



IP Phone Technical Bulletin

Power Consumption of BudgeTone and Enterprise IP Phones Series

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

ITEM	Product	Power Adapter(5.12VDC)			POE (46.9VDC)			Class Advertisement (IEEE 802.3af)
		Idle State	Work State	Power Not to Exceed	Idle State	Work State	Power Not to Exceed	
		Power(W)	Power(W)	Power(W)	Power(W)	Power(W)	Power(W)	
1	BT200	2.450	2.780	2.880	N/A	N/A	N/A	N/A
2	GXP280	1.950	2.038	2.253	N/A	N/A	N/A	N/A
3	GXP285	1.950	2.038	2.253	2.592	2.736	3.200	1
4	GXP1200	2.430	2.890	2.890	4.890	5.460	5.460	0
5	GXP2000	2.420	3.140	3.190	5.080	5.890	5.940	0
6	GXP2000+1EXT ^A	3.010	3.640	3.680	5.700	6.510	6.560	0
7	GXP2000+2EXT ^A	3.470	4.130	4.140	6.320	7.140	7.230	0
8	GXP2010	2.490	2.840	3.110	3.450	3.990	4.180	0
9	GXP2010+1EXT ^B	2.920	3.400	3.640	3.840	4.520	4.670	0
10	GXP2010+2EXT ^B	3.400	3.900	4.190	4.470	5.010	5.150	0
11	GXP2020	2.950	3.750	3.820	3.850	4.760	4.960	0
12	GXP2020+1EXT ^B	3.400	4.270	4.370	4.530	5.250	5.440	0
13	GXP2020+2EXT ^B	3.930	4.830	4.920	4.910	5.880	5.980	0
14	GXP2120	1.413	1.567	2.509	1.923	2.157	3.189	2
15	GXP2120+1EXT ^B	1.859	2.043	3.256	2.439	2.720	4.174	2
16	GXP2120+2EXT ^B	2.355	2.529	3.994	3.095	3.424	5.159	2
17	GXP2110	1.423	1.556	2.452	1.970	2.111	3.236	2
18	GXP2110+1EXT ^B	1.869	2.007	3.190	2.486	2.673	4.174	2
19	GXP2110+2EXT ^B	2.345	2.473	3.917	3.095	3.330	5.206	2
20	GXP1100	0.999	1.267	1.590	N/A	N/A	N/A	N/A
21	GXP1105	0.999	1.267	1.590	1.459	1.816	2.032	2
22	GXP1160	1.791	2.081	3.129	N/A	N/A	N/A	N/A
23	GXP1165	1.791	2.081	3.129	2.544	2.986	4.416	2
24	GXP1400	1.561	1.869	2.107	N/A	N/A	N/A	N/A
25	GXP1405	1.561	1.869	2.107	2.260	2.672	3.022	2
26	GXP1450	1.834	2.053	2.391	2.668	2.910	3.686	2
27	GXP2100	2.036	2.360	3.219	2.750	3.730	4.300	2
28	GXP2124	1.193	1.933	2.822	1.989	3.138	3.918	2

ITEM	Product	Power Adapter(12VDC)			POE (46.9VDC)			Class Advertisement (IEEE 802.3af)
		Idle State	Work State	Power Not to Exceed	Idle State	Work State	Power Not to Exceed	
		Power(W)	Power(W)	Power(W)	Power(W)	Power(W)	Power(W)	
1	GXP2200	3.678	3.920	12.382	4.511	4.705	14.599	0
2	GXP2200+1EXT ^C		4.918	9.135		5.855	10.946	0
3	GXP2200+2EXT ^C		5.916	10.133		7.004	12.095	0
4	GXP2200+3EXT ^C		6.914	11.131		8.153	13.245	0
5	GXP2200+4EXT ^C		7.912	12.129		9.303	14.394	0
6	GXP2130	1.870	1.955	2.086	1.970	2.296	2.408	2
7	GXP2140	1.442	2.161	5.490	2.290	2.626	6.789	3
8	GXP2140+1EXT ^C	2.660	3.520	6.619	3.420	4.430	8.027	3
9	GXP2140+2EXT ^C	3.560	4.420	7.541	4.590	5.390	9.260	3
10	GXP2140+3EXT ^C	4.510	5.330	8.754	5.650	6.340	10.419	3
11	GXP2140+4EXT ^C	5.470	6.200	9.674	6.710	7.610	11.802	3
12	GXP2160	1.454	2.171	6.003	2.400	2.814	7.487	3

- Note: 1).EXT^A is GXP2000EXT Extension Module.
 2).EXT^B is GXP2010/GXP2020EXT Extension Module.
 3).EXT^C is GXP2200EXT Extension Module.
 4).Class Advertisement Refer to Table 2 for IEEE 802.3af Classification at PD.
 5).The Power of EXT^A and EXT^B is supplied by GXP2010/GXP2020 directly.

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: IEEE802.3af)

3. Test Condition Terminology

The following test condition terminology is used in Table 1

• Idle State

- The phone has completed the boot-up process.
- The SIP application is running PCMA codec with SRTP.
- The idle screen is shown on the LCD.
- LCD Backlight (Normal brightness).

• Work State

- The phone is setup as described in the Idle State.
- The maximum number of calls are established for each Unit Under Test (UUT).
- The Handsfree mode is activated for each UUT and set to maximum volume.
- The LCD displayed at the Diagnostic screen during the test.
- BT200/GXP280 are using handfree mode.

• Power Not to Exceed

- +nEXT means connect to n Extension Module(s), n=1, 2, 3, 4.
- EXT work condition: All Indicator LEDs are lighting up.
- External USB device in Max Power.
- EXT work condition: All Indicator LEDs are lighting.
- Ring state or Called state.



Video Phone Technical Bulletin

Power Consumption of Video Phone Series 1

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

ITEM	Product	Power Adapter Mode			POE Mode			Class Advertisement (IEEE 802.3af)
		Standby	Operating	Max Power	Standby	Operating	Max Power	
		Power(W)	Power(W)	Power(W)	Power(W)	Power(W)	Power(W)	
1	GXV3000	6.12	6.36	10.68	N/A	N/A	N/A	N/A
2	GXV3005	6.24	6.36	10.68	N/A	N/A	N/A	N/A
3	GXV3006	6.96	7.32	13.16	N/A	N/A	N/A	N/A
4	GXV3140 V1.0	3.48	3.72	7.08	N/A	N/A	N/A	N/A
5	GXV3140 V2.1	3.55	4.32	7.21	N/A	N/A	N/A	N/A
6	GXV3140 V2.2	3.67	4.46	7.37	4.26	5.42	8.72	Class 0
7	GXV3175 V1.4	6.236	8.385	16.8	7.483	10.062	13	Class 0
8	GXV3175 V2.5	6.36	7.71	14.08	7.53	9.146	13	Class 0

Video Phone model differences						
Model	LCD size	Integrated WIFI	PoE	USB ports	FXS port	FXO port
GXV3000	5.6inch,320*3RGB*234	N/A	N/A	2	N/A	N/A
GXV3005	5.6inch,320*3RGB*234	N/A	N/A	2	N/A	YES
GXV3006	5.6inch,320*3RGB*234	N/A	N/A	2	YES	N/A
GXV3140	4.3inch,480*3RGB*272	N/A	YES	1	N/A	N/A
GXV3175	7inch800*3(RGB)*480	YES	YES	2	N/A	N/A

2. Test Condition Terminology

The following test condition terminology is used in Table 1.

• **Standby**

- The phone has completed the boot-up process.
- The SIP application is running PCMU codec with SRTP.
- The idle screen is shown on the LCD.
- LCD Backlight is set to 10 (The brightest backlight).
- No established call.

• **Operating**

- Operating 1: Handset Audio Call; Volume: 7 or 9; Backlight: 10; Codec: PCMU; Do not connect external device
- Operating 2: Handfree Audio Call; Volume: 7 or 9; Backlight: 10; Codec: PCMU; Do not connect external device
- Operating 3: Ringing; Volume: 7 or 9; Backlight: 10; Codec: PCMU; Do not connect external device
- Operating 4: Video Call; Volume: 9; Backlight: 10; Codec: H264; Video rate: 1024kbps; Do not connect external device
- Operating 5: Viewing Pictures; Backlight: 10; Connect with SD CARD
- Operating 6: Video Playing; Volume: 9; Backlight: 10; Connect with SD CARD to play the video in it
- Operating 7: Video Playing with HDMI Output; Volume: 9; Backlight: 10; Connect with TV to play video
- Operating 8: USB driver running; Volume: 9; Backlight: 10; Connect with USB Flash Drive, USB keyboard or USB mouse
- Operating 9: Wi-Fi Connected; Volume: 9; Backlight: 10; Connected with built-in Wi-Fi

• **Max Power**

- Volume: 9; Backlight: 10
- Video Phone working at Handsfree mode
- Using internal Wi-Fi (GXV3175)
- USB port loaded at 500mA (GXV3140 with power adapter)
- USB port loaded at 1000mA (GXV3175 with power adapter)



Video Phone Technical Bulletin

Power Consumption of Video Phone Series 2

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

Item	Product	HW Version	Power Adapter (12VDC)				POE (46.9VDC)				Class Advertisement (IEEE 802.3at)
			Idle State Power (W)	Work State		MAX POWER (W)	Idle State Power (W)	Work State		MAX POWER (W)	
				State	Power (W)			State	Power (W)		
1	GXV3240	V1.7A	2.186	RING	2.718	7.5843	3.8155	RING	3.895	9.7166	4
				CALL	3.025			CALL	4.050		
				USB	6.011			USB	7.727		
2	GXV3240+1EXT	V1.7A	3.205	RING	3.605	8.7829	4.967	RING	4.940	10.8514	4
				CALL	4.097			CALL	5.202		
				USB	7.064			USB	9.051		
3	GXV3240+2EXT	V1.7A	4.2375	RING	4.707	9.8802	6.192	RING	6.245	12.0374	4
				CALL	5.111			CALL	6.531		
				USB	8.107			USB	10.134		
4	GXV3240+3EXT	V1.7A	5.2825	RING	5.749	10.8827	7.3345	RING	7.388	13.3248	4
				CALL	6.200			CALL	7.649		
				USB	9.098			USB	11.422		
5	GXV3240+4EXT	V1.7A	6.3505	RING	6.736	12.5563	8.5305	RING	8.531	14.6148	4
				CALL	7.438			CALL	8.774		
				USB	10.184			USB	12.528		
6	GXV3275	V1.4B	4.738	RING	5.100	13.818	6.766	RING	7.346	15.6490	4
				CALL	5.403			CALL	8.077		
				USB	10.325			USB	13.601		

Note:

- 1) The EXT is GXP2200EXT Extension Module.
- 2) Class Advertisement refers to Table 2 for IEEE 802.3at Classification at PD.

Table 2: PD Power Classification (IEEE 802.3at)

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

2. Test Condition Terminology

The following test condition terminology is used in Table 1.

• **Idle State**

- The phone has completed the boot-up process.
- The SIP application is running PCMU codec with SRTP.
- The idle screen is shown on the LCD.
- LCD Backlight is at normal brightness.

- **Work State**

- RING state:**

- The phone is set up as described in the Idle State.
 - The phone has an incoming call from another phone. The phone is ringing without answering it.

- CALL state:**

- The phone is set up as described in the Idle State.
 - The phone is calling to another phone.

- USB state:**

- The phone is set up as described in the Idle State.
 - The external USB device connected to phone's USB interface should be at the maximum power.

- **Power Not To Exceed**

- +nEXT means connect to n Extension Module(s), n=1,2,3,4.
 - EXT work condition: All Indicator LEDs are lighting up.
 - External USB device in maximum power.
 - EXT work condition: All Indicator LEDs are lighting up.
 - Maximum volume and maximum brightness level.
 - Playing video or music.



IP Surveillance Technical Bulletin

Power Consumption of IP Surveillance

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

ITEM	Product	Power Adapter Model			POE Model			Class Advertisement (IEEE 802.3af)
		Standby	Operating	Max Power	Standby	Operating	Max Power	
		Power(W)	Power(W)	Power(W)	Power(W)	Power(W)	Power(W)	
1	GXV3504	2.82	2.98	4.62	3.07	3.94	5.66	0
2	GXV3501	2.11	2.42	3.10	2.50	2.93	4.42	0
3	GXV3601_P	2.95	3.80	5.28	3.84	4.70	5.76	0
4	GXV3601_N	2.95	3.80	5.28	3.84	4.70	5.76	0
5	GXV3601_LL	3.00	3.90	4.96	3.84	4.70	5.76	0
6	GXV3601_HD	3.06	3.95	5.00	3.84	4.70	5.76	0
7	GXV3611_HD	2.70	4.10	6.67	3.36	4.20	6.80	0
8	GXV3611_LL	2.30	3.40	6.05	3.36	4.20	6.40	0
9	GXV3615	1.68	2.24	3.92	2.40	3.84	4.30	0
10	GXV3615W	2.16	3.03	4.48	N/A	N/A	N/A	N/A
11	GXV3651_FHD	1.71	2.68	5.12	2.22	3.36	6.21	0
12	GXV3662_HD	1.68	2.83	10.30	2.15	3.58	8.61	0
17	GXV3662_FHD	3.36	3.79	11.26	4.03	4.52	11.99	0
13	GXV3500	1.49	1.55	1.60	1.93	1.98	2.05	0
14	GXV3615WP_HD	2.48	2.54	3.34	3.45	3.65	5.12	0
15	GXV3610_HD	1.92	5.52	6.72	2.28	6.49	7.42	0
16	GXV3610_FHD	2.52	6.12	7.32	3.04	7.29	8.27	0
17	GXV3672_HD	2.00	5.61	6.74	2.51	6.63	7.57	0
18	GXV3672_FHD	2.61	6.20	7.41	3.27	7.47	8.45	0
19	GXV3672_HD_36	2.00	5.61	6.74	2.51	6.63	7.57	0
20	GXV3672_FHD_36	2.61	6.20	7.41	3.27	7.47	8.45	0
21	GXV3674_HD_VF	2.19	5.93	7.06	2.53	6.91	7.93	0
22	GXV3674_FHD_VF	2.86	6.52	7.72	3.34	7.65	8.58	0

2. Test Condition Terminology

The following test condition terminology is used in Table 1

• **Standby**

- The IP Surveillance has completed the boot-up process
- There is no Video input

• **Operating**

- The IP Surveillance is setup as described in the Idle State
- Video input /output/Audio are working
- The UUT is connected to PC with Web page logged in

• **Max Power**

- Maximum external devices connected to the IP Surveillance device



Network Video Recorder Technical Bulletin

Power Consumption of Enterprise Network Video Recorder Series

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

ITEM	Product	HW REVISION	SW REVISION	Power Adapter (12VDC)			
				Without HDD State	With HDDs State		MAX POWER CONSUMPTION Power (W)
					Power (W)	State	
1	GVR3550	V1.4A	1.0.0.62	4.2740W	2HDDs	14.6716W	65.994W
					4HDDs	22.6670W	

- Note:**
- 1). The hard disk used in the test is Seagate brand (ST1000DM003).
 - 2). In "With HDDs State" mode, the HDDs is in read or write mode.
 - 3). In "MAX POWER CONSUMPTION" mode, the HDDs is in boot mode.

2. Test Condition Terminology

The following test condition terminology is used in Table 1

• Without HDD State

- The NVR has completed the boot-up process.
- The idle screen was shown on the VGA Display.

• With HDDs State

- The NVR was setup in video mode.
- The NVR was connected with 16 road IP camera.
- The NVR was connected HDDs to save the video.

• Power Not to Exceed

- NVR work condition: All Indicator Camera and HDDs.
- External USB (500mA+ 1000mA) device in Max Power.
- 16 road channel decoding video surveillance video.
- The NVR is connected with 4 HDD.



ATA Technical Bulletin

Power Consumption of ATA Series

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

ITEM	Product	VER	Power Adapter Model			
			Standby	Operating	Max Power	
			Power (W)	Power (W)	3RENs Loaded	Power (W)
1	HT286		1.30	2.60	Europe	2.30
					America	3.00
2	HT486		1.80	3.00	Europe	3.50
					America	4.00
ITEM	Product	VER	Power Adapter Model			
			Standby	Operating	Max Power	
			Power(W)	Power(W)	3RENs Loaded	Power(W)
3	HT502	V2.0	2.26	3.36	Europe	4.43
					America	4.64
4	HT503		2.74	3.52	Europe	3.82
					America	4.32
ITEM	Product	VER	Power Adapter Model			
			Standby	Operating	Max Power	
			Power(W)	Power(W)	3RENs Loaded	Power(W)
5	HT701	V3.0	1.05	1.73	Europe	4.85
					America	3.95
6	HT702	V2.0	1.35	2.93	Europe	5.70
					America	6.05
7	HT704		1.60	4.21	Europe	4.57
					America	9.27
ITEM	Product	VER	Power Adapter Model			
			Standby	Operating	Max Power	
			Power(W)	Power(W)	3RENs Loaded	Power(W)
8	DP715 B/S		0.88W	1.0W	1.2W	
ITEM	Product	VER	2 rechargeable batteries(AAA, 1.2V/500mAh, NiMH)			
			Charging	Standby	Talking	
			Time(Hour)	Time(Hour)	Time(Hour)	
9	DP715 H/S DP710 H/S		16H	80H	10H	

2. Test Condition Terminology

The following test condition terminology is used in Table 1.

• **Standby**

- The ATA has completed the boot-up process.
- The SIP application is running using PCMA codec with SRTP.
- No established call and no incoming ring.

• **Operating**

- The ATA is set up as described in the Idle State.
- The maximum number of calls are established for each Unit Under Test (UUT).
- The Phone connected to UUT FXS port is working at Handfree mode and set to maximum volume.

• **Max Power**

- 3RENs loaded on each FXS port of UUT and ring established for all HT7xx except HT701.



Gateway Technical Bulletin

Power Consumption of Gateway Series

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

ITEM	Product	Version	Power Adapter Model			
			Standby	Operating	Max Power	
			Power (W)	Power (W)	3RENs Loaded	Power (W)
1	GXW4004		3.60	6.10	Europe	6.21
					America	8.92
2	GXW4008		7.63	12.06	Europe	12.18
					America	17.72
3	GXW4024		20.40	24.30	Europe	23.99
					America	43.36

ITEM	Product	Version	Power Adapter Model		
			Standby	Operating	Max Power
			Power(W)	Power(W)	Power(W)
4	GXW4104		3.58	3.78	3.78
5	GXW4108		3.91	4.27	4.27

ITEM	Product	Version	Power Adapter Model			
			Standby	Operating	Max Power	
			Power(W)	Power(W)	2RENs Loaded	Power(W)
6	GXW4216		2.69	15.31	Europe	24.00
					America	26.40
7	GXW4224		4.00	22.58	Europe	36.79
					America	39.38
8	GXW4232		4.15	29.59	Europe	43.70
					America	46.02
9	GXW4248	V1.0A	5.20	9.00	Europe	45.50
					America	50.90

Note:

- 1) GXW4216/24/32/48 is running with IP call.
- 2) GXW4216/24/32 has a Fan (MAX current: 92mA); GXW4248 has two fans. Fan is off in the test.

2. Test Condition Terminology

The following test condition terminology is used in Table 1.

• **Standby**

- The device has completed the boot-up process.
- The SIP application is running PCMA codec with SRTP.
- No established call or incoming ring.

• **Operating**

- The device is setup as described in the Idle State.
- The maximum number of calls are established for each Unit Under Test (UUT).
- The Phone connected to UUT FXS port is working at Handfree mode and set to maximum volume.
- 1 Phone connected to GXW4248 FXS port is working at Handfree mode and set to maximum volume.

• **Max Power**

- 3RENs loaded on each FXS port of UUT and ring established for all GXW40XX.
- 2RENs loaded on each FXS port of UUT and ring established for all GXW42XX.
- 1REN loaded on each FXS port of UUT and ring established for all GXW4248.



IPPBX Technical Bulletin

Power Consumption of IPPBX Series

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

ITEM	Product	Power Adapter (12VDC)				POE (48VDC)				Class Advertisement (IEEE 802.3af)
		Idle State	Work State	Power Not to Exceed		Idle State	Work State	Power Not to Exceed		
		Power(W)	Power(W)	FXS Port Loaded	Power(W)	Power(W)	Power(W)	FXS Port Loaded	Power(W)	
1	GXE5024	4.20	6.22	Europe	6.72	5.64	7.68	Europe	8.11	0
				America	8.01			America	10.11	
2	GXE5028	4.95	6.75	Europe	7.60	6.32	8.11	Europe	8.21	0
				America	8.68			America	9.94	
3	UCM6102/4	5.33	9.57	America	9.57	7.38	11.66	America	11.66	4
4	UCM6108/16	6.06	10.31	America	10.31	7.6	12.18	America	12.18	4
5	UCM6510	9.88	17.84	America	17.84	9.35	21.12	America	21.12	4

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	Optional	12.95 to 25.5W
5	Not Allowed	Reserved for future use (for example: IEEE802.3af)

3. Test Condition Terminology

The following test condition terminology is used in Table 1.

• **Idle State**

- The IPPBX has completed the boot-up process
- The SIP application is running PCMA codec with SRTP
- No call state established or incoming ring

• **Work State**

- The IPPBX is setup as described in the Idle State.
- The maximum number of calls are established for each Unit Under Test (UUT)
- USB port loaded at 200mA

• **Power Not to Exceed**

- 3RENS loaded on each FXS port of UUT and ring established (GXE50XX)
- 1REN loaded on each FXS port of UUT and ring established (UCM61XX)
- USB port loaded at 500mA