Base station secondary power supply

What is a 3G base station converter?
In a 3G Base Station application, two converters are used to provide the +27V distribution bus voltage during normal conditions and power outages.

What is a preferred power supply architecture for DSL applications?
A preferred power supply architecture for DSL applications is illustrated in Fig. 2. A push-pull converteris used to convert the 48V input voltage to +/-12V and to provide electrical isolation. Synchronous buck converters powered off of the +12V rail generate various low-voltage outputs.

What is a low profile power supply?
Low profile power supply design usually includes printed circuit board(planar) power transformers and output inductors and surface mount input and output capacitors. Multiple output power supplies are often implemented with a multi-output flyback converter.

What types of power systems are used in communications infrastructure equipment?
Communications infrastructure equipment employs a variety of power system components. Power factor corrected (PFC) AC/DCpower supplies with load sharing and redundancy (N+1) at the front-end feed dense,high efficiency DC/DC modules and point-of-load converters on the back-end.

How much power does a PSU need?
This is when the PSU is no longer powering the PA, which is the main power draw, but still needs to power other electronics. The current target for low-load efficiency is about 30 W. Some OEMs would like to see that drop to nearly 10 W.

How much power does a PSU need during a quiescent period?
During quiescent periods--typically 5 ms to 100 ms--the PSU must minimize all load power with the basic functions of the antenna unit remaining active. It also must be able to ramp up to full power whenever the antenna wants to check for any active users within its range.

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These tools simplify the task of selecting the right power management solutions for these devices and, thereby, provide an optimal power solution for 5G base stations components.

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