



# Power Consumption and Management on Poly Phones

Engineering Advisory 184953

| April 2021 | 3725-47162-001

This engineering advisory shows detailed information about the power consumption and management of the Poly Trio series, SoundStation IP and SoundStation Duo conference phones, VVX and CCX business media phones, VVX x50 series, VVX D230, and Poly Rove DECT™ IP phones.

This engineering advisory applies to the following Poly phones:

- Trio 8800, 8500, 8300, Trio 8300 NR conference phones
- Trio C60, Trio C60 NR, Trio C60 ND conference phones
- Trio Visual+ accessory
- SoundStation IP 5000, 6000, 7000 conference phones running UC Software 3.3.0 or later
- SoundStation Duo conference phone running UC software 4.0.0 or later
- CCX 400, 500, 600, 700 Business Media phones
- VVX 101, 201, 301, 311, 401, 411, 501, 601 phones and Expansion Modules
- VVX 150, 250, 350, 450 Business Media phones and Expansion Module EM 50
- VVX D230 DECT IP phones
- Poly Rove DECT IP phones running software 8.0.0 or later

For information regarding other legacy products, please see Engineering Advisory 48152.

The topics in this advisory include:

- [Power Management](#)
  - [Why Power Management is needed](#)
  - [How phone budgets power to peripherals](#)
- [Power Dissipation](#) - Power consumption data for phones.
- [PD and PSE Power Classification](#) - Classification of available maximum and minimum power levels.
- [Test Condition Terminology](#) - Description of conditions used when testing the power consumption of the phones.
- [Power Management Alerts](#) - Description on various alerts when using Expansion Modules
- [Supported Devices](#) - Describes compliant and non-compliant USB devices
- [Troubleshooting Tips](#) - Tips and workarounds for commonly facing issues

# Power Management

## Why Power Management is Needed

The phone draws power from the switch or power adapter to power itself and peripherals attached to it. The actual power drawn by a phone varies with the combinations of peripherals attached. If a phone tries to draw more power than a switch or power adapter can provide, this can result in brownout conditions such as power loss, peripheral malfunction, and reboots. To handle this discrepancy in power, the phones use a centralized power management system that carries out power budgeting and allocates power to the peripherals according to a priority sequence.

## How the Phone Budgets Power to Peripherals

### VVX Business Media Phones

**Fixed priority sequence:** When the phone is not connected to a call, the priority of the peripherals is fixed and as follows: **Expansion Module > Top port USB Device (camera) > Rear Port USB Device.** In the case of a power deficit, devices with lower priority may be powered down to power on a device with higher priority. In the case of VVX 401/411, there is only a single USB port, and this will be second in priority after the Expansion module.

**First Come First Serve Priority Sequence:** When the phone is connected to a call, first come first serve priority is followed in the case of a power deficit, irrespective of the priority; the devices that are attached will not be powered on.

### Trio Series

**Fixed priority sequence:** The Trio 8800 core platform is always powered. This includes wireless functions (Wi-Fi, Bluetooth, and NFC). Downstream PSE PoE Power of the LAN OUT port and USB Charging are two configurable power options. If both are allowed, then PSE PoE Power takes precedence and USB Charging setting is ignored. If a Class 0 POE power source is detected, then both PSE PoE Power and USB Charging settings are ignored and both features are disabled.

The following table shows how much power needs to be reserved before a peripheral is connected.

**Table 1: Power Reservation for different peripherals on VVX Business Media Phones**

Phone Model	Power Reserved for the phone	Power Reserved for EM	Power Reserved for Top USB Port	Power Reserved for Rear USB Port	Power Reserved for Bluetooth
VVX 101	3.5W (PoE); 6.0W (PSU)	N/A	N/A	N/A	N/A
VVX 201	3.5W (PoE); 6.0W (PSU)	N/A	N/A	N/A	N/A
VVX 301	6.5W/13W (PoE); 7W (min) 14.4W (PSU)		N/A	N/A	N/A
VVX 311	6.5W/13W (PoE); 7W (min) 14.4W (PSU)		N/A	N/A	N/A
VVX 401	13W (PoE); 14.4W (PSU)	7W (min)	N/A	0.5W	N/A
VVX 411	13W (PoE); 14.4W (PSU)	7W (min)	N/A	0.5W	N/A
VVX 501	13W (PoE); 25.0W (PSU)	7W (min)	0.5W	0.5W	N/A
VVX 601	13W (PoE); 25.0W (PSU)	7W (min)	0.5W	0.5W	0.3W

**Table 2: USB power output for VVX Business Media Phones**

Phone Model	Max power output for Rear USB Port	Max power output for top USB port	Max power output for side USB port
VVX 101	N/A	N/A	N/A
VVX 201	N/A	N/A	N/A
VVX 301	N/A	N/A	N/A
VVX 311	N/A	N/A	N/A
VVX 401	2.5W, 0.5A	N/A	N/A
VVX 411	2.5W, 0.5A	N/A	N/A
VVX 501	2.5W, 0.5A	2.5W, 0.5A	N/A
VVX 601	7.5W, 1.5A	2.5W, 0.5A	0.5W

**Top USB port on touchscreen models**

The top USB port on VVX 500/501 and 600/601 models is recommended for use with the VVX Camera only

The following table shows how much power needs to be reserved before a peripheral is connected.

**Table 3: Power Reservation for different peripherals on Trio series**

Phone Model	Power reserved for the unit	Power reserved for wireless (Bluetooth, NFC, Wi-Fi)	Power reserved for expansion mics	Power Reserved for USB Host Ports (Charging)	Power Reserved for LAN OUT port (PoE)
Trio 8800 (PoE)	8.1W	0.3W	0.2W	0.6W (N/A)	N/A
Trio 8800 (PoE+)	11.8W	0.3W	0.2W	0.6W (3.2W)	2.2W (Class 1) 5.0W (Class 2) 13.0W (Class 0)
Trio Visual+	5.2W	N/A	N/A	N/A	N/A
Trio 8500	7.6W	0.2W	0.2 W	0.6W(2.5W)	NA
Trio 8300	7W	0.6W	0.2W	0.6W(2.5W)	NA
Trio 8300 NR	6.3W	NA	0.2W	0.6W(2.5W)	NA
Trio C60	10W	0.9W	0.2W	0.6W(2.5W)	2.2W (Class 1) 5.0W (Class 2) 13.0W (Class 0)
Trio C60 NR	9.1W	NA	0.2W	0.6W(2.5W)	2.2W (Class 1) 5.0W (Class 2) 13.0W (Class 0)
Trio C60 ND	9.4W	0.3W	0.2W	0.6W(2.5W)	2.2W (Class 1) 5.0W (Class 2) 13.0W (Class 0)



The power reservation for the Trio 8800 and Trio Visual+ are higher when connected to a 1000 Mbps LAN and when Trio Visual+ is directly connected to Trio 8800's LAN OUT port and the system is powered by a IEEE 802.3at (PoE+) compliant power source.

**Table 4: USB power output for Trio series**

Phone Model	Max power output for USB Host Port 1 (charging)	Max power output for USB Host port 2
Trio 8800	0.6 W, 0.1 A (2.5W, 0.5 A)	N/A
Trio Visual+	0.6 W, 0.1 A	0.6 W, 0.1 A
Trio 8500	0.5 W, 0.1 A (2.5W, 0.5 A)	NA
Trio 8500	0.5 W, 0.1 A (2.5W, 0.5 A)	NA
Trio 8300	0.5 W, 0.1 A (2.5W, 0.5 A)	NA
Trio 8300 NR	0.5 W, 0.1 A (2.5W, 0.5 A)	NA
Trio C60	0.5 W, 0.1 A (2.5W, 0.5 A)	NA
Trio C60 NR	0.5 W, 0.1 A (2.5W, 0.5 A)	NA
Trio C60 ND	0.5 W, 0.1 A (2.5W, 0.5 A)	NA

**USB Charging or PSE PoE Power**

USB Charging and PSE PoE Power of the LAN OUT port of the Trio 8800 are mutually exclusive and cannot be enabled at the same time.

# Power Dissipation

Testing of the Poly phones reveals the power consumption data shown in the following table.



## Note: When the CDP Advertisement is Displayed

Only Poly phones running UC software 3.3.0 or later display the CDP advertisement shown in [Table 5](#).

**Table 5: Power Dissipation and Advertisement for Poly Phones**

Phone Model	Idle State (minimum power)	Call State (nominal hands-free volume)	Maximum Power	Class Advertisement <sup>1</sup> (IEEE 802.3af)	CDP Advertisement <sup>4</sup>
<b>SoundStation</b>					
IP 5000	3.7W	4.3W	6.0W	2	5.8
IP 6000	4.1W	5.0W	7.0W	0	9.8
IP 7000	4.6W	6.1W	9.9W	0	9.8
Duo	3.0W	4.5W	7.0W	0	7.0
<b>VVX</b>					
Phone Model	Idle State (minimum power)	Call State (nominal hands-free volume)	Maximum Power	Class Advertisement <sup>1</sup> (IEEE 802.3af)	CDP Advertisement <sup>4</sup>
VVX 101	1.3W	2.6W	3.0W	1	5.0W
VVX 201	1.4W	2.9W	3.5W	1	5.0W
VVX 301	2.2W	3.2W	3.5W	2,0 <sup>4</sup>	7.0W
VVX 311	2.5W	3.4W	4.0W	2,0 <sup>4</sup>	7.0W
VVX 401	2.5W	4.2W	4.5W	3	15.4W
VVX 411	2.5W	4.5W	5.0W	3	15.4W
VVX 501	4.1W	4.6W	5.0W	4 <sup>2</sup>	15.4W
VVX 601	4.2W	4.8W	5.7W	4 <sup>2</sup>	15.4W
VVX Expansion Module (Paper)	0.5W	n/a	2.1W <sup>5</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>

Phone Model	Idle State (minimum power)	Call State (nominal hands-free volume)	Maximum Power	Class Advertisement <sup>1</sup> (IEEE 802.3af)	CDP Advertisement <sup>4</sup>
VVX Expansion Module (LCD)	1.4W	n/a	2.9W	n/a <sup>3</sup>	n/a <sup>3</sup>
Phone Model	Idle State (minimum power)	Call State (nominal hands-free volume)	Maximum Power	Class Advertisement <sup>1</sup> (IEEE 802.3af)	CDP Advertisement <sup>4</sup>
Trio Series					
Trio 8300	3.41W	4.8W	6W	4	13W
Trio 8300 NR	3.02W	4.2W	5.3W	4	13W
Trio C60 (PSE port disabled)	5.2W	7.5W	9W	4	13W
Trio C60 (PSE powered another Trio C60)	12.9W	14.2W	19.0W	4	25.5W
Trio C60 ND (PSE port disabled)	5.1W	7.5W	8.4W	4	13W
Trio C60 ND (PSE powered another Trio C60)	12.9W	13.8W	17.5W	4	25.5W
Trio C60 NR (PSE port disabled)	4.3W	6.7W	8.1W	4	13W
Trio C60 NR (PSE powered another Trio C60)	12.2W	13.2W	16.5W	4	25.5W
CCX					
Phone Model	Idle State (minimum power)	Call State (nominal hands-free volume)	Maximum Power	Class Advertisement <sup>1</sup> (IEEE 802.3af)	CDP Advertisement <sup>4</sup>
CCX 400	2.2W	5W	12W	3	13W
CCX 500	2.8W	7W	12W	0	13W

Phone Model	Idle State (minimum power)	Call State (nominal hands-free volume)	Maximum Power	Class Advertisement <sup>1</sup> (IEEE 802.3af)	CDP Advertisement <sup>4</sup>
CCX 600	5.8W	11W	18W	4	25W
CCX 700	7.6W	13W	20W	4	25W
<b>VVX x50</b>					
VVX 150	1.8W	2.3W	3.6W	2	3.5W
VVX 250	2.2W	3.2W	4.2W	2	5.0W
VVX 350	2.5W	3.6W	4.4W	0	5.0W
VVX 450	2.6W	3.7W	4.8W	0	5.0W
VVX EM50	2.7W	N/A	3.0W	N/A	5.0W
VVX DECT	Idle State (minimum power/handset on cradle at 50% battery capacity)	Call State (nominal hands-free volume + handset off cradle/handset on cradle at 50% battery capacity)	Maximum Power	Class Advertisement <sup>1</sup> (IEEE 802.3af)	CDP Advertisement <sup>4</sup>
VVX D230	3.6W/4.7W	3.9W/5.4W	6.0W	2	5W
<b>Poly Rove</b>					
Rove B2	1.8W	2.64W	6.49W	2	5W
Rove B4	1.8W	2.64W	6.49W	2	5W
Rove R8	0.7W	1.91W	4.5W	N/A	N/A

**Table 6: USB Power Dissipation for Poly Phones**

Phone Model	USB Power
VVX 401	2.5W total
VVX 411	2.5W total
VVX 501	7.5W total
VVX 601	12.5W total



Phone Model	USB Power
VVX 250	2.5W, 0.5A
VVX 350	2.5W, 0.5A (Side/Back)
VVX 450	2.5W 0.5A (rear); 6.0W/1.2A (side)
EM50	Up to 5W (side; pass-through power)
Trio 8300	2.5W
Trio 8300 NR	2.5W
Trio C60 (PSE port disabled)	2.5W
Trio C60 (PSE powered another Trio C60)	2.5W
Trio C60 ND (PSE port disabled)	2.5W
Trio C60 ND (PSE powered another Trio C60)	2.5W
Trio C60 NR (PSE port disabled)	2.5W
Trio C60 NR (PSE powered another Trio C60)	2.5W
Trio 8800 with 2 Expansion Mics	2.5W
Trio 8800 <sup>6</sup> with Trio Visual+	2.5W
Trio Visual+ with Logitech C930e	0.6W
Trio 8500 with 2 Expansion Mics	2.5W
CCX 400	2.5W x 1 USB A
CCX 500	2.5W x 1 USB A 2.5W x 1 USB C
CCX 600	2.5W x 1 USB A 2.5W x 1 USB C
CCX 700	2.5W x 1 USB A 2.5W x 1 USB C

**Table 7: Power Consumption for Trio 8500**

	USB Connected	USB Disconnected
Normal mode consumption (normal phone SIP call + phone at full volume)	4.6W but sometimes touches ~5.0W	4.6W

	USB Connected	USB Disconnected
No activity normal mode (full backlight, before sleep)	3.1W but sometimes touches ~3.7W	3.7W but sometimes touches ~4W
Idle at the idle backlight dimming	4.1W but sometimes touches ~4.7W	2.5W
Full sleep LPM backlight off	3.1W but sometimes touches ~3.8W	2.5W

1. See Table 8: PD Power Classification (IEEE 802.3af).
2. VVX 500 and VVX 600 advertise as Class 4, in conformance with IEEE802.3at specification (backwards compatible with IEEE802.3af).
3. Class/CDP advertised through Host Phone (no native PoE on-board).
4. The VVX300/301/310/311/400/410 will change their power classification to level 0 when an EM is attached.
5. Paper label VVX Expansion Modules added beyond the first will use an additional 0.1W for a total of 2.2W.
6. Assumes Bluetooth is enabled and USB storage device and Trio Visual+ is supplied by PSE
7. Power over Ethernet switches that don't support IEEE802.3at (PoE+) will offer Class 0.

## Power Classification changes on connecting an EM

On their own, VVX 3xx/4xx phones default to PoE Class 2 signature to the PoE Switch (3.8W-6.5W). This provides sufficient power to operate the VVX phones under all call conditions.

When an Expansion Module is connected, the hard-wired signature reverts to PoE Class 0 (0-13W) after power-up, signaling to the Switch to allocate more power allowing up to 3 x Expansion Modules to be connected.

The phone must be power-cycled to initiate this PoE Class change. If you attempt to plug 3 x Expansion Modules into an already running VVX 3xx/4xx there will not be sufficient power for them until the next reboot.

## PD and PSE Power Classification

Powered Device (PD) power classification is shown in [Table 4: PD Power Classification \(IEEE 802.3af\)](#). This defines the maximum power levels available at the PD (phone).

**Table 8: PD Power Classification (IEEE 802.3af)**

Class	Usage	Maximum Power Range Used by the PD (phone)
0	Default	0.44 to 12.95W
1	Optional	0.44 to 3.84W

Class	Usage	Maximum Power Range Used by the PD (phone)
2	Optional	3.84 to 6.49W
3	Optional	6.49 to 12.95W
4	Optional	VVX and Trio: 12.95 to 25.5W (IEEE802.3at, PoE+)

Power Sourcing Equipment (PSE) power classification is shown in [Table 8: PSE Power Classification \(IEEE 802.3af\)](#). This defines the minimum power levels available at the PSE (PoE switch).

**Table 9: PSE Power Classification (IEEE 802.3af)**

Class	Usage	Minimum Power Levels at Output of PSE (PoE switch)
0	Default	15.4 Watts
1	Optional	4.0 Watts
2	Optional	7.0 Watts
3	Optional	15.4 Watts
4	Reserved	Reserved for future use

The deltas in power level between Table 4 and 5 provision voltage and current losses in cabling lengths of up to 100m (330ft), that may be encountered in enterprise installations.

## VVX Business Media Phone Power Management Alerts

This section describes the Power Management Alerts that are displayed on a phone that uses Expansion Modules:

- **“EM1 cannot be powered on”**: The power available is not sufficient to power on the first Expansion Module. To power it on, remove any USB devices that are connected to the phone or move the phone to a higher power source.
- **“EM2 cannot be powered on”**: The power available is not sufficient to power on the second Expansion Module. To power it on, remove any USB devices that are connected to the phone or move the phone to a higher power source.

- **“EM3 cannot be powered on”**: The power available is not sufficient to power on the third Expansion Module. To power it on, remove any USB devices connected to the phone or move the phone to a higher power source.
- **“Top port USB Device cannot be powered on”**: The power available is not sufficient to power on the USB device connected to the Top USB port. To power on the device, remove any Expansion Module connected to the phone or move to a higher power source.
- **“Rear port USB device cannot be powered on”**: The power available is not sufficient to power on the USB device connected to the Rear USB port. To power on the device, remove any Expansion Module connected to the phone or move to a higher power source.
- **“Top port USB Device is powered down”**: The power available is not sufficient to power on an Expansion Module that was attached. According to the Fixed Priority sequence, the Top port USB device was powered down. To power on the device, remove an Expansion Module or move to a higher power source.
- **“Rear port USB Device is powered down”**: The power available is not sufficient to power on an Expansion Module/a USB device on the Top USB port. According to the fixed priority sequence, the Rear port USB device was powered down. To power on the device, remove an Expansion Module/USB device on the Top USB port or move to a higher power source.
- **“Top USB port is powered down”**: The power available is not sufficient to power on a non-compliant /over current drawing device connected to the Top USB port. This may happen both when the device is connected during power deficit or when a higher priority device was connected and the Top port device was powered down. To power on the device, remove and Expansion Module or move to a higher power source.
- **“Rear USB port is powered down”**: The power available is not sufficient to power on a non-compliant /over current drawing device connected to the Rear USB port. This may happen both when the device is connected during power deficit or when a higher priority device was connected and the Rear port USB device was powered down. To power on the device, remove an Expansion Module or move to a higher power source.

## Trio Power Management Alerts

This section describes the Power Management Alerts that are displayed on a phone:

- **“13W Power Supply detected. Ignoring PSE and USB changing configuration”**: The power source detected (IEEE 802.3af PoE) is not sufficient to power the Trio 8800 when either PSE PoE Power (of LAN OUT port) or USB Charging is enabled. The alert will also be displayed when attempting to enable PSE PoE Power (of LAN OUT port) or USB Charging when connected to an IEEE 802.3af PoE compliant power source. The system will ignore the settings and not enable PSE PoE Power (of LAN OUT port) or USB Charging. When connecting the Trio 8800+ to an IEEE 802.3at PoE+ power source, the settings will take effect and enable PSE PoE Power (of LAN OUT port) or USB Charging.
- **“Overcurrent failure detected. Remove recently added SUB device”**: The power available via the USB host port is not sufficient to power on the USB device connected to the USB host port. USB power levels supported are up to 100mA with ‘USB Charging’ feature disabled and up to 500mA with ‘USB Charging’ enabled.



'USB Changing' of the USB host port and PSE PoE Power of LAN OUT port cannot be enabled at the same time. If both are enabled PSE PoE Power is only supported and USB Charging will be ignored.

## VVX Business Media Phones Supported Devices

The USB port on the phones only supports USB thumb drives, headsets, and the VVX camera. Phones do not support DVD writers, hubs or any devices not compliant to the USB specification.

## VVX Business Media Phones Supported PSUs

Below is a list of VVX phones and PSUs that are compatible with each phone model.

Product	Compatible PSU SKUs	Rating
VVX 101	2200-40350-001, 2200-40350-002, 2200-40350-010, 2200-40350-012, 2200-40350-014, 2200-40350-015, 2200-40350-016, 2200-40350-022, 2200-40350-030, 2200-40350-036, 2200-40350-12	12V, 0.5A
VVX 201	2200-40350-001, 2200-40350-002, 2200-40350-010, 2200-40350-012, 2200-40350-014, 2200-40350-015, 2200-40350-016, 2200-40350-022, 2200-40350-030, 2200-40350-036, 2200-40350-12	12V, 0.5A
VVX 301	2200-48560-001, 2200-48560-012, 2200-48560-016, 2200-48560-022, 2200-48560-102, 2200-48560-122, 2200-48560-212	48V, 0.52A
VVX 301	2200-48570-001, 2200-48570-015, 2200-48570-125	48V, 0.3A
VVX 311	2200-48560-001, 2200-48560-012, 2200-48560-016, 2200-48560-022, 2200-48560-102, 2200-48560-122, 2200-48560-212	48V, 0.52A
VVX 311	2200-48570-001, 2200-48570-015, 2200-48570-125	48V, 0.3A
VVX 401	2200-48560-001, 2200-48560-012, 2200-48560-016, 2200-48560-022, 2200-48560-102, 2200-48560-122, 2200-48560-212	48V, 0.52A
VVX 401	2200-48570-001, 2200-48570-015, 2200-48570-125	48V, 0.3A
VVX 411	2200-48560-001, 2200-48560-012, 2200-48560-016, 2200-48560-022, 2200-48560-102, 2200-48560-122, 2200-48560-212	48V, 0.52A
VVX 411	2200-48570-001, 2200-48570-015, 2200-48570-125	48V, 0.3A
VVX 501	2200-48560-001, 2200-48560-012, 2200-48560-016, 2200-48560-022, 2200-48560-102, 2200-48560-122, 2200-48560-212	48V, 0.52A
VVX 601	2200-48560-001, 2200-48560-012, 2200-48560-016, 2200-48560-022, 2200-48560-102, 2200-48560-122, 2200-48560-212	48V, 0.52A
VVX 150	2200-48872-001, 2200-48871-015, 2200-48871-125	5V, 3A
VVX 250	2200-48872-001, 2200-48871-015, 2200-48871-125	5V, 3A
VVX 350	2200-48872-001, 2200-48871-015, 2200-48871-125	5V, 3A
VVX 450	2200-48872-001, 2200-48871-015, 2200-48871-125	5V, 3A

EOL Product	Compatible PSU SKUs	Rating
VVX 300	2200-46170-001, 2200-46170-002, 2200-461070-010, 2200-46170-022, 2200-46170-102, 2200-46170-122, 2200-46174-001, 2200-46175-002, 2200-46175-010, 2200-46175-012, 2200-46175-022, 2200-46175-102, 2200-461750-122	48V, 0.4A
VVX 310	2200-46170-001, 2200-46170-002, 2200-461070-010, 2200-46170-022, 2200-46170-102, 2200-46170-122, 2200-46174-001, 2200-46175-002, 2200-46175-010, 2200-46175-012, 2200-46175-022, 2200-46175-102, 2200-461750-122	48V, 0.4A
VVX 400	2200-46170-001, 2200-46170-002, 2200-461070-010, 2200-46170-022, 2200-46170-102, 2200-46170-122, 2200-46174-001, 2200-46175-002, 2200-46175-010, 2200-46175-012, 2200-46175-022, 2200-46175-102, 2200-461750-122	48V, 0.4A
VVX 410	2200-46170-001, 2200-46170-002, 2200-461070-010, 2200-46170-022, 2200-46170-102, 2200-46170-122, 2200-46174-001, 2200-46175-002, 2200-46175-010, 2200-46175-012, 2200-46175-022, 2200-46175-102, 2200-461750-122	48V, 0.4A
VVX 500	2200-46170-001, 2200-46170-002, 2200-461070-010, 2200-46170-022, 2200-46170-102, 2200-46170-122, 2200-46174-001, 2200-46175-002, 2200-46175-010, 2200-46175-012, 2200-46175-022, 2200-46175-102, 2200-461750-122	48V, 0.4A
VVX 600	2200-46170-001, 2200-46170-002, 2200-461070-010, 2200-46170-022, 2200-46170-102, 2200-46170-122, 2200-46174-001, 2200-46175-002, 2200-46175-010, 2200-46175-012, 2200-46175-022, 2200-46175-102, 2200-461750-122	48V, 0.4A

## Poly VVX x50 Series Supported Power Supply Units (PSUs)

Only the following PSUs will operate with the VVX 150, 250, 350, and 450:

Region	SKU	Rating
North America/Japan	2200-48872-001	5V, 3A
BZ/KR/CN	2200-48871-015	5V, 3A
EU/ANZ/UK	2200-48871-125	5V, 3A
India	2200-48872-036	5V, 3A

## Poly VVX x50 Series General Power Considerations

1. High power consuming USB devices such “cup warmers” are NOT supported as they will draw maximum power from the rear USB port. Devices like these will trip the Class 0 power circuit.
2. LED Diagnostic Mode operation should be avoided when the phone has an active call.
3. Optional PSUs rated at 15W are available (see above) for additional power requirements.

## Trio Supported Devices

The USB host port on the Trio 8800 and Trio Visual+ support USB thumb drives, headsets, keyboards, and the Logitech Webcam C930e. DVD writers, hubs, or any devices not compliant to the USB specification are not supported.

The USB host port on the Trio 8800 can be configured to support USB charging but only when PSE PoE Power for the LAN OUT is disabled.

The downstream Ethernet port (LAN OUT) of the Trio 8800 phone supports the IEEE 802.3af PoE compliant devices like the Trio Visual+ accessory.

## Test Condition Terminology

The following test condition terminology was used in [Table 5](#).

- Idle State
  - The phone has completed the boot-up process.
  - Ethernet speed at 10/100 Mbps on LAN port; PC port not connected
  - The idle screen is shown on the LCD.
  - Where applicable, the LCD backlight was set to default minimum (sleep mode) brightness.
  - There was no call state established.
- Call State
  - Both LAN and PC ports running at maximum capable data rates
  - The hands-free transducer was activated for each UUT and was set to default nominal volume.
  - Normal call established in hands-free mode.
  - The LCD backlight set to default maximum brightness.
- Maximum (or peak) Power
  - All ports and peripherals running at maximum data rates
  - Maximum volume on hands-free transducer; running codec stress tests with select wav files
  - LCD backlight and line LEDs set at maximum brightness.
- Class Advertisement
  - The Power over Ethernet (PoE) class advertisement circuitry on-board SoundPoint IP, SoundStation IP, and VVX phones
- CDP Advertisement
  - The power requirements for CDP reported by SoundStation IP, and VVX phones running minimum release of SIP 3.1.0 and BootROM 4.1.2.
- Power consumption measured using PoE IEEE802.3af standard powering
  - The measurements were taken as average from six IEEE802.3af compliant PoE switches.
  - The power consumption using AC/DC adapters is similar to above, but must account for approximately 72% efficiency rating from AC source.
- Power consumption measured at the SoundStation IP phone end
  - 7ft maximum length LAN cord to PoE switch during measurement
  - 2.45W maximum power loss allowable over 100m (330ft) cable lengths

# Troubleshooting tips

This section describes some basic troubleshooting tips for the issues commonly faced while using Expansion Modules.

## USB Headset does not work

- Refer to the section on peripheral priority. Unplug an expansion module or any device on the Top/Rear USB port. Then reconnect the USB Headset.
- Use a higher power source

## USB pen drive does not work

- Refer to the section on peripheral priority. Unplug an expansion module or any device on the Top/Rear USB port. Then reconnect the USB Pen drive.
- Use a higher power source

## VVX Camera does not work

- Refer to the section on peripheral priority. Unplug an expansion module or any device on the Rear USB port. Then reconnect the VVX Camera.
- Use a higher power source

## Expansion Module does not work

- Unplug any USB devices connected to the Top/Rear USB ports and reconnect the Expansion Module.
- Use a higher power source



## Trademarks

©2021, Poly. All rights reserved.

POLY®, and the names and marks associated with Poly's products are trademarks and/or service marks of Poly. and are registered and/or common law marks in the United States and various other countries. All other trademarks are property of their respective owners. No portion hereof may be reproduced or transmitted in any form or by any means, for any purpose other than the recipient's personal use, without the express written permission of Poly

## Disclaimer

While Poly uses reasonable efforts to include accurate and up-to-date information in this document, Poly makes no warranties or representations as to its accuracy. Poly assumes no liability or responsibility for any typographical or other errors or omissions in the content of this document.

## Limitation of Liability

Poly and/or its respective suppliers make no representations about the suitability of the information contained in this document for any purpose. Information is provided "as is" without warranty of any kind and is subject to change without notice. The entire risk arising out of its use remains with the recipient. In no event shall Poly and/or its respective suppliers be liable for any direct, consequential, incidental, special, punitive or other damages whatsoever (including without limitation, damages for loss of business profits, business interruption, or loss of business information), even if Poly has been advised of the possibility of such damages.

## Customer Feedback

We are constantly working to improve the quality of our documentation, and we would appreciate your feedback. Please send email to [VoiceDocumentationFeedback@poly.com](mailto:VoiceDocumentationFeedback@poly.com)



2021 Plantronics, Inc. All rights reserved. Poly and the propeller design are trademarks of Plantronics, Inc. The Bluetooth trademark is owned by Bluetooth SIG, Inc. and any use of the mark by Plantronics, Inc. is under license. All other trademarks are the property of their respective owners.