

Single output isolated 120W DC-DC Boost Converter Module



- **Wide input supply**
18Vdc – 30Vdc
- **Maximum output power 120W**
- **36V to 57V Output**
- **Industrial Temperature Range**
- **Small SMT footprint**
- **1.5kV DC impulse isolation**
- **Over current, Thermal & Short Circuit Protection**
- **High efficiency (91%)**
- **Low noise and output ripple**
- **Fully Surface Mount**

The Ag7300 module is a low noise DC-DC Boost Converter designed to generate the voltages required wherever an isolated 48V supply needs to be provided from a lower voltage e.g. for IEEE802.3 PoE PSE, telecom or automotive applications. This is a high efficiency module (91%) which provides full compatibility with power and isolation requirements such as IEEE802.3bt; all in a low cost, compact SMT footprint package. With minimal extra components needed, circuit design is straightforward.

The module accepts a wide DC voltage input range from 18V to 30V, providing

added versatility. The input voltage is then boosted to generate the higher voltage required, for example, powering Silvertel's Ag6800 or other compatible PSE circuits. Continuous power of up to 120W can be supplied at up to 85°C. The Ag7300 provides a regulated low ripple adjustable output, through the simple addition of a programming resistor, from 36V right up to 57V.

The module uses a transformer to provide the necessary 1.5kV isolation between input and output connections to meet the requisite IEEE PoE safety and isolation requirements.

Ag7300 has been designed to provide an easy-to-integrate solution for powering the Silvertel Ag6800 PSE in POE 802.3bt applications from a 24V on-board supply, vehicle battery, 24V plug-top PSU or other commonly available power sources. Its low cost, wide input voltage range, high output power, high efficiency, wide operating temperature range and in-built isolation make it an extremely versatile DC-DC boost converter for any other distributed power application.

