



Cisco ASR 1001-X Router Specifications

This appendix provides the Cisco ASR 1001-X Router specifications.

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Cisco ASR 1006 Router Specifications

This section lists the specifications for the Cisco ASR 1006 Router.

The following table lists the Cisco ASR 1006 Router physical specifications.

Table 1: Cisco ASR 1006 Router Specifications

| Description | Specification |
|------------------------|---|
| Midplane | Connects the Cisco ASR 1000 Series RP1, Cisco ASR 1000 Series ESP, Cisco ASR 1000 Series SPA Interface (SIP), SPAs, and power supplies together in the system |
| Dimensions (H x W x D) | Height = 10.5 in. (25.4 cm) Width = 17.25 in.(43.815 cm) Depth = 22.50 in. (57.15 cm) |

| Description | Specification |
|-------------------------------|--|
| Weight | <ul style="list-style-type: none"> Fully loaded chassis: 109.1 pounds (49.5 kg) Only chassis: 25 pounds (11.33kg) <p>Note Using the Cisco ASR1000-ESP100 instead of the Cisco ASR1000-ESP40 adds 2.1 lbs to the total weight of the router.</p> |
| Nominal operating temperature | <ul style="list-style-type: none"> 41° to 104° F 5° to 40° C |
| Nominal operating humidity | 10% to 85% |
| Storage temperature | <ul style="list-style-type: none"> -38° to 150° F -40° to 70° C |
| Power consumption | <ul style="list-style-type: none"> Maximum DC: 1700W Maximum AC: 1600W Maximum (Out): 1275W |

Cisco ASR 1006 Router Memory and Storage Options

Table 2: Memory and Storage Options for Cisco ASR 1006 Router

| Memory Type | Default | Maximum System Support |
|-------------|---|---|
| RP1 | 2 GB DRAM | 4 GBDRAM |
| eUSB | 1 GB (Partitioned: 2x32MB for NVRAM and the remaining for mass storage) | Hard disk drive 40 GB for code storage or solid-state drive 32 GB support |

Cisco ASR 1006 Router Ethernet RJ-45 Port Pinouts

The Cisco ASR 1006 Router has an RJ-45 port for the 10/100/1000 Ethernet connection. The RJ-45 port supports IEEE 802.3ab (Gigabit Ethernet) and IEEE 802.3u (Fast Ethernet) interfaces compliant with 10BASET, 100BASETX, and 1000BASET specifications.

The RJ-45 port supports standard straight-through and crossover Category 5 UTP cables with RJ-45 connectors. Cisco does not supply Category 5 UTP cables; these cables are available commercially.

The following table shows an RJ-45 port and connector.

| | | | |
|---|-----------------|---|---|
| 1 | RJ-45 connector | — | — |
|---|-----------------|---|---|

Cisco ASR 1006 Router MGMT Ethernet Port Pinouts

Table 3: RJ-45 Management Ethernet Port Pinouts

| Pin | Signal | Direction | Description |
|------|----------|-----------|---------------|
| 1 | TX Data+ | Out | Transmit Data |
| 2 | TX Data- | Out | Transmit Data |
| 3 | RX Data+ | In | Receive Data |
| 4, 5 | NC | — | — |
| 6 | RX Data- | In | Receive Data |
| 7,8 | NC | — | — |

Cisco ASR 1006 Router BITS Port Signals and Pinouts

Table 4: BITS RJ-45 Receptacle Pinouts for Cisco ASR1000-RP1

| Pin | Signal | Direction | Description |
|------|---------|-----------|-----------------|
| 1 | RX Ring | Input | Receive Ring |
| 2 | RX | Input | Receive (T1/E1) |
| 3, 4 | N/C | — | — |
| 5 | TX Ring | Unused | — |
| 6 | TX | Unused | — |
| 7,8 | N/C | — | — |

Table 5: BITS RJ-45 Receptacle Pinouts for Cisco ASR1000-RP2

| Pin | Signal | Direction | Description |
|------|---------|----------------|--|
| 1 | RX Ring | Input/Bi (DTI) | Receive Ring/Bidirectional DTI |
| 2 | RX TIP | Input/Bi (DTI) | Receive TIP (T1/E1) Bidirectional DTI |
| 3, 4 | N/C | — | — |
| 5 | TX Ring | Output | Transmit Ring/Bidirectional DTI |
| 6 | TX | Output | Transmit TIP (T1/E1) Bidirectional DTI |
| 7,8 | N/C | — | — |

Cisco ASR 1006 Router Console Port Signals and Pinouts

Table 6: Console Port Pinouts for Cisco ASR 1006 Router

| Pin | Signal | Direction | Description |
|-----|--------|-----------|--------------------------------------|
| 1 | RTS | Out | Request to Send (tied to pin 8, CTS) |
| 2 | DTR | Out | Data Terminal Ready (always On) |
| 3 | TXD | Out | Transmit Data |
| 4 | GND | — | Ring Indicator |
| 5 | GND | — | — |
| 6 | RXD | In | Receive Data |
| 7 | DSR | In | Data Terminal Ready |
| 8 | CTS | In | Clear to Send (tied to pin 1, RTS) |

Cisco ASR 1006 Router Auxiliary Port Signals and Pinouts

Table 7: Auxiliary Port Pinouts for Cisco ASR 1006 Router

| Pin | Signal | Direction | Description |
|-----|---------|-----------|------------------------------------|
| 1 | RTS | Out | Request to Send |
| 2 | DTR | Out | Data Terminal Ready (always On) |
| 3 | TXD | Out | Transmit Data |
| 4 | RI | — | Ring Indicator |
| 5 | GND | — | — |
| 6 | RXD | In | Receive Data |
| 7 | DSR/DCD | In | Data Set Ready/Data Carrier Detect |
| 8 | CTS | In | Clear to Send |

Cisco ASR 1006 Router DB-25 Pinout Assignments for Alarm Relays

The alarm ports for the Cisco ASR 1006 Router (Cisco ASR 1004 Router and Cisco ASR 1013 Router) power supplies reside on the DB-25 connector on the face of the power supply. The alarm ports are relay contact closures that the IOS environmental software controls. The environmental monitoring functions of the system can include voltage and temperature monitoring for the router installed components and failure sensing for power supply fan tray.

Any alarms that light the front panel LEDs on the Cisco ASR1000-RP1 causes a contact closure between the corresponding pins within the DB-25 alarm port of both power supplies. In the DB-25 connector, each alarm consists of a three-pin set containing a common pin, a normally open pin, and a normally closed pin. The connections that describe alarm activity are Alarm off (Common is connected to normally closed and normally open is disconnected) and Alarm on (Common is connected to normally open and normally closed is disconnected).

The following table lists the common, normally open, and normally closed relay contacts accessible to an external alarm monitoring facility by means of the DB-25 connector.

Table 8: Cisco ASR 1006 Router DB-25 Alarm Connector Pinout Assignments

| Signal | Description | Common (CM) | Normally Open (NO) | Normally Closed (NC) | SPARE |
|--------|--|-------------|--------------------|----------------------|----------------------------|
| CRTAA | Critical Audible Alarm | 2 | 1 | 14 | — |
| MAJAA | Major Audible Alarm | 16 | 3 | 15 | — |
| MINAA | Minor Audible Alarm | 5 | 4 | 17 | — |
| CRTVA | Critical Visual Alarm | 19 | 6 | 18 | — |
| MAJVA | Major Visual Alarm | 8 | 7 | 20 | — |
| MINVA | Minor Visual Alarm | 22 | 9 | 21 | — |
| SPARE | SPARE—unused pin reserved for future use | — | — | — | 10, 11, 12, 13, 23, 24, 25 |

Cisco ASR 1004 Router Specifications

This section lists the specifications for the Cisco ASR 1004 Router.

The following table lists the Cisco ASR 1004 Router physical specifications.

Table 9: Cisco ASR 1004 Router Specifications

| Description | Specification |
|------------------------|---|
| Midplane | Connects the Cisco ASR 1000 Series RP1, ASR 1000 Series ESP, Cisco ASR 1000 Series SPA Interface (SIP), SPAs, and power supplies together in the system |
| Dimensions (H x W x D) | Height = 7 in. (17.8 cm) (4RU rack-mount per EIA RS-310) Width = 17.25 in. (43.815 cm) (19 inch rack-mount or optional 23 Telco rack-mount) Depth = 22.50 in. (57.15 cm) (including card handles, cable-management brackets and power supply handles) |

| Description | Specification |
|-------------------------------|---|
| Weight | <ul style="list-style-type: none"> Fully loaded chassis: 50 pounds (22.6796 kg) Only chassis: 18 pounds (8.16 kg) |
| Nominal operating temperature | <ul style="list-style-type: none"> 41° to 104° F 5° to 40° C |
| Nominal operating humidity | 10% to 85% |
| Storage temperature | <ul style="list-style-type: none"> -38° to 150° F -40° to 70° C |
| Power consumption | <ul style="list-style-type: none"> Maximum DC: 1020W Maximum AC: 960W Maximum (Out): 765W |

Cisco ASR 1004 Router Memory and Storage Options

The following table lists the hardware memory and storage options supported on the Cisco ASR 1004 Router.

Table 10: Memory and Storage Options for Cisco ASR 1004 Router

| Memory Type | Default | Maximum System Support |
|-------------|---|---|
| RP1 | 2 GB DRAM | 4 GB DRAM |
| eUSB | 1 GB (Partitioned: 2x32MB for NVRAM and the remaining for mass storage) | For mass storage: hard disk drive 40 GB or solid-state drive 32Gb support |

Cisco ASR 1004 Router Ethernet RJ-45 Port Pinouts

The Cisco ASR 1004 Router has RJ-45 port for the 10/100/1000 Ethernet connection. The RJ-45 port supports IEEE 802.3ab (Gigabit Ethernet) and IEEE 802.3u (Fast Ethernet) interfaces compliant with 10BASET, 100BASETX, and 1000BASET specifications.

The RJ-45 port supports standard straight-through and crossover Category 5 UTP cables with RJ-45 connectors. Cisco does not supply Category 5 UTP cables; these cables are available commercially.

Cisco ASR 1004 Router MGMT Ethernet Port Signals and Pinouts

Table 11: RJ-45 Management Ethernet Port Pinouts for the Cisco ASR 1004 Router

| Pin | Signal | Direction | Description |
|------|----------|-----------|---------------|
| 1 | TX Data+ | Output | Transmit Data |
| 2 | TX Data- | Output | Transmit Data |
| 3 | RX Data+ | Input | Receive Data |
| 4, 5 | NC | — | — |
| 6 | RX Data- | Input | Receive Data |
| 7,8 | NC | — | — |

Cisco ASR 1004 Router Console Port Signals and Pinouts

Table 12: Console Port Pinouts for Cisco ASR 1004 Router

| Pin | Signal | Direction | Description |
|-----|--------|-----------|--|
| 1 | RTS | Output | Request to Send (tied directly to CTS) |
| 2 | DTR | Output | Data Terminal Ready (always On) |
| 3 | TXD | Output | Transmit Data |
| 4 | GND | — | Ring Indicator |
| 5 | GND | — | — |
| 6 | RXD | Input | Receive Data |
| 7 | DSR | Input | Unused |
| 8 | CTS | Input | Clear to Send (tied to RTS) |

Cisco ASR 1004 Router Auxiliary Port Signals and Pinouts

The following table lists the pinouts of the dual RJ-45 ports for the auxiliary port signals.

Table 13: Auxiliary Port Pinouts for Cisco ASR 1004 Router

| Pin | Signal | Direction | Description |
|-----|---------|-----------|------------------------------------|
| 1 | RTS | Output | Request to Send |
| 2 | DTR | Output | Data Terminal Ready (always On) |
| 3 | TXD | Output | Transmit Data |
| 4 | RI | — | Ring Indicator |
| 5 | GND | — | |
| 6 | RXD | Input | Receive Data |
| 7 | DSR/DCD | Input | Data Set Ready/Data Carrier Detect |
| 8 | CTS | Input | Clear to Send |

Cisco ASR 1004 Router BITS Port Signals and Pinouts

The following table lists the pinouts of the front panel Building Integrated Timing Supply (BITS) RJ45 port.

Table 14: BITS RJ-45 Receptacle Pinouts for Cisco ASR 1004 Router

| Pin | Signal | Direction | Description |
|------|---------|-----------|---------------------|
| 1 | RX Ring | Input | Receive Ring |
| 2 | RX TIP | Input | Receive TIP (T1/E1) |
| 3, 4 | N/C | — | — |
| 5 | TX Ring | Unused | — |
| 6 | TX TIP | Unused | — |
| 7,8 | N/C | — | — |

Cisco ASR 1004 Router DB-25 Pinout Assignments for Alarm Relays

The following table lists the common, normally open, and normally closed relay contacts accessible to an external alarm monitoring facility by means of the DB-25 connector.

Table 15: Cisco ASR 1004 Router DB-25 Alarm Connector Pinout Assignments

| Signal | Description | Common (CM) | Normally Open (NO) | Normally Closed (NC) | SPARE |
|--------|--|-------------|--------------------|----------------------|----------------------------|
| CRTAA | Critical Audible Alarm | 2 | 1 | 14 | — |
| MAJAA | Major Audible Alarm | 16 | 3 | 15 | — |
| MINAA | Minor Audible Alarm | 5 | 4 | 17 | — |
| CRTVA | Critical Visual Alarm | 19 | 6 | 18 | — |
| MAJVA | Major Visual Alarm | 8 | 7 | 20 | — |
| MINVA | Minor Visual Alarm | 22 | 9 | 21 | — |
| SPARE | SPARE—unused pin reserved for future use | — | — | — | 10, 11, 12, 13, 23, 24, 25 |

Cisco ASR 1002 Router, Cisco ASR 1002-F Router, and Cisco ASR 1002-X Router Specifications

This section lists the specifications for the Cisco ASR 1002 Router, Cisco ASR 1002-F Router, and Cisco ASR 1002-X Router.



Note

Unless stated otherwise, the specifications for the Cisco ASR 1002-F Router are the same as those for the Cisco ASR 1002 Router except where limited by constrained throughput of 2.5G on the Cisco ASR 1002-F Router. Similarly, most of the specifications for the Cisco ASR 1002-X Router are the same as the specifications for the Cisco ASR 1002 Router. The differences in specifications have been called out at the relevant places in this section. Some of the Cisco ASR 1002-X Router specifications that are covered in this section are for ports that are specific to that router.

The following table lists the Cisco ASR 1002 Router physical specifications.

Table 16: Cisco ASR 1002 Router Specifications

| Description | Specification |
|-------------------------------|--|
| Midplane | Connects the Cisco integrated ASR1000-RP1, the ASR 1000 ESP5 or ESP10, SPAs, and power supplies together in the system |
| Dimensions (H x W x D) | Height: 3.5 in. (8.9 cm) Width: 17.25 in. (19-inch rack-mount or optional 23 Telco adaptor brackets) Depth: 22.50 in. (including card handles, cable-management brackets, and power supply handles) for mounting in a 600mm-enclosed cabinet |
| Weight | <ul style="list-style-type: none"> • 40 lbs (18.143 kg) for a fully loaded Cisco ASR 1002 Router or Cisco ASR 1002-F Router • 43.35 lbs (19.662 kg) for a fully loaded Cisco ASR 1002-X Router |
| Nominal operating temperature | <ul style="list-style-type: none"> • 41° to 104° F • 5° to 40° C |
| Nominal operating humidity | 10% to 85% |
| Storage temperature | <ul style="list-style-type: none"> • -38° to 150° F • -40° to 70° C |
| Power consumption | <ul style="list-style-type: none"> • Maximum DC: 590W • Maximum AC: 560W • Maximum (Out): 470W |

Cisco ASR 1002 Router Mgmt Ethernet RJ-45 Port Pinouts



Note

Unless stated otherwise, the specifications for the Cisco ASR 1002-X Router are the same as the Cisco ASR 1002 Router specifications listed in this section.

The Cisco ASR 1002 Router has RJ-45 port for the 10/100/1000 Ethernet connections. The RJ-45 port supports IEEE 802.3ab (Gigabit Ethernet) and IEEE 802.3u (Fast Ethernet) interfaces compliant with 10BASET, 100BASETX, and 1000BASET specifications.

The RJ-45 port supports standard straight-through and crossover Category 5 UTP cables with RJ-45 connectors. Cisco does not supply Category 5 UTP cables; these cables are available commercially.

Table 17: Management Ethernet 10/100/1000 RJ-45 Port Pinouts for Cisco ASR 1002 Router

| Pin | Signal | Direction | Description |
|------|----------|-----------|---------------|
| 1 | TX Data+ | Output | Transmit Data |
| 2 | TX Data- | Output | Transmit Data |
| 3 | RX Data+ | Input | Receive Data |
| 4, 5 | NC | — | — |
| 6 | RX Data- | Input | Receive Data |
| 7,8 | NC | — | — |

Cisco ASR 1002 Router Console Port Signals and Pinouts



Note

Unless stated otherwise, the specifications for the Cisco ASR 1002-X Router are the same as the Cisco ASR 1002 Router specifications listed in this section.

The following table lists the pinout of the dual RJ-45 ports for the front panel console and auxiliary ports.

Table 18: Console Port Pinouts for Cisco ASR 1002 Router

| Pin | Signal | Direction | Description |
|-----|--------|-----------|---------------------------------|
| 1 | RTS | Output | Request to Send (tied to CTS) |
| 2 | DTR | Output | Data Terminal Ready (always On) |
| 3 | TXD | Output | Transmit Data |
| 4 | GND | — | Ring Indicator |
| 5 | GND | — | — |
| 6 | RXD | Input | Receive Data |

| Pin | Signal | Direction | Description |
|-----|--------|-----------|-----------------------------|
| 7 | DSR | Input | unused |
| 8 | CTS | Input | Clear to Send (tied to RTS) |

Cisco ASR 1002 Router Auxiliary Port Signals and Pinouts



Note

Unless stated otherwise, the specifications for the Cisco ASR 1002-X Router are the same as the Cisco ASR 1002 Router specifications listed in this section.

The following table lists the pinout of the dual RJ-45 ports for the auxiliary port signals.

Table 19: Auxiliary Port Pinouts for Cisco ASR 1002 Router

| Pin | Signal | Direction | Description |
|-----|---------|-----------|------------------------------------|
| 1 | RTS | Output | Request to Send |
| 2 | DTR | Output | Data Terminal Ready (always On) |
| 3 | TXD | Output | Transmit Data |
| 4 | RI | — | Ring Indicator |
| 5 | GND | — | — |
| 6 | RXD | Input | Receive Data |
| 7 | DSR/DCD | Input | Data Set Ready/Data Carrier Detect |
| 8 | CTS | Input | Clear to Send |

Cisco ASR 1002 Router BITS Port Signals and Pinouts

Table 20: BITS RJ-45 Interface Pinouts for Cisco ASR 1002 Router

| Pin | Signal | Direction | Description |
|-----|---------|-----------|--------------|
| 1 | RX Ring | Input | Receive Ring |

| Pin | Signal | Direction | Description |
|------|---------|-----------|---------------------|
| 2 | RX TIP | Input | Receive TIP (T1/E1) |
| 3, 4 | N/C | — | Not used |
| 5 | TX Ring | — | Not used |
| 6 | TX TIP | — | Not used |
| 7,8 | N/C | — | — |

Cisco ASR 1002-X Router BITS Port Signals and Pinouts

Table 21: BITS RJ-45 Interface Pinouts for Cisco ASR 1002-X Router

| Pin | Signal | Direction | Description |
|------|---------|-----------|----------------------|
| 1 | RX Ring | Input | Receive Ring |
| 2 | RX TIP | Input | Receive TIP (T1/E1) |
| 3, 4 | N/C | — | Not used |
| 5 | TX Ring | Output | Transmit Ring |
| 6 | TX TIP | Output | Transmit TIP (T1/E1) |
| 7,8 | N/C | — | — |

Cisco ASR 1002-X Router BNC GPS Ports

Table 22: GPS Port Pinout

| Signal Attribute | 10 Mhz (input and output) | 1PPS (input and output) |
|------------------|--|---|
| Waveform | Input—Sine wave Output—Square wave | Input—Pulse shape Output—Pulse shape |
| Amplitude | Input— > 1.7 volt p-p(+8 to +10 dBm) Output— > 2.4 volts TTL compatible | Input— > 2.4 volts TTL compatible Output— > 2.4 volts TTL compatible |

| Signal Attribute | 10 Mhz (input and output) | 1PPS (input and output) |
|------------------|--|-------------------------|
| Impedance | 50 ohms | 50 ohms |
| Pulse Width | 50% duty cycle | 26 microseconds |
| Rise Time | Input—AC coupled Output—5 nanoseconds | 40 nanoseconds |

Cisco ASR 1002-X Router Time of Day Port Pinout

Table 23: RJ45 1PPS/ToD Port Pinout

| Pin | Signal Name | Direction | Description |
|-----|-------------|-----------------|-----------------------|
| 1 | 1PPS_P | Output or Input | 1PPS RS422 signal |
| 2 | 1PPS_N | Output or Input | 1PPS RS422 signal |
| 3 | RESERVED | Output | Do not use this pin. |
| 4 | GND | | |
| 5 | GND | | Time of Day character |
| 6 | RESERVED | Input | Do not use this pin. |
| 7 | TOD_P | Output or Input | Time of Day character |
| 8 | TOD_N | Output or Input | Time of Day character |

Cisco ASR 1013 Router Specifications

This section lists the specifications for the Cisco ASR 1013 Router. The following table lists the Cisco ASR 1013 Router physical specifications.

Table 24: Cisco ASR 1013 Router Specifications

| Description | Specification |
|-------------|---|
| Midplane | Connects Cisco ASR1000-RP2, Cisco ASR 1000-ESP40 or Cisco ASR 1000-ESP100, Cisco ASR1000-SIP10 and Cisco ASR1000-SIP40, and power supplies together in the system |

| Description | Specification |
|------------------------------------|---|
| Dimensions (H x W x D) | Height: 22.8 in. (579.1 cm) Width: 17.2 in. (437.4 cm) Depth: 22 in (558.8 cm) with cable-management bracket and power supply handles included |
| Weight | <ul style="list-style-type: none"> • 184.0 lb (83.46 kg) (with redundant AC power supply, SPA and route processor and SIP blank covers, two embedded services processors, two route processors, six SIPs, and no SPAs) • 190.60 pounds (loaded with DC power supplies) (86.45 kg) • Total with estimated superslot weights with: <ul style="list-style-type: none"> ◦ AC power supplies—202 pounds (91.62 kg) ◦ DC power supplies —208.60 (94.61 kg) <p>Note Using the Cisco ASR1000-ESP100 instead of the Cisco ASR1000-ESP40 adds 2.1 lbs to the total weight of the router.</p> |
| Nominal operating temperature | 5° to 40° C |
| Nominal operating humidity | 10% to 85% |
| Storage temperature | <ul style="list-style-type: none"> • -38° to 150° F • -40° to 70° C |
| Power consumption (2x Zones) | <ul style="list-style-type: none"> • Maximum input (DC): 4,200W • Maximum input (AC – High Line): 4,000 W • Maximum output (DC and AC – High Line): 3,390 W |
| Per Power Supply Power Consumption | <ul style="list-style-type: none"> • Maximum input (DC): 2100W • Maximum input (AC – High Line): 2,000W Maximum input (AC – Low Line): 1,760W • Maximum output (DC and AC – High Line): 1,695W • Maximum output (AC – Low Line): 1,415W |

Cisco ASR 1013 Router Memory and Storage Options

Table 25: Memory and Storage Options for Cisco ASR 1013 Router

| Memory Type | Default | Maximum System Support |
|-------------------------------|---|------------------------------|
| R21– DRAM | 8 GB | 8 GB |
| FECP – DRAM | 1 GB for ASR1000-ESP-5 2 GB for ASR1000-ESP10 | 2 GB |
| eUSB – Internal Flash + NVRAM | 8 GB on the integrated RP on the Cisco ASR 1002 Router (partitioned: 1 GB for bootflash; 7 GB for mass storage) | 8 GB – Not Field Upgradeable |

Cisco ASR 1013 Router Ethernet RJ-45 Port Pinouts

The Cisco ASR 1013 Router has RJ-45 port for the 10/100/1000 Ethernet connections. The RJ-45 port supports IEEE 802.3ab (Gigabit Ethernet) and IEEE 802.3u (Fast Ethernet) interfaces compliant with 10BASET, 100BASETX, and 1000BASET specifications.

The RJ-45 port supports standard straight-through and crossover Category 5 UTP cables with RJ-45 connectors. Cisco does not supply Category 5 UTP cables; these cables are available commercially.

Cisco ASR 1013 Router MGMT Ethernet Port Signals and Pinouts

Table 26: Management Ethernet 10/100/1000 RJ-45 Port Pinouts for Cisco ASR 1013 Router

| Pin | Signal | Direction | Description |
|------|----------|-----------|---------------|
| 1 | TX Data+ | Output | Transmit Data |
| 2 | TX Data– | Output | Transmit Data |
| 3 | RX Data+ | Input | Receive Data |
| 4, 5 | NC | — | — |
| 6 | RX Data– | Input | Receive Data |
| 7,8 | NC | — | — |

Cisco ASR 1013 Router Console Port Signals and Pinouts

Table 27: Console Port Pinouts for Cisco ASR 1013 Router

| Pin | Signal | Direction | Description |
|-----|--------|-----------|---------------------------------|
| 1 | RTS | Output | Request to Send (tied to CTS) |
| 2 | DTR | Output | Data Terminal Ready (always On) |
| 3 | TXD | Output | Transmit Data |
| 4 | GND | — | Ring Indicator |
| 5 | GND | — | — |
| 6 | RXD | Input | Receive Data |
| 7 | DSR | Input | unused |
| 8 | CTS | Input | Clear to Send (tied to RTS) |

Cisco ASR 1013 Router Auxiliary Port Signals and Pinouts

The following table lists the pinouts of the dual RJ-45 ports for the auxiliary port signals.

Table 28: Auxiliary Port Pinouts for Cisco ASR 1013 Router

| Pin | Signal | Direction | Description |
|-----|--------|-----------|---------------------------------|
| 1 | RTS | Output | Request to Send |
| 2 | DTR | Output | Data Terminal Ready (always On) |
| 3 | TXD | Output | Transmit Data |
| 4 | RI | — | Ring Indicator |
| 5 | GND | — | — |
| 6 | RXD | Input | Receive Data |

| Pin | Signal | Direction | Description |
|-----|---------|-----------|------------------------------------|
| 7 | DSR/DCD | Input | Data Set Ready/Data Carrier Detect |
| 8 | CTS | Input | Clear to Send |

Cisco ASR 1013 Router BITS Port Signals and Pinouts

The following table lists the pinouts of the front panel Building Integrated Timing Supply (BITS) RJ45 port.

Table 29: BITS RJ-45 Interface Pinouts for Cisco ASR 1013 Router

| Pin | Signal | Direction | Description |
|------|---------|-----------|---------------------|
| 1 | RX Ring | Input | Receive Ring |
| 2 | RX TIP | Input | Receive TIP (T1/E1) |
| 3, 4 | N/C | — | — |
| 5 | TX Ring | Unused | — |
| 6 | TX TIP | Unused | — |
| 7,8 | N/C | — | — |

Cisco ASR 1013 Router DB-25 Pinout Assignments for Alarm Relays

The following table lists the common, normally open, and normally closed relay contacts accessible to an external alarm monitoring facility by means of the DB-25 connector.

Table 30: Cisco ASR 1013 Router DB-25 Alarm Connector Pinout Assignments

| Signal | Description | Common (CM) | Normally Open (NO) | Normally Closed (NC) | SPARE |
|--------|------------------------|-------------|--------------------|----------------------|-------|
| CRTAA | Critical Audible Alarm | 2 | 1 | 14 | — |
| MAJAA | Major Audible Alarm | 16 | 3 | 15 | — |
| MINAA | Minor Audible Alarm | 5 | 4 | 17 | — |

| Signal | Description | Common (CM) | Normally Open (NO) | Normally Closed (NC) | SPARE |
|--------|--|-------------|--------------------|----------------------|----------------------------|
| CRTVA | Critical Visual Alarm | 19 | 6 | 18 | — |
| MAJVA | Major Visual Alarm | 8 | 7 | 20 | — |
| MINVA | Minor Visual Alarm | 22 | 9 | 21 | — |
| SPARE | SPARE—unused pin reserved for future use | — | — | — | 10, 11, 12, 13, 23, 24, 25 |

Cisco ASR 1001-X Router Specifications

Table 31: Cisco ASR 1001-X Router Specifications, on page 20 lists the Cisco ASR 1001-X Router physical specifications.



Note

The Cisco ASR 1001-X Router has the route processor, embedded services processor, and **SIP** integrated in the chassis.

Table 31: Cisco ASR 1001-X Router Specifications

| Description | Specification |
|----------------------------------|---|
| Dimensions (H x W x D) | Height—1.71 in. (43.43 mm) Width—17.3 in. (439.42 mm) Depth—22.50 in. (571.5 mm) including card handles, cable-management brackets, and power supply handles) |
| Weight | 25 lb fully loaded |
| Nominal operating temperature | 0° to 40° C |
| Short-term operating temperature | 0° to 50° C |
| Nominal operating humidity | 10 to 90% relative humidity |
| Short-term operating humidity | 5 to 90% |
| Storage temperature | –20° to +70° C |

| Description | Specification |
|-------------------|--|
| Power consumption | <ul style="list-style-type: none"> • Maximum (DC): 242 W • Maximum (AC): 250 W • Maximum (Out): 250 W |

Cisco ASR 1001-X Router Memory and Storage Options

Table 32: [Memory and Storage Options for Cisco ASR 1001-X Router](#), on page 21 lists the hardware memory and storage options supported on the Cisco ASR 1001-X Router.

Table 32: Memory and Storage Options for Cisco ASR 1001-X Router

| Memory Type | Default | Maximum System Support |
|---------------------------|---|------------------------|
| ESP | 4 GB DRAM | 4 GB DRAM |
| Route Processor | The Cisco ASR 1001-X Router comes with 8 GB DRAM (default) | 16 GB DRAM maximum |
| External USB flash memory | The Cisco ASR 1001-X Router supports two USB flash memory secure tokens | — |
| SSD ¹ | Two 400-GB SATA SSD | — |

¹ Solid State Drive

