## **Tech Brief**



## Attenuator Family Goes Green

PINNER has developed the Green Line series of symmetrical attenuators in the medium output range of 25 to 200 W. At the heart of this new development is an aluminium nitride (AlN) ceramic material that is used as the medium substrate. Compared to other ceramics with similar properties, this ceramic is environmentally friendly to manufacture, process and with regards to waste disposal.

Another 'saving' feature of this new development is the use of identical parts across the series, which guarantees quick availability over all power ratings and attenuation classes. The ceramics coated with the different attenuation values are installed into just one base body. The appropriate heat sinks are applied depending on power rating, although the 25 W models do not require a heat sink. The available standard connectors are N male/female and 7-16 male/female.

The attenuators are available in 25, 50, 100 and 200 W power ratings and are supplied with the attenuation values 3, 6, 10, 20, 30 and 40 dB. The whole mobile communication range has been covered thanks to the broadband development of DC to 4 GHz, optionally to 6 GHz. This means the attenuators can be used universally in many high frequency systems.

From a manufacturing standpoint, a Kanban system is used for assembly,

which enables the quick and constant ability to supply even with fluctuating throughput. Also, the slim and compact structure of the attenuators enables them to be installed into the tightest of spaces, while the modular design approach means that a large variety of types can be offered, in conjunction with fast delivery capabilities.

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## PHASE NOISE QUESTION: How ACCURATE is the DATA?



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