



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Mail Stop 3030

May 11, 2016

Via E-mail

Murugesan Shanmugaraj
President and Chief Executive Officer
Acacia Communications, Inc.
Three Clock Tower Place, Suite 100
Maynard, Massachusetts 01754

**Re: Acacia Communications, Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed May 2, 2016
File No. 333-208680**

Dear Mr. Shanmugaraj:

We have reviewed your amended registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

We depend on a limited number of customers, page 11

1. You state that ZTE Corporation accounted for 32.1%, 35.4%, 27.6% and 46.3% of your revenue in 2013, 2014, 2015 and the three month period ended March 31, 2016, respectively. We are aware of publicly available information indicating that ZTE Corporation has re-exported items of U.S. origin to Iran, Sudan and Syria, countries designated by the State Department as state sponsors of terrorism and subject to U.S. economic sanctions and export controls. You do not include disclosure about contacts with Iran, Sudan or Syria. Please describe to us the nature and extent of any past, current and anticipated contacts with Iran, Sudan and Syria, whether through direct or indirect arrangements, including any involving ZTE Corporation. You should describe any products, services or technology you have provided into Iran, Sudan and Syria, directly or indirectly, and any agreements, commercial arrangements or other contacts you have had with the governments of those countries or entities they control.

2. Please discuss for us the materiality of any contacts with Iran, Sudan and Syria you describe in response to the comment above, and whether the contacts constitute a material investment risk for your security holders. You should address materiality in quantitative terms, including the approximate dollar amounts of any revenues, assets and liabilities associated with Iran, Sudan and Syria for the last three fiscal years and the subsequent interim period. Also, address materiality in terms of qualitative factors that a reasonable investor would deem important in making an investment decision, including the potential impact of corporate activities upon a company's reputation and share value. Various state and municipal governments, universities and other investors have proposed or adopted divestment or similar initiatives regarding investment in companies that do business with U.S.-designated state sponsors of terrorism. You should address the potential impact of the investor sentiment evidenced by such actions directed toward companies that have operations associated with Iran, Sudan and Syria.
3. You state that the loss or temporary loss of ZTE Corporation as a customer could materially harm your business, financial condition, results of operations and prospects. Information published by the Commerce Department and reported by various news organizations in March 2016 indicates that ZTE Corporation has re-exported controlled items to sanctioned countries contrary to U.S. law, and that it planned and organized a scheme to establish, control and use a series of shell companies to re-export controlled items to Iran in violation of U.S. export control laws. Please discuss the possibility that this information will have adverse reputational and other effects upon you because of your relationship with ZTE Corporation.

You may contact Julie Sherman at (202) 551-3640 or Brian Cascio, Accounting Branch Chief, at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Tom Jones at (202) 551-3602 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Mark G. Borden, Esq.