Grandstream Networks, Inc.

GXV Video Phones

Power Consumption Technical Bulletin

1. Power Dissipation and Advertisement

Table 1: Power Dissipation and Advertisement

Product	Power Adapter (12VDC)				PoE (46.9VDC)					Class Advertisement (IEEE 802.3at)
	Idle State (W)	State	Work State (W)	Power Not to Exceed (W)	Idle State (W)	State	Work State (W)	Power Not to Exceed (W) 802.3af	Power Not to Exceed (W) 802.3at	
GXV3370	2.94	RING	6.88	13.17	3.78	RING	9.50	10.40	15.20	4
		CALL	7.15			CALL	8.56			
		USB	8.73			USB	10.70			
GXV3380	4.54	RING	8.09	16.97	5.20	RING	8.39	13.52	18.29	4
		CALL	8.13			CALL	8.51			
		USB	10.86			USB	11.21			
GXV3350	2.04	RING	5.59	11.69	8.10	RING	7.11	13.85	13.65	4
		CALL	5.63			CALL	7.33			
		USB	7.96			USB	10.52			
GXV3350 +1GBX20	3.55	RING	7.25	8.20	6.14	RING	9.15	11.05	10.92	4
		CALL	7.48			CALL	9.44			
		USB	/			USB	/			
GXV3350 +2GBX20	5.19	RING	9.14	9.65	7.15	RING	11.02	12.56	12.38	4
		CALL	9.54			CALL	11.65			
		USB	/			USB	/			
GXV3470	5.69	RING	6.38	16.56	6.56	RING	8.13	/	18.28	4
		CALL	5.72			CALL	7.81			
		USB	/			USB	/			
GXV3480	6.25	RING	6.72	18.12	7.5	RING	8.28	/	20.31	4
		CALL	6.09			CALL	8.13			
		USB	/			USB	/			
GXV3450	3.72	RING	5.38	16.41	5.16	RING	6.88	/	17.66	4
		CALL	5.21			CALL	5.31			
		USB	7.88			USB	8.75			
GXV3450(+1GBX20)	4.91	RING	6.58	15.02	6.4	RING	8.38	/	16.28	4
		CALL	6.51			CALL	6.81			
		USB	/			USB	/			

Notes:

1. GBX20 is GBX20 EXT Extension Module.

2. Class Advertisement Refer to Table 2 for IEEE 802.3af Classification at PD.

3. The power of GBX20 can be supplied by GXV3350. When connecting 2 or more GBX20, must be

supplied by its own supply power.

4. GXV3370/3380 under the 802.3af power supply protocol, the software will shut down the USB interface.

5. GXV3480 test maximum power consumption, add 800mA load per USB.

6. GXV34x0 PoE is designed to support up to 802.3at (Class 4). So, 802.3af (Class 3) is not tested.

2. PD Power Classification

Table 2: PD Power Classification (IEEE 802.3af)

Class	Usage	Max Power Range used by the PD (phone)
0	Default	0.44 to 12.95W
1	Optional	0.44 to 3.84W
2	Optional	3.84 to 6.49W
3	Optional	6.49 to 12.95W
4	Not Allowed	Reserved for future use (for example: IEEE802.3at)

Table 3: PD Power Classification (IEEE 802.3at)

Class	Usage	Max Power Range used by the PD (phone)
0	Default	0.44 to 12.95W
1	Optional	0.44 to 3.84W
2	Optional	3.84 to 6.49W
3	Optional	6.49 to 12.95W
4	Optional	12.95W to 25.5W

3. Test Condition Terminology

The following test condition terminology was used in Table 1.

▪ **Idle State**

- The phone has completed the boot-up process.
- The SIP application was running PCMA codec with SRTP.
- The idle screen was shown on the LCD.
- LCD Backlight (Normal brightness).
- GXV3370 turns off LCD in this mode.

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- **Work State**

    - The phone was setup as described in the Idle State.
    - **RING State:** The phone has an incoming call from another phone. The phone is ringing without answering it.
    - **CALL State:** The phone is calling to another phone.
    - **USB State:** The external USB device connected to phone's USB interface should be at the maximum power.

- **Power Not Exceed**

    - +nGBX20 means connected to n GBX20 Extension Module(s), n=1, 2, 3 or 4
    - GBX20 works condition: All indicator LEDs are light on.
    - External USB device in Max Power.
    - GBX20 works condition: All indicator LEDs are lighting.
    - Ring state or Called state.