ type to Standard ‘C’ type USB</td>
</tr>
<tr>
<td>PXP4041/C/C/3M00</td>
<td>3.0m</td>
<td>IP-sealed ‘C’ type to Standard ‘C’ type USB</td>
</tr>
<tr>
<td>PXP4041/C/C/5M00</td>
<td>5.0m</td>
<td>IP-sealed ‘C’ type to Standard ‘C’ type USB</td>
</tr>
</tbody>
</table>

**Sealed 'C' type to Standard 'A'**
- Sealed Plug USB 'C' to Standard Plug USB 'A'
- Available in 1, 2, 3 & 5m lengths
- Plug variant mates with PXP4043/C
- USB3.2 Supported

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PXP4040/C/A/1M00</td>
<td>1.0m</td>
<td>IP-sealed ‘C’ type to Standard ‘A’ type USB</td>
</tr>
<tr>
<td>PXP4040/C/A/2M00</td>
<td>2.0m</td>
<td>IP-sealed ‘C’ type to Standard ‘A’ type USB</td>
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<tr>
<td>PXP4040/C/A/3M00</td>
<td>3.0m</td>
<td>IP-sealed ‘C’ type to Standard ‘A’ type USB</td>
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<tr>
<td>PXP4040/C/A/5M00</td>
<td>5.0m</td>
<td>IP-sealed ‘C’ type to Standard ‘A’ type USB</td>
</tr>
</tbody>
</table>

**Rear Panel Mount**
- Sealed Socket USB 'C' Connector
- Loaded with 2x 12 way header
- Socket variant mates with PXP4040/C/A and PXP4041/C/C type cables
- USB3.2 supported

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PXP4043/C</td>
<td>IP-sealed ‘C’ type USB, rear panel mounted, 2x 12 way header connector at rear</td>
</tr>
</tbody>
</table>

**Sealing Caps**
- Sealing caps to maintain IP rating when connectors are not in use

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PXP4081</td>
<td>Sealing cap for use with PXP4040/C/A and PXP4041/C/C</td>
</tr>
<tr>
<td>PXP4083</td>
<td>Sealing cap for use with PXP4043/C</td>
</tr>
</tbody>
</table>

**O-ring & washer pack**

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PXP4089/YL</td>
<td>Yellow coloured O-ring and washer pack</td>
</tr>
<tr>
<td>PXP4089/BL</td>
<td>Blue coloured O-ring and washer pack</td>
</tr>
<tr>
<td>PXP4089/RD</td>
<td>Red coloured O-ring and washer pack</td>
</tr>
<tr>
<td>PXP4089/WH</td>
<td>White coloured O-ring and washer pack</td>
</tr>
<tr>
<td>PXP4089/GN</td>
<td>Green coloured O-ring and washer pack</td>
</tr>
</tbody>
</table>
**BUCCANEER FOR DATA**

**4000 Series - C-Type USB Buccaneer**

Sealed C-Type USB Cables

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### Cables & Connectors

#### Mechanical

Sealing
- IP69K, DIN40050-9
- (10m depth for 2 weeks)

Panel Mount Nut
- 1.0 - 1.1Nm (91lb.in)

Operating temperature
- -40°C to +80°C

Salt Mist
- EN60068-2-52 Test Kb Salt Mist
- (Cyclic) Marine Severity Level 1

#### Electrical

No. of Contacts
- 2x12 way

Current rating
- 5A

Voltage rating
- ≤ 30V AC

Contact resistance
- 40m Ω max.

USB3.2 Gen 1:
- 5Gbps (2m maximum length)

USB3.2 Gen 2:
- 10Gbps (1m maximum length)

USB3.2 Gen 1x2:
- 10Gbps (2m maximum length)

USB3.2 Gen 2x2:
- 20Gbps (1m maximum length)

Performance
- USB3.2

#### Materials - Re-wireable and Panel Connectors

- Shell material: Stainless Steel
- Shell plating: Nickel
- Contact material: Copper Alloy
- Contact plating: 30 micro inch Gold
- Connector body & locking ring: PC/PBT
- Panel connector: PC/PBT
- Flammability rating: UL94V-0
- ‘O’ rings: Silicone
- Mating cycles: 1,000

#### Materials - Cable

- Cable Jacket: PVC (black)
- Screen: Tinned copper braid
- Flammability: UL94V-0

#### Cable construction - PXP4040/C/A, PXP4041/C/C & PXP4043/C

- Jacket
- Braid
- AL / MYLAR
- MYLAR
- Conductor
- Insulation
- Drain

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BUCCANEER FOR DATA

4000 Series - C-Type USB Buccaneer

<table>
<thead>
<tr>
<th>Wire Colour</th>
<th>Label</th>
<th>Type</th>
<th>Cable Number</th>
<th>PCB Header Plugs P2</th>
<th>PCB Header Plugs P3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>-</td>
<td>Gnd</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>A2</td>
<td>Orange</td>
<td>TxI+</td>
<td>3</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>A3</td>
<td>Brown</td>
<td>TxI-</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>A4</td>
<td>Red</td>
<td>Vbus</td>
<td>11</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>A5</td>
<td>Blue</td>
<td>CC</td>
<td>10</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>A6</td>
<td>White</td>
<td>D0+</td>
<td>5</td>
<td>6</td>
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</tr>
<tr>
<td>A7</td>
<td>Green</td>
<td>D0-</td>
<td>5</td>
<td>7</td>
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<tr>
<td>A8</td>
<td>Orange</td>
<td>SbuA</td>
<td>8</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>A9</td>
<td>Red</td>
<td>Vbus</td>
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<td>9</td>
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<tr>
<td>A10</td>
<td>Blue</td>
<td>Rx2+</td>
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<td>10</td>
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<tr>
<td>A11</td>
<td>Black</td>
<td>Rx2-</td>
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<tr>
<td>A12</td>
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<td>Gnd</td>
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<td>12</td>
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<tr>
<td>B1</td>
<td>-</td>
<td>Gnd</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>B2</td>
<td>White</td>
<td>Tx2+</td>
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<td>-</td>
<td>11</td>
</tr>
<tr>
<td>B3</td>
<td>Red</td>
<td>Tx2-</td>
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<td>-</td>
<td>10</td>
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<tr>
<td>B4</td>
<td>Red</td>
<td>Vbus</td>
<td>11</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>B5</td>
<td>Yellow</td>
<td>Vconn</td>
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<td>-</td>
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<tr>
<td>B6</td>
<td>Purple</td>
<td>DI-</td>
<td>6</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>B7</td>
<td>Grey</td>
<td>DI+</td>
<td>6</td>
<td>-</td>
<td>6</td>
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<tr>
<td>B8</td>
<td>Brown</td>
<td>SbuB</td>
<td>7</td>
<td>-</td>
<td>5</td>
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<tr>
<td>B9</td>
<td>Red</td>
<td>Vbus</td>
<td>11</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>B10</td>
<td>Yellow</td>
<td>RXI-</td>
<td>4</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>B11</td>
<td>Green</td>
<td>RXI+</td>
<td>4</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>B12</td>
<td>-</td>
<td>Gnd</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

Receptacle Plug Colour Key:

A1, A12, B12, B1: Cable Ground
A2, A3, B3, B2: High Speed Path (TX for USB or for DP Alt mode)
A4, A5, B9, B4: Cable Bus Power
A6, A7, B7, B6: USB 2.0 Interface
A8, B8: For Sideband Use (not used for USB)
A5, B5: Plug Configuration Detection (- One becomes Vconn, for cable or adaptor power. - CC is used for USB-PD communication)
A10, A11, B11, B10: High Speed Data Path (RX for USB, or TX for DP Alt Mode)
**Wire Colour** | **Label** | **Type** | **Cable Number** | **USB-3 Plug P2**
--- | --- | --- | --- | ---
A1, B1, A12, B12 | - | Gnd | Braid | - | 4, 7
A4, B4, A9, B9 | Red | Vbus | - | 10, 11 | 1
A5 | - | CC | - | - | -
B5 | - | Vconn | - | - | -
A6 | Green | Dp 1 | (Twisted Pair) | 5 | 3
A7 | White | SSTXp 1 | (Twisted Pair) | 5 | 2
A2 | Blue (Brown Jacket) | SSTXn 1 | (Twisted Pair) | 1 | 6
A3 | White (Brown Jacket) | SSRXp 1 | (Twisted Pair) | 2 | 9
B11 | Blue (Red Jacket) | SSRXn 1 | (Twisted Pair) | 2 | 8
B10 | White (Red Jacket) | Shield | Braid | Screen | -
Shell | - | - | - | - | -

**Wiring Notes:**

1. Cable used has shielded twisted pairs with drain wires used for all SDP’s.
2. Pin A5 (CC) of the USB Type-C Plug shall be connected to Vbus through a 56 KΩ ±5% resistor.
3. Contacts B6 and B7 are not connected in the USB Type-C Plug.
4. All Vbus pins are connected together within the USB Type-C Plug. A Bypass Capacitor is required between the ground pins in the USB Type-C Plug side of the cable. The Bypass Capacitor is 10nF ± 20%. The bypass capacitor shall be as close as possible to the power supply pad.
5. All ground return pins are connected together within the USB Type-C Plug.
6. Shield and Gnd grounds are connected within the USB Type-C and USB 3.1 standard-A plugs on both ends of the cable assembly.
7. All USB Type-C plug pins that are not listed in this table shall be open (not connected).