Grandstream Networks, Inc.

UCM6xxx IPPBX Series

Technical Bulletin - Power Consumption

DOCUMENT PURPOSE

This document is a technical bulletin describing power consumption details for UCM6xxx IPPBX Series.

UCM6xxx IPPBX series can be powered via

- Universal power supply: Input AC 100-240VAC 50/60Hz; Output 12VDC, 1.5A
- PoE: IEEE802.3at

TEST CONDITION TERMINOLOGY

The following test condition terminology was 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 Exceed**
  - 1REN loaded on each FXS port of UUT and ring established.
  - USB port loaded at 680mA.

1. Power Dissipation

Table 1: Power Dissipation and Advertisement

Product	Power Adapter (12VDC)				PoE (48VDC)				Class Advertisement (IEEE 802.3at)
	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)	
UCM6100 Series									
UCM6102/04	5.33	9.57	America	9.57	7.38	11.66	America	11.66	4
UCM6108/16	6.06	10.31	America	10.31	7.6	12.18	America	12.18	4
UCM6510									
UCM6510	9.88	17.84	America	17.84	9.35	21.12	America	21.12	4
UCM6200 Series									
UCM6202	5.90	8.10	America	16.8	7.4	9.70	America	20.4	4
UCM6204	6.00	8.12	America	16.5	7.80	9.40	America	21.0	4
UCM6208	6.10	9.11	America	17.4	8.80	10.9	America	22.4	4

2. PD Power Classification

Table 2: PD Power Classification (IEEE 802.3at)

Class	Usage	Max Power Range used by the PD (IPPBX)
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