



# COMMUNICATION COMPONENTS INC

*Extending*

*Wireless*

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## **GSM/EDGE Dual Amplifier Booster Combiner**

### **CCI Model Number DAC-1819-125-G2**

### **USER'S GUIDE**

#### **Product Description:**

##### **DAC-1819-125-G2 Dual Amplifier Booster/ Combiner:**

The CCI GSM Dual Amplifier-Booster Combiner Module (DAC) consists of two linear power amplifiers with intermodulation level control circuitry, each capable of generating a 125 Watt GSM/EDGE signal. The Dual Amplifier-Combiner Module (DAC) contains a passive hybrid combiner at the output which combines both signals to provide two 60 Watt GSM/EDGE signals on a common output.

#### **Operation Description:**

The DAC-1819-125-G2 Dual Amplifier Booster/ Combiner is designed to supply a nominal output power level of 60 Watts (48 dBm) per channel. Although the gain of the Dual Amplifier Booster/ Combiner is fixed, the output can be adjusted by setting the input power level.

#### **Operation and Installation Instructions:**

The following instructions should be followed when installing the unit in service:

- Apply a 26-30VDC input voltage to the DC Input connector of the Dual Amplifier-Booster/Combiner Module.
- Insure that the DC Source is capable of delivering up to 30 Amps at 28VDC.
- Apply a GSM/EDGE signal of up to +41dBm to each RF input port of the Dual Amplifier-Booster/Combiner Module.

**NOTE: When operated with GSM or EDGE modulation on channels 1930.2 MHz and 1989.8 MHz the rf input level must be adjusted such that the rf output power does not exceed 2 watts (+33 dBm).**

- The Dual Amplifier-Booster/Combiner Module will provide approximately 7dB or less of RF Gain.

- Check the RF output to insure the proper output power is present. {Approximately 60 Watts (48dBm) per channel}.
- Adjust the input power level to insure the output power level is in compliance with the values indicated in the table on page 2.
- Install the Alarm Connector to the Alarm Output connector of the Dual Amplifier-Booster/Combiner Module.

**Setting the RF Output Power on the DAC-1819-125-G2 Booster Amplifier**

**NOTE: When operated with GSM or EDGE modulation on channels 1930.2 MHz and 1989.8 MHz the rf input level must be adjusted such that the rf output power does not exceed 2 watts (+33 dBm).**

The RF output power is not adjustable on the DAB & DAC Booster Amplifier. The user must adjust the RF input power to the Booster Amplifier such that the RF output power level does not exceed the levels shown below in order for the RF output spectral emissions to be compliant with the FCC spurious emissions limit of -13 dBm outside of the assigned frequency block. **These levels must not be exceeded.**

Channel Center Frequency (MHz)	Maximum RF Output (Watt)*
<b>1930.2-1989.8</b>	<b>100</b>
<b>1930.2(GSM/EDGE)</b>	<b>2</b>
<b>1989.8(GSM/EDGE)</b>	<b>2</b>

\* Note: The Maximum RF Output Power is after any passive losses after the Booster Amplifier such as filters and cables.

This equipment complies with Part 24 of the FCC rules. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

In order to comply with FCC rules for RF exposure, it must be observed that the antenna connected to this equipment be fixed on an outdoor structure and that it must have a minimum separation distance of 10 meters between it and any person."