

## PI7C9X2G404SL / PI7C9X2G304SL / PI7C9X2G404EL / PI7C9X2G304EL / PI7C9X2G303EL Gen2 PCIe® 4-Port 4-Lane / 3-Port 4-Lane SlimLine™ / 4-Port 4-Lane / 3-Port 4-Lane / 3-Port 3-Lane UltraLo™ Packet Switch Power Consumption

### Power Consumption of PI7C9X2G404SL / PI7C9X2G304SL / PI7C9X2G404EL / PI7C9X2G304EL / PI7C9X2G303EL

The following tables list the power consumption of each power rail used by the PI7C9X2G404SL / PI7C9X2G304SL / PI7C9X2G404EL / PI7C9X2G304EL / PI7C9X2G303EL Gen2 PCIe® 4-Port 4-Lane / 3-Port 4-Lane SlimLine™ / 4-Port 4-Lane / 3-Port 4-Lane / 3-Port 3-Lane UltraLo™ Packet Switch in Gen1 and Gen2 modes. This information can be taken into consideration for system design and power budget.

**Table 1. PI7C9X2G404SL / PI7C9X2G304SL / PI7C9X2G404EL / PI7C9X2G304EL / PI7C9X2G303EL Power Consumption in Gen1 Mode with External Clock Buffer**

Normal mode	Empty				Full-Loading			
	Normal Mode		S1 Mode		Normal Mode		S1 Mode	
	mA	mW	mA	mW	mA	mW	mA	mW
1.0VDDC	116.6	116.6	52.8	52.8	289.3	289.3	125.4	125.4
1.0VAUX	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
1.0AVDD	130.9	130.9	84.7	84.7	295.9	295.9	141.9	141.9
3.3AVDDH	10.7	35.3	10.7	35.3	10.7	35.3	10.7	35.3
3.3VDDR	2.2	7.3	2.2	7.3	2.2	7.3	2.2	7.3
3.3VAUX	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03
<b>Total (mW)</b>	<b>293</b>		<b>183</b>		<b>631</b>		<b>313</b>	

**Table 2. PI7C9X2G404SL / PI7C9X2G304SL / PI7C9X2G404EL / PI7C9X2G304EL / PI7C9X2G303EL Power Consumption in Gen1 Mode with Internal Clock Buffer**

Normal mode	Empty				Full-Loading			
	Normal Mode		S1 Mode		Normal Mode		S1 Mode	
	mA	mW	mA	mW	mA	mW	mA	mW
1.0VDDC	121	121	57.2	57.2	294.8	294.8	129.8	129.8
1.0VAUX	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
1.0AVDD	129.8	129.8	84.7	84.7	295.9	295.9	141.9	141.9
3.3AVDDH	10.7	35.3	10.7	35.3	10.7	35.3	10.7	35.3
3.3VDDR	96.8	319.4	96.8	319.4	96.8	319.4	96.8	319.4
3.3VAUX	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03
<b>Total (mW)</b>	<b>609</b>		<b>500</b>		<b>949</b>		<b>630</b>	

**Table 3. PI7C9X2G404SL/ PI7C9X2G304SL/ PI7C9X2G404EL/ PI7C9X2G304EL/ PI7C9X2G303EL Power Consumption in Gen2 Mode with External Clock Buffer**

Normal mode	Empty				Full-Loading			
	Normal Mode		S1 Mode		Normal Mode		S1 Mode	
	mA	mW	mA	mW	mA	mW	mA	mW
1.0VDDC	123.2	123.2	57.2	57.2	295.9	295.9	128.7	128.7
1.0VAUX	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
1.0AVDD	140.8	140.8	84.7	84.7	306.9	306.9	141.9	141.9
3.3AVDDH	10.7	35.3	10.7	35.3	10.7	35.3	10.7	35.3
3.3VDDR	2.2	7.3	2.2	7.3	2.2	7.3	2.2	7.3
3.3VAUX	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03
<b>Total (mW)</b>	<b>310</b>		<b>188</b>		<b>649</b>		<b>316</b>	

**Table 4. PI7C9X2G404SL/ PI7C9X2G304SL/ PI7C9X2G404EL/ PI7C9X2G304EL/ PI7C9X2G303EL Power Consumption in Gen2 Mode with Internal Clock Buffer**

Normal mode	Empty				Full-Loading			
	Normal Mode		S1 Mode		Normal Mode		S1 Mode	
	mA	mW	mA	mW	mA	mW	mA	mW
1.0VDDC	125.4	125.4	61.6	61.6	298.1	298.1	134.2	134.2
1.0VAUX	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
1.0AVDD	140.8	140.8	84.7	84.7	305.8	305.8	141.9	141.9
3.3AVDDH	10.7	35.3	10.7	35.3	10.7	35.3	10.7	35.3
3.3VDDR	96.8	319.4	96.8	319.4	96.8	319.4	96.8	319.4
3.3VAUX	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03
<b>Total (mW)</b>	<b>624</b>		<b>504</b>		<b>962</b>		<b>634</b>	

## Test Conditions:

- Platform: Intel DSG45
- Empty: No cards are plugged into the downstream ports.
- Full-loading with Gen1 devices: 1 PCIe to USB Card (connects to 4 USB HDDs), 1 PCIe LAN Card, and 1 PCIe SATA Card\* are plugged into the downstream ports.
- Full-loading with Gen2 devices: 2 NEC GEN2 PCIe-to-USB3.0 Cards, and 1 Marvell SATA 6G Card\*
  - \* These end devices are not used in PI7C9X2G304SL/ PI7C9X2G304SL/ PI7C9X2G303EL power measurement