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DESCRIPTION OF DESIGN AND/OR PROCESS CHANGE

Implementation Date:

Immediate

Part Numbers of Products Affected:

CGHV96100F2

Description of Change:

In order to eliminate the possibility of oscillation at -40°C at certain frequencies, Cree made changes to the design of the CGHV96100F2. A resistor was added to the input substrate. The combining circuit on the output substrate was also slightly modified. All other metallization on the substrates is the same. There is no impact to device reliability.

Parameter	Symbol	Min.	Typical	Max.	Units	Previous Test Condition	New Test Conditions
Small Signal Gain	S21	10.5	12.4	-	dB	V_{DD} = 40 V, I_{DQ} = 1000 mA, P_{IN} = -20 dBm	No change
Power Output	P_{OUT}	100	131	-	W	V_{DD} = 40 V, I_{DQ} = 1000 mA, P_{IN} = 41 dBm	V_{DD} = 40 V, I_{DQ} = 1000 mA, **P_{IN} = 41.75 dBm**
Power Added Efficiency	PAE	30	45	-	%	V_{DD} = 40 V, I_{DQ} = 1000 mA, P_{IN} = 41 dBm	V_{DD} = 40 V, I_{DQ} = 1000 mA, **P_{IN} = 41.75 dBm**
Power Gain	P_G	-	10.2	-	dB	V_{DD} = 40 V, I_{DQ} = 1000 mA, P_{IN} = 41 dBm	V_{DD} = 40 V, I_{DQ} = 1000 mA, **P_{IN} = 41.75 dBm**

Table 1. RF Conditions (Excerpt from Page 2 of the Data Sheet)

Refer to the drawings below for additional information.

Figure 1. Overall View::

Before **After**

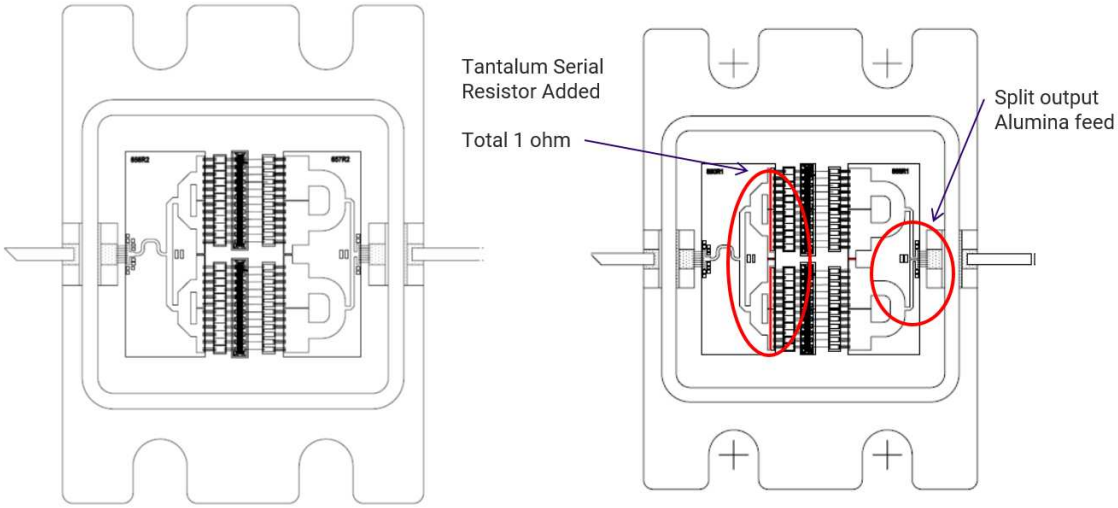

Figure 2. Detailed View of the Input Substrate::

Before **After**

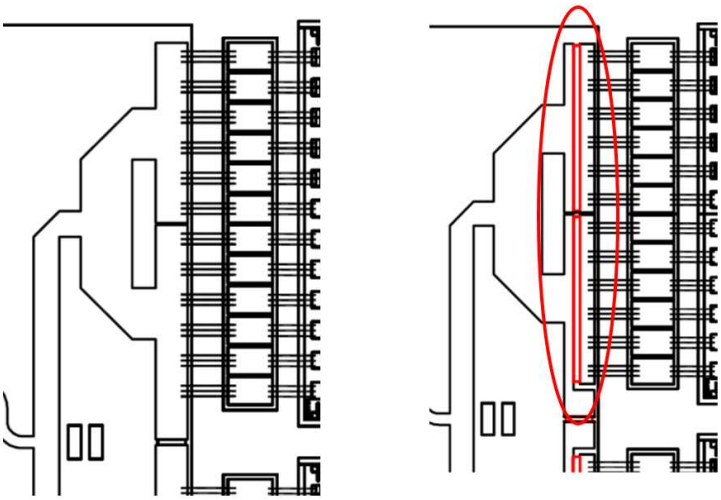

Figure 3. Detailed View of the Output Substrate::

Before **After**