

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common stock, \$0.001 par value	452,097 shares (2)	\$1.44 (3)	\$651,020	\$74.61
Common stock, \$0.001 par value	447,903 shares (4)	\$0.71(5)	\$318,011	\$36.44
Total	900,000 shares		\$969,031	\$111.05

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- (1) Plus such indeterminate number of shares of Common Stock of the Registrant as may be issued to prevent dilution resulting from stock dividends, stock splits or similar transactions in accordance with Rule 416 under the Securities Act of 1933 (the "Securities Act").
- (2) Represents shares of common stock issuable upon exercise of stock options available for grant pursuant to the Bridgeline Digital, Inc. Amended and Restated Stock Incentive Plan.
- (3) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(h)(1) under the Securities Act, using the average of the high and low sales price as reported on the Nasdaq Capital Market on May 21, 2012.
- (4) Represents shares of common stock issuable upon exercise of stock options granted pursuant to the Bridgeline Digital, Inc. Amended and Restated Stock Incentive Plan.
- (5) Calculated pursuant to Rule 457(h)(1) under the Securities Act based on the weighted average exercise price per share of such options outstanding under the Bridgeline Digital, Inc. Amended and Restated Stock Incentive Plan.
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EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 900,000 shares of Bridgeline Digital, Inc. common stock to be issued pursuant to the Bridgeline Digital, Inc. Amended and Restated Stock Incentive Plan (the “Plan”). These shares are in addition to the aggregate of 2,394,001 shares of common stock registered under the Plan pursuant to the Registration Statement on Form S-8, File No. 333-170819.

The contents of our Registration Statement on Form S-8, File No. 333-170819, are incorporated herein by reference.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 8. EXHIBITS.

The exhibits filed as part of this Registration Statement are as follows:

Exhibit Number	Description
4.1	Amended and Restated Certificate of Incorporation of Bridgeline Digital, Inc. (incorporated by reference to Exhibit 3.1 to Registration Statement on Form SB-2, File No. 333-139298).
4.2	Certificate of Amendment to Certificate of Incorporation of Bridgeline Digital, Inc., dated March 19, 2010 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Commission on March 24, 2010).
4.3	Amended and Restated By-laws of Bridgeline Digital, Inc. (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed with the Commission on January 27, 2011).
4.4	Amended and Restated Stock Incentive Plan (incorporated by reference to Appendix B of the Company’s Proxy Statement filed with the Commission on February 28, 2012).
5.1*	Legal Opinion of Morse, Barnes-Brown & Pendleton, P.C.
23.1*	Consent of Marcum LLP
23.2	Consent of Morse, Barnes-Brown & Pendleton, P.C. (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page)

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Burlington, Massachusetts, on this 24th day of May, 2012.

Bridgeline Digital, Inc.

By: /s/Thomas L.

Massie

Thomas L. Massie

President and Chief Executive Officer

(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Thomas L. Massie and Michael D. Prinn, and each of them acting individually, his true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments filed pursuant to Rule 462, or otherwise) of and supplements to this registration statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the U.S. Securities and Exchange Commission, granting unto each such attorney-in-fact and agent, or his substitutes, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, to all intents and purposes and as fully as he might or could do in person, hereby ratifying and confirming all that each such attorney-in-fact and agent, or his substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated as of May 24, 2012.

Signature	Date	Title
/s/Thomas L. Massie Thomas L. Massie	May 24, 2012	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/Michael D. Prinn Michael D. Prinn	May 24, 2012	Senior Vice President Finance and Chief Accounting Officer (Principal Financial and Accounting Officer)
/s/John Cavalier	May 24, 2012	Director

John Cavalier

Director

Kenneth Galaznik

/s/Robert Hegarty
Robert Hegarty

May 24, 2012

Director

/s/Joni Kahn
Joni Kahn

May 24, 2012

Director

/s/Scott Landers
Scott Landers

May 24, 2012

Director

INDEX TO EXHIBITS

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