



MCP1726

Evaluation Board

User's Guide

Note the following details of the code protection feature on Microchip devices:

- Microchip products meet the specification contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is one of the most secure families of its kind on the market today, when used in the intended manner and under normal conditions.
- There are dishonest and possibly illegal methods used to breach the code protection feature. All of these methods, to our knowledge, require using the Microchip products in a manner outside the operating specifications contained in Microchip's Data Sheets. Most likely, the person doing so is engaged in theft of intellectual property.
- Microchip is willing to work with the customer who is concerned about the integrity of their code.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of their code. Code protection does not mean that we are guaranteeing the product as "unbreakable."

Code protection is constantly evolving. We at Microchip are committed to continuously improving the code protection features of our products. Attempts to break Microchip's code protection feature may be a violation of the Digital Millennium Copyright Act. If such acts allow unauthorized access to your software or other copyrighted work, you may have a right to sue for relief under that Act.

Information contained in this publication regarding device applications and the like is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications. MICROCHIP MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, STATUTORY OR OTHERWISE, RELATED TO THE INFORMATION, INCLUDING BUT NOT LIMITED TO ITS CONDITION, QUALITY, PERFORMANCE, MERCHANTABILITY OR FITNESS FOR PURPOSE. Microchip disclaims all liability arising from this information and its use. Use of Microchip's products as critical components in life support systems is not authorized except with express written approval by Microchip. No licenses are conveyed, implicitly or otherwise, under any Microchip intellectual property rights.

Trademarks

The Microchip name and logo, the Microchip logo, Accuron, dsPIC, KEELoQ, microID, MPLAB, PIC, PICmicro, PICSTART, PRO MATE, PowerSmart, rPIC, and SmartShunt are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

Amplab, FilterLab, Migratable Memory, MXDEV, MXLAB, PICMASTER, SEEVAL, SmartSensor and The Embedded Control Solutions Company are registered trademarks of Microchip Technology Incorporated in the U.S.A.

Analog-for-the-Digital Age, Application Maestro, dsPICDEM, dsPICDEM.net, dsPICworks, ECAN, ECONOMONITOR, FanSense, FlexROM, fuzzyLAB, In-Circuit Serial Programming, ICSP, ICEPIC, MPASM, MPLIB, MPLINK, MPSIM, PICKit, PICDEM, PICDEM.net, PICLAB, PICTail, PowerCal, PowerInfo, PowerMate, PowerTool, rfLAB, rfPICDEM, Select Mode, Smart Serial, SmartTel, Total Endurance and WiperLock are trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

SQTP is a service mark of Microchip Technology Incorporated in the U.S.A.

All other trademarks mentioned herein are property of their respective companies.

© 2005, Microchip Technology Incorporated, Printed in the U.S.A., All Rights Reserved.

 Printed on recycled paper.

QUALITY MANAGEMENT SYSTEM
CERTIFIED BY DNV
== ISO/TS 16949:2002 ==

Microchip received ISO/TS-16949:2002 quality system certification for its worldwide headquarters, design and wafer fabrication facilities in Chandler and Tempe, Arizona and Mountain View, California in October 2003. The Company's quality system processes and procedures are for its PICmicro® 8-bit MCUs, KEELoQ® code hopping devices, Serial EEPROMs, microperipherals, nonvolatile memory and analog products. In addition, Microchip's quality system for the design and manufacture of development systems is ISO 9001:2000 certified.

Table of Contents

Preface	1
Chapter 1. Product Overview	5
1.1 Introduction	5
1.2 What is the MCP1726 1A LDO Evaluation Board?	6
1.3 What the MCP1726 1A LDO Evaluation Board Kit Includes	6
Chapter 2. Installation and Operation	7
2.1 Introduction	7
2.2 Features	7
2.3 Getting Started	7
2.4 Testing Circuit 1 of the MCP1726 1A LDO Evaluation Board	8
2.5 Testing Circuit 2 of the MCP1726 1A LDO Evaluation Board	10
Appendix A. Schematics and Layouts	13
A.1 Introduction	13
A.2 Highlights	13
Appendix B. Bill-Of-Materials (BOM)	19
Worldwide Sales and Service	20

MCP1726 Evaluation Board User's Guide

NOTES:

Preface

NOTICE TO CUSTOMERS

All documentation becomes dated, and this manual is no exception. Microchip tools and documentation are constantly evolving to meet customer needs, so some actual dialogs and/or tool descriptions may differ from those in this document. Please refer to our web site (www.microchip.com) to obtain the latest documentation available.

Documents are identified with a “DS” number. This number is located on the bottom of each page, in front of the page number. The numbering convention for the DS number is “DSXXXXXA”, where “XXXXX” is the document number and “A” is the revision level of the document.

INTRODUCTION

This chapter contains general information that will be useful to know before using the MCP1726 1A LDO Evaluation Board. Items discussed in this chapter include:

- Document Layout
- Conventions Used in this Guide
- Recommended Reading
- The Microchip Web Site
- Customer Support
- Document Revision History

DOCUMENT LAYOUT

This document describes how to use the MCP1726 1A LDO Evaluation Board. The manual layout is as follows:

- **Chapter 1. “Product Overview”** – Important information about the MCP1726 1A LDO Evaluation Board.
- **Chapter 2. “Installation and Operation”** – Includes instructions on how to get started with this evaluation board and a description of the evaluation board operation.
- **Appendix A. “Schematics and Layouts”** – Shows the schematic and layout diagrams for the MCP1726 1A LDO Evaluation Board.
- **Appendix B. “Bill-Of-Materials (BOM)”** – Lists the parts used to build the MCP1726 1A LDO Evaluation Board.

MCP1726 Evaluation Board User's Guide

CONVENTIONS USED IN THIS GUIDE

This manual uses the following documentation conventions:

DOCUMENTATION CONVENTIONS

Description	Represents	Examples
Arial font:		
Italic characters	Referenced books	<i>MPLAB[®] IDE User's Guide</i>
	Emphasized text	...is the <i>only</i> compiler...
Initial caps	A window	the Output window
	A dialog	the Settings dialog
	A menu selection	select Enable Programmer
Quotes	A field name in a window or dialog	"Save project before build"
Underlined, italic text with right angle bracket	A menu path	<u><i>File>Save</i></u>
Bold characters	A dialog button	Click OK
	A tab	Click the Power tab
Text in angle brackets < >	A key on the keyboard	Press <Enter>, <F1>
Courier font:		
Plain Courier	Sample source code	#define START
	Filenames	autoexec.bat
	File paths	c:\mcc18\h
	Keywords	_asm, _endasm, static
	Command-line options	-Opa+, -Opa-
	Bit values	0, 1
	Constants	0xFF, 'A'
Italic Courier	A variable argument	<i>file.o</i> , where <i>file</i> can be any valid filename
Square brackets []	Optional arguments	mcc18 [options] <i>file</i> [options]
Curly brackets and pipe character: { }	Choice of mutually exclusive arguments; an OR selection	errorlevel {0 1}
Ellipses...	Replaces repeated text	var_name [, var_name...]
	Represents code supplied by user	void main (void) { ... }

RECOMMENDED READING

This user's guide describes how to use MCP1726 1A LDO Evaluation Board. The following Microchip documents are available and recommended as supplemental reference resources.

MCP1726 Data Sheet, "1A, Low-Voltage, Low Quiescent Current LDO Regulator", DS21936

This data sheet provides detailed information regarding the MCP1726 product family.

THE MICROCHIP WEB SITE

Microchip provides online support via our web site at www.microchip.com. This web site is used as a means to make files and information easily available to customers. Accessible by using your favorite Internet browser, the web site contains the following information:

- **Product Support** – Data sheets and errata, application notes and sample programs, design resources, user's guides and hardware support documents, latest software releases and archived software
- **General Technical Support** – Frequently Asked Questions (FAQs), technical support requests, online discussion groups, Microchip consultant program member listing
- **Business of Microchip** – Product selector and ordering guides, latest Microchip press releases, listing of seminars and events, listings of Microchip sales offices, distributors and factory representatives

CUSTOMER SUPPORT

Users of Microchip products can receive assistance through several channels:

- Distributor or Representative
- Local Sales Office
- Field Application Engineer (FAE)
- Technical Support
- Development Systems Information Line

Customers should contact their distributor, representative or field application engineer (FAE) for support. Local sales offices are also available to help customers. A listing of sales offices and locations is included in the back of this document.

Technical support is available through the web site at: <http://support.microchip.com>

In addition, there is a Development Systems Information Line which lists the latest versions of Microchip's development systems software products. This line also provides information on how customers can receive currently available upgrade kits.

The Development Systems Information Line numbers are:

1-800-755-2345 – United States and most of Canada

1-480-792-7302 – Other International Locations

DOCUMENT REVISION HISTORY

Revision A (April 2005)

- Initial Release of this Document.

MCP1726 Evaluation Board User's Guide

NOTES:

Chapter 1. Product Overview

1.1 INTRODUCTION

The MCP1726 1A LDO Evaluation Board is used to evaluate the Microchip MCP1726 1A, low voltage, low-quiescent current, Low-Dropout (LDO) regulator. This evaluation board contains two circuits, one for the 8-pin DFN package and one for the 8-pin SOIC package. Each circuit allows the user to evaluate the adjustable or fixed-voltage version of the part.

This chapter also covers the following topics:

- What is the MCP1726 1A LDO Evaluation Board?
- What the MCP1726 1A LDO Evaluation Board kit includes

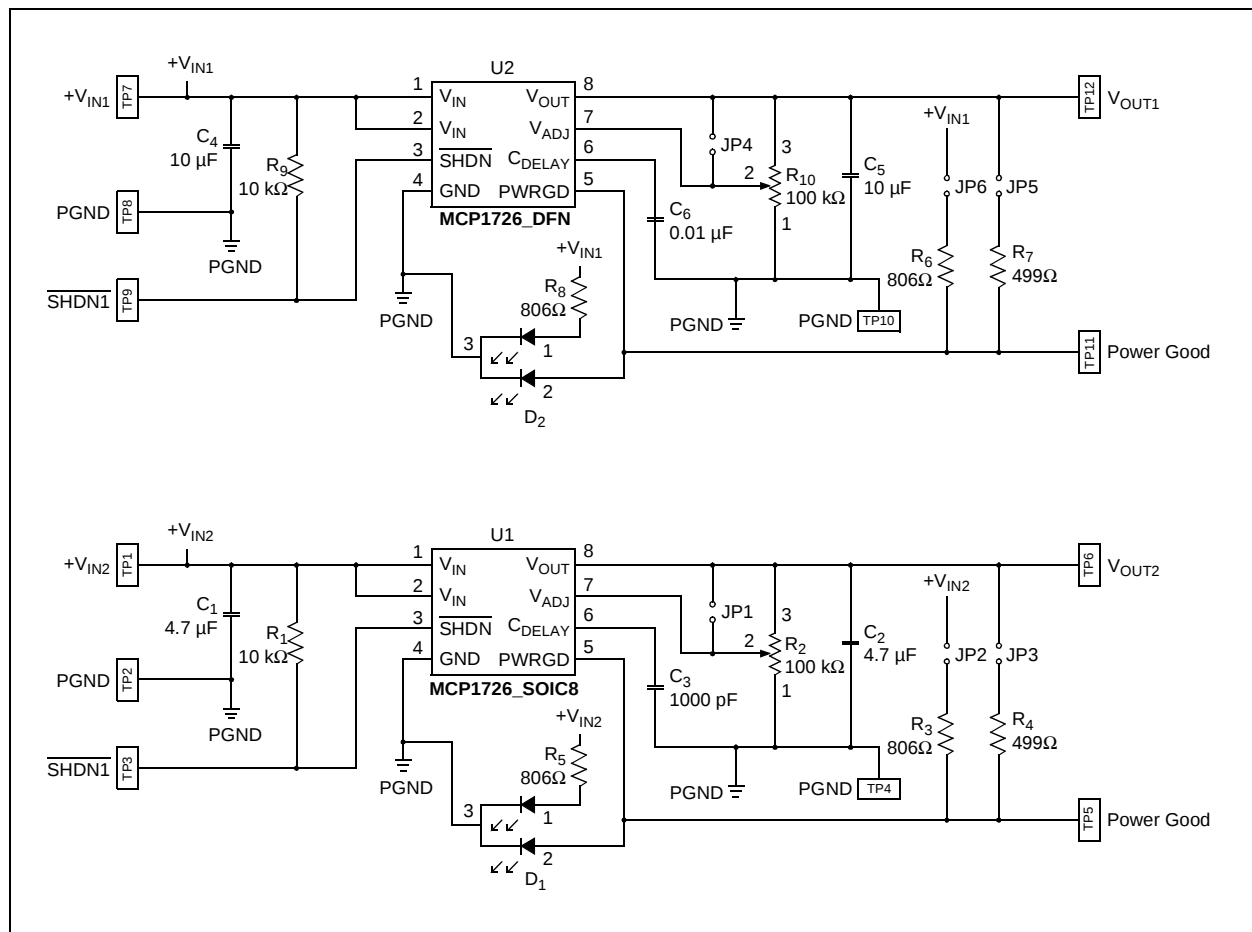


FIGURE 1-1: MCP1726 Evaluation Board Schematic.

MCP1726 Evaluation Board User's Guide

1.2 WHAT IS THE MCP1726 1A LDO EVALUATION BOARD?

The MCP1726 1A LDO Evaluation Board allows the user to evaluate both the fixed and adjustable versions of the part in the 8-pin SOIC and 8-lead 3X3 DFN packages. An on-board potentiometer allows the user to easily set the output voltage of the adjustable voltage version of the device. Status LEDs indicate when input voltage is applied and when the Power Good (PWRGD) output is in a high condition (output voltage is in regulation).

Connection terminals are provided for the input voltage, output voltage, ground, power good and shutdown.

1.3 WHAT THE MCP1726 1A LDO EVALUATION BOARD KIT INCLUDES

This MCP1726 1A LDO Evaluation Board Kit includes:

- The MCP1726 1A LDO Evaluation Board
- MCP1726 1A LDO Evaluation Board User's Guide (DS51550)
- MCP1726 Data Sheet (DS21936)

Chapter 2. Installation and Operation

2.1 INTRODUCTION

The MCP1726 1A LDO Evaluation Board demonstrates Microchip's 1A Low-Quiescent Current, Low-Dropout (LDO) regulator. The evaluation board contains two independent circuits that allow the user to evaluate the MCP1726 in the 8-pin SOIC and the 8-pin 3X3 DFN packages. The evaluation board uses a potentiometer to adjust the output voltage of the MCP1726 device across its entire output voltage range. The evaluation board also allows for fixed-output voltage versions of the device to be used by simply connecting the pins of a jumper connector.

2.2 FEATURES

The MCP1726 1A LDO Evaluation Board has the following features:

- Input Voltage Range: 2.3V to 6.0V
- Adjustable Output Voltage via a Potentiometer
- Output Voltage Shutdown via the SHDN Input
- Overcurrent Protection (device feature)
- Overtemperature Protection (device feature)
- Input Undervoltage Lockout (UVLO) Protection (device feature)
- Input Power and Power Good Indication (LED)
- Power Good Delay Adjust Capability

2.3 GETTING STARTED

The MCP1726 1A LDO Evaluation Board is fully assembled and tested over its input voltage, output voltage and output current operating range. This board requires the use of an external input voltage source (+2.3V to +6.0V) and an external load (electronic or resistive). The Printed Circuit Board (PCB) design provides cooling for the MCP1726 devices. When the devices are operating with high power dissipation (over 1.0W at room ambient), additional cooling may be required to keep the devices from going into overtemperature shutdown.

The MCP1726 1A LDO Evaluation Board contains two circuits to evaluate; one for the SOIC package and one for the 3X3 DFN package. These circuits are powered independently of each other through separate connectors/test points. The circuitry for evaluating the 3X3 DFN package has inputs labeled VIN1 and SHDN1, and outputs labeled PWRGD1 and VOUT1. The circuitry for evaluating the SOIC package has inputs labeled VIN2 and SHDN2, and outputs labeled PWRGD2 and VOUT2. The ground connections for the board are all common to each other and are labeled as GND. There are a total of four connection points for ground.

All of the connections to the MCP1726 1A LDO Evaluation Board are made through surface-mount test points. These test points can be removed with a soldering iron if you wish to solder wires directly to the pads that are provided on the board.

MCP1726 Evaluation Board User's Guide

2.4 TESTING CIRCUIT 1 OF THE MCP1726 1A LDO EVALUATION BOARD

2.4.1 Power Input and Output Connections

Powering the MCP1726 1A LDO Evaluation Board

Apply the input voltage to test points TP7 (VIN1) and TP8 (GND). Connect the positive side of the input source (+) to test point TP7 (VIN1). Connect the negative, or return, side (–) of the input source to the test point TP8 (GND). These two test points are located on the upper left side of the board. The power supply input voltage must be in the specified operating range for the board to operate correctly. The UVLO feature of the MCP1726 prevents the device from operating when the input voltage is too low (see data sheet for UVLO thresholds).

When input voltage is applied and is above the input UVLO threshold, the LDO output will turn on automatically. The $\overline{\text{SHDN1}}$ input has been pulled up to VIN1 which turns the device on. The LDO output can be turned off by pulling the $\overline{\text{SHDN1}}$ input (TP9) low (short $\overline{\text{SHDN1}}$ to GND).

When input voltage is applied, the red portion of the D2 LED will illuminate. As long as input voltage is present, the red portion of this LED will be on.

Applying the load to the MCP1726 1A LDO Evaluation Board

To apply a load to VOUT1 of the MCP1726 1A LDO Evaluation Board, the positive-side of the load (+) should be connected to test point TP12 (VOUT1). The negative side of the load (–) should be connected to test point TP10 (GND).

The maximum output current of the MCP1726 is 1.0A. If the output load exceeds this level, the MCP1726 will go into current limit at 1.7A. If, during the overload condition, the device junction temperature exceeds the overtemperature limit of 150°C, the output of the LDO will turn off and wait for the junction temperature to cool down before turning the LDO output back on. Circuit 1 of the MCP1726 1A LDO Evaluation Board evaluates the 3X3 DFN package. When operating at room ambient, this circuit will go into overtemperature shutdown when the power dissipation in the device reaches about 2.1W.

2.4.2 Adjusting the Output Voltage of the LDO

The MCP1726 1A LDO Evaluation Board comes with the output voltage preset to 2.5V. To adjust the output voltage (VOUT1) of circuit 1, the potentiometer, R10, is used. R10 is a top-side adjust potentiometer. If the desired output voltage is higher than 2.5V, raise the input voltage to a level that is higher than your desired output voltage. Use a small flathead screwdriver to adjust the R10 potentiometer and monitor the VOUT1 (TP12) voltage. If your desired output voltage is less than 2.5V, the input voltage of the LDO must be set to a minimum of 2.3V, as this is the minimum input voltage of the LDO. The output voltage of the LDO can then be adjusted using the R10 potentiometer.

The potentiometer will allow you to adjust the output voltage over the full range of 0.8V to 5.0V. If you would like to use fixed resistor values to set the output voltage of the LDO, the potentiometer can be removed and the pads for the potentiometer can be used to solder your fixed value resistors into the circuit.

2.4.3 Power Present and Power Good (PWRGD1) Indication

The MCP1726 1A LDO Evaluation Board has one dual status LED. The dual LED (D2) contains a red LED and a green LED. The red portion of the LED illuminates to indicate that input voltage is present.

The green portion of the LED (D2) is used for power good (PWRGD) indication. During normal operation, if the LDO output is in regulation, the green portion of D2 is illuminated to provide indication that power is good. If the output voltage of the LDO falls below the power good threshold limit (below 92% (typical) of the nominal output voltage regulation value) for any reason (input voltage too low, overtemperature, output short circuit), the green portion of the LED will turn off. The green portion of the LED is driven off of the PWRGD1 output.

The power good output (PWRGD1) can be monitored by connecting to TP11. The power good output of the MCP1726 device is an open-drain output. On the MCP1726 1A LDO Evaluation Board, the PWRGD1 output can be pulled up to either the LDO input or output voltage. This can be done through jumpers JP6 and JP5, respectively. To pull the PWRGD1 output up to the input voltage of the LDO, populate jumper JP6 (place one of the black shorting tabs on the jumper) and make sure that jumper JP5 is not populated. To pull the PWRGD1 output up to the output voltage, populate jumper JP5 and make sure that jumper JP6 is not populated. Upon shipment, the board is configured to have PWRGD1 pulled up to the input voltage. Because the PWRGD1 output is driving the green portion of the D2 LED, the voltage at the PWRGD1 test point will be clamped to the forward voltage of the LED. If you want to have the PWRGD1 voltage be pulled all the way up to the input or output voltage, remove the D2 LED.

2.4.4 Power Good Time Delay

The MCP1726 device has a power good time delay feature that allows the user to set the time delay from when the output voltage is in regulation to when the power good output (PWRGD) goes high. This feature is implemented by the C_{DELAY} pin on the device (see datasheet for more details). Circuit 1 of the MCP1726 1A LDO Evaluation Board is populated with a 0.01 μF capacitor (C6) for the C_{DELAY} pin capacitor. This gives a typical delay time of 30 ms.

2.4.5 Input and Output Capacitors

The input and output capacitors (C4 and C5, respectively) for Circuit 1 of the MCP1726 1A LDO Evaluation Board are populated with 10 μF , 6.3V ceramic capacitors. The pads for these devices have been constructed in such a manner that 0805, 1206 and 1210 size surface-mount capacitors can be used. This allows the user to populate the board with capacitors of various values and voltage ratings that mimic their application.

2.4.6 Testing Fixed-Output Voltage Devices

As stated earlier, the MCP1726 1A LDO Evaluation Board is designed to handle either the adjustable or fixed-output voltage version of the device (board comes populated with the adjustable output voltage version). When testing a fixed-output voltage version of the device, jumper JP4 should be populated (use the additional black jumper top that is provided). This will connect pin 7 of U2 to the VOUT1 output (for the fixed-output voltage devices, pins 7 and 8 of the MCP1726 are both V_{OUT}) which is necessary for proper operation.

MCP1726 Evaluation Board User's Guide

2.5 TESTING CIRCUIT 2 OF THE MCP1726 1A LDO EVALUATION BOARD

2.5.1 Power Input and Output Connections

Powering the MCP1726 1A LDO Evaluation Board

Apply the input voltage to test points TP1 (VIN2) and TP2 (GND). Connect the positive-side of the input source (+) to test point TP1 (VIN2). Connect the negative, or return, side (–) of the input source to the test point TP2 (GND). These two test points are located on the lower-left side of the board. The power supply input voltage must be in the specified operating range for the board to operate correctly. The UVLO feature of the MCP1726 prevents the device from operating when the input voltage is too low (see data sheet for UVLO thresholds).

When input voltage is applied and is above the input UVLO threshold, the LDO output will turn on automatically. The $\overline{\text{SHDN2}}$ input has been pulled up to VIN2 which turns the device on. The LDO output can be turned off by pulling the $\overline{\text{SHDN2}}$ input (TP3) low (short $\overline{\text{SHDN2}}$ to GND).

When input voltage is applied, the red portion of the D1 LED will illuminate. As long as input voltage is present, the red portion of this LED will be on.

Applying the load to the MCP1726 1A LDO Evaluation Board

To apply a load to VOUT2 of the MCP1726 1A LDO Evaluation Board, the positive-side of the load (+) should be connected to test point TP6 (VOUT2). The negative-side of the load (–) should be connected to test point TP4 (GND).

The maximum output current of the MCP1726 is 1.0A. If the output load exceeds this level, the MCP1726 will go into current limit at 1.7A. If, during the overload condition, the device junction temperature exceeds the overtemperature limit of 150°C, the output of the LDO will turn off and wait for the junction temperature to cool down before turning the LDO output back on. Circuit 2 of the MCP1726 1A LDO Evaluation Board evaluates the SOIC package. When operating at room ambient, this circuit will go into overtemperature shutdown when the power dissipation in the device reaches about 1.3W.

2.5.2 Adjusting the Output Voltage of the LDO

The MCP1726 1A LDO Evaluation Board comes with the output voltage preset to 2.5V. To adjust the output voltage (VOUT2) of circuit 2, the potentiometer (R2) is used. R2 is a top-side adjust potentiometer. If the desired output voltage is higher than 2.5V, raise the input voltage to a level that is higher than your desired output voltage. Use a small flat head screw driver to adjust the R2 potentiometer and monitor the VOUT2 (TP6) voltage. If your desired output voltage is less than 2.5V, the input voltage of the LDO must be set to a minimum of 2.3V, as this is the minimum input voltage of the LDO. The output voltage of the LDO can then be adjusted using the R2 potentiometer.

The potentiometer will allow you to adjust the output voltage over the full range of 0.8V to 5.0V. If you would like to use fixed resistor values to set the output voltage of the LDO, the potentiometer can be removed and the pads for the potentiometer can be used to solder your fixed-value resistors into the circuit.

2.5.3 Power Present and Power Good (PWRGD2) Indication

The MCP1726 1A LDO Evaluation Board has one dual-status LED. The dual LED (D1) contains a red LED and a green LED. The red portion of the LED illuminates to indicate that input voltage is present.

The green portion of the LED (D1) is used for power good (PWRGD) indication. During normal operation, if the LDO output is in regulation, the green portion of D1 is illuminated to provide indication that power is good. If the output voltage of the LDO falls below the power good threshold limit (below 92% (typical) of the nominal output voltage regulation value) for any reason (input voltage too low, overtemperature, output short circuit), the green portion of the LED will turn off. The green portion of the LED is driven off of the PWRGD2 output.

The power good output (PWRGD2) can be monitored by connecting to TP5. The power good output of the MCP1726 device is an open-drain output. On the MCP1726 1A LDO Evaluation Board, the PWRGD2 output can be pulled up to either the LDO input or output voltage. This can be accomplished through jumpers JP2 and JP3, respectively. To pull the PWRGD2 output up to the input voltage of the LDO, populate jumper JP2 (place one of the black shorting tabs on the jumper) and make sure that jumper JP3 is not populated. To pull the PWRGD2 output up to the output voltage, populate jumper JP3 and make sure that jumper JP2 is not populated. Upon shipment, the board is configured to have PWRGD2 pulled up to the input voltage. Because the PWRGD2 output is driving the green portion of the D1 LED, the voltage at the PWRGD2 test point will be clamped to the forward voltage of the LED. If you want to have the PWRGD2 voltage be pulled all the way up to the input or output voltage, remove the D1 LED.

2.5.4 Power Good Time Delay

The MCP1726 device has a power good time delay feature that allows the user to set the time delay from when the output voltage is in regulation to when the power good output (PWRGD) goes high. This feature is implemented by the C_{DELAY} pin on the device (see data sheet for more details). Circuit 2 of the MCP1726 1A LDO Evaluation Board is populated with a 1000 pF capacitor (C3) for the C_{DELAY} pin capacitor. This gives a typical delay time of 3 ms.

2.5.5 Input and Output Capacitors

The input and output capacitors (C1 and C2, respectively) for Circuit 2 of the MCP1726 1A LDO Evaluation Board are populated with 4.7 μ F, 6.3V ceramic capacitors. The pads for these devices have been constructed in such a manner that 0805, 1206 and 1210 size surface-mount capacitors can be used. This allows the user to populate the board with capacitors of various values and voltage ratings that mimic their application.

2.5.6 Testing Fixed-Output Voltage Devices

As stated earlier, the MCP1726 1A LDO Evaluation Board is designed to handle either the adjustable or fixed-output voltage version of the device (board comes populated with the adjustable output voltage version). When testing a fixed-output voltage version of the device, jumper JP1 should be populated (use the additional black jumper top that is provided). This will connect pin 7 of U1 to the VOUT2 output (for the fixed-output voltage devices, pins 7 and 8 of the MCP1726 are both V_{OUT}), which is necessary for proper operation.

MCP1726 Evaluation Board User's Guide

NOTES:

Appendix A. Schematics and Layouts

A.1 INTRODUCTION

This appendix contains the following schematics and layouts for the MCP1726 1A LDO Evaluation Board.

- Board Schematic
- Board Outline
- Board – Top Layer
- Board – Bottom Layer

MCP1726 Evaluation Board User's Guide

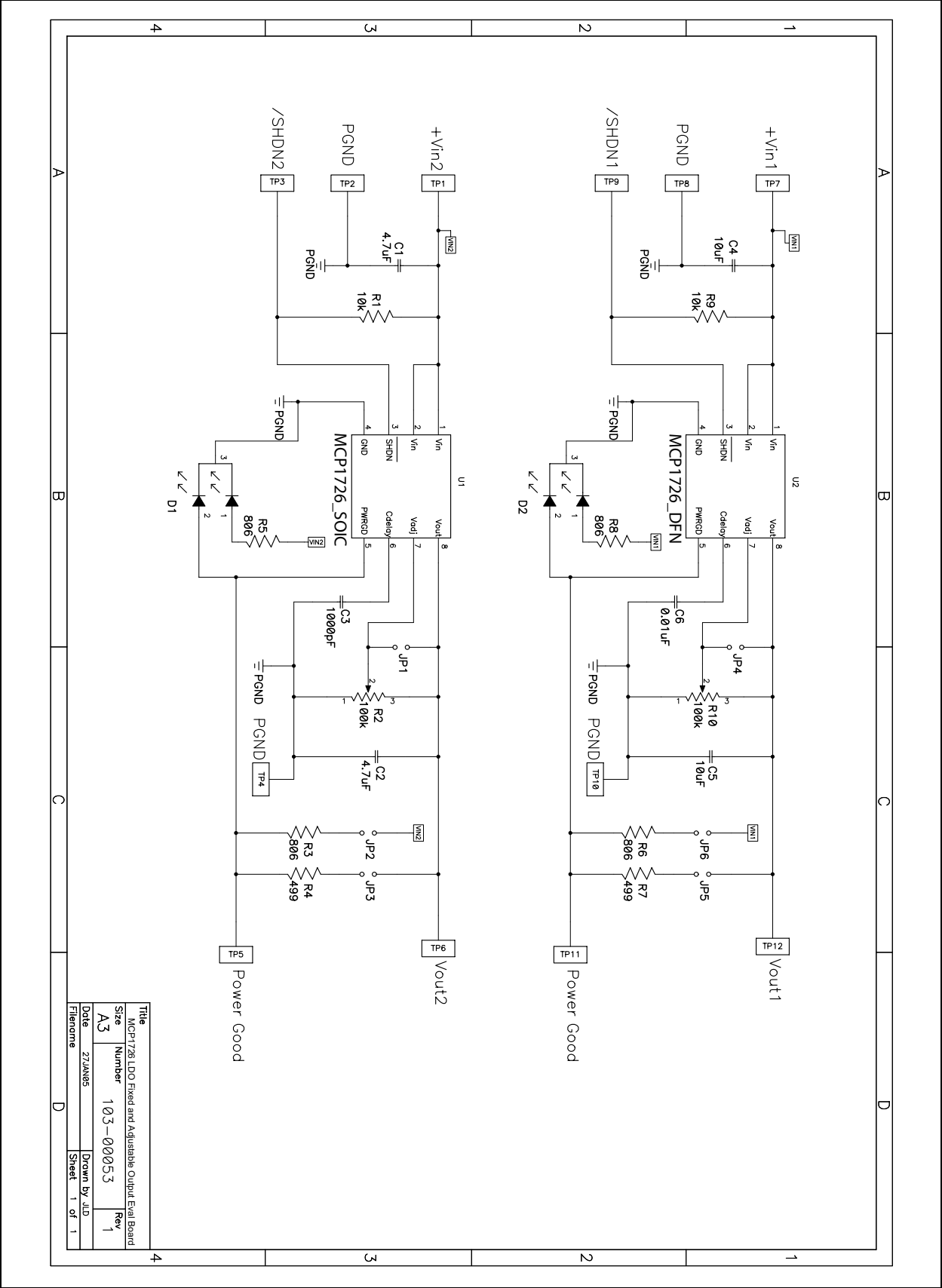


FIGURE A-1: Board Schematic.

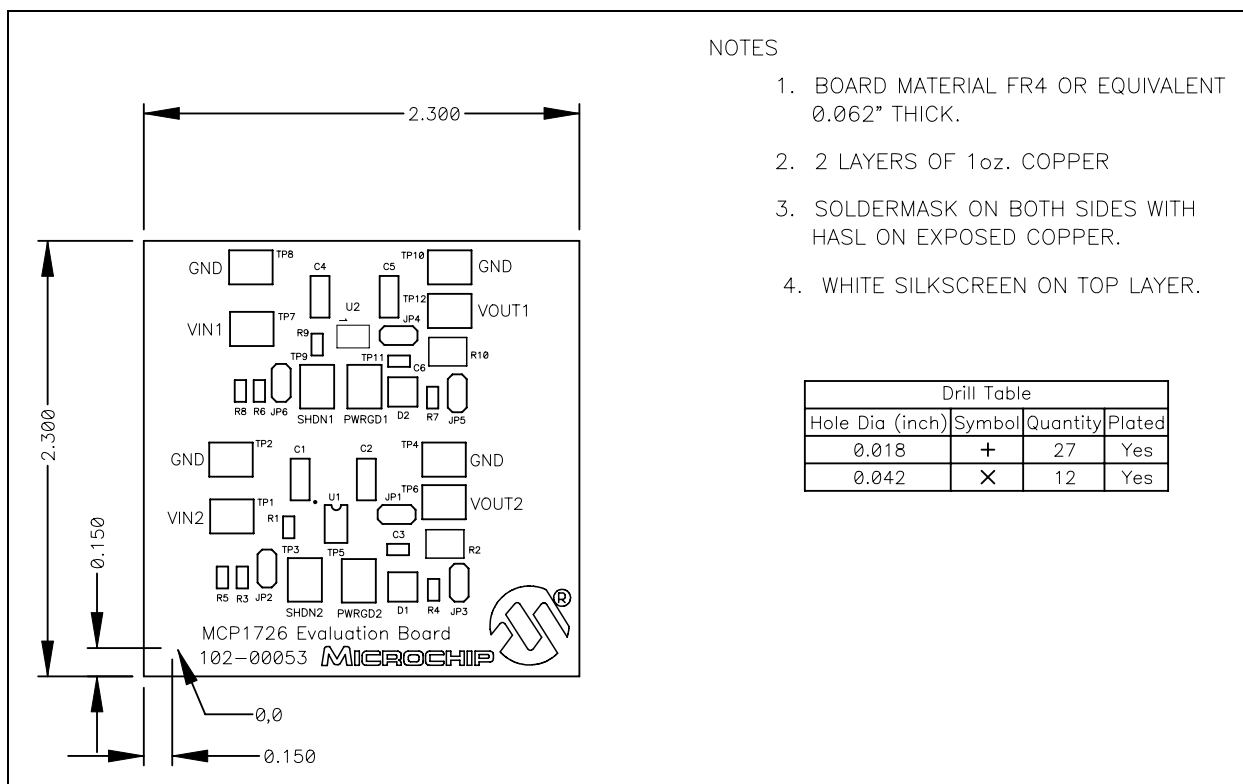


FIGURE A-2: Board – Outline.

MCP1726 Evaluation Board User's Guide

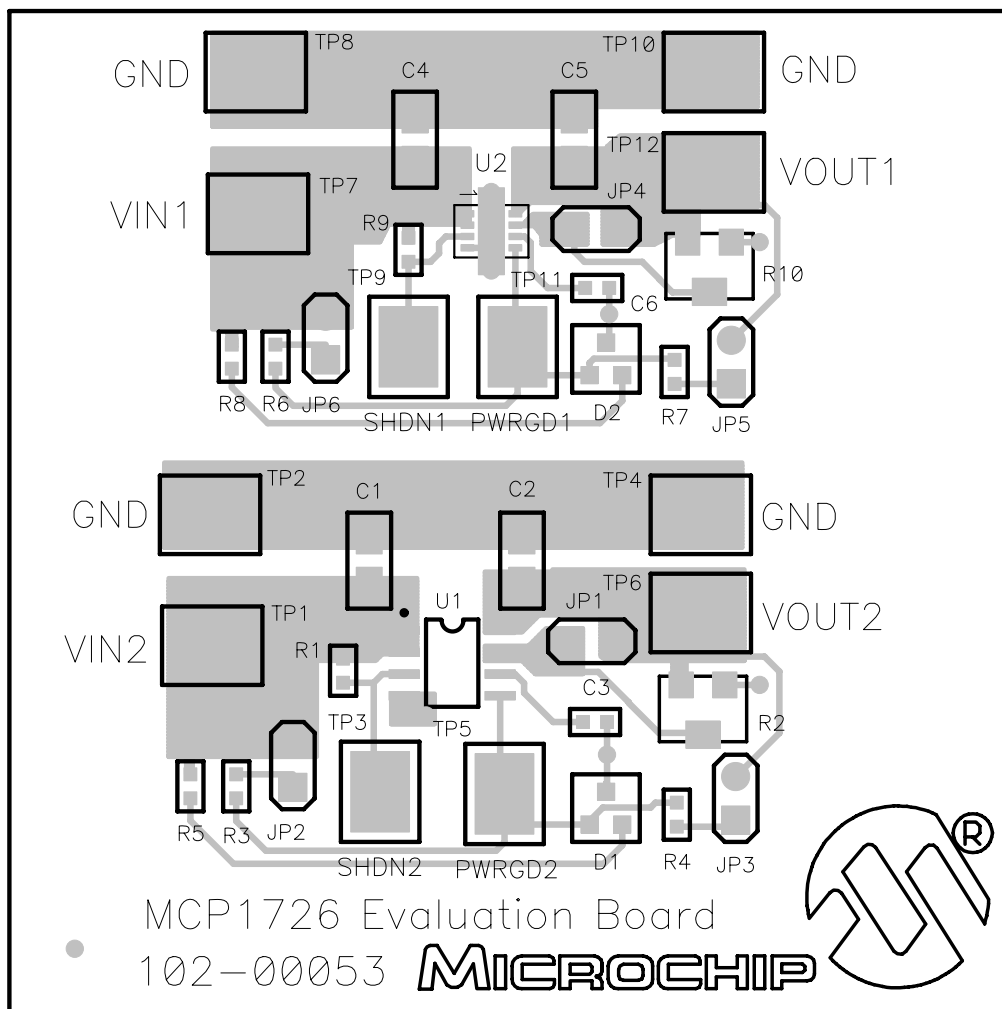


FIGURE A-3: Board – Top Layer.

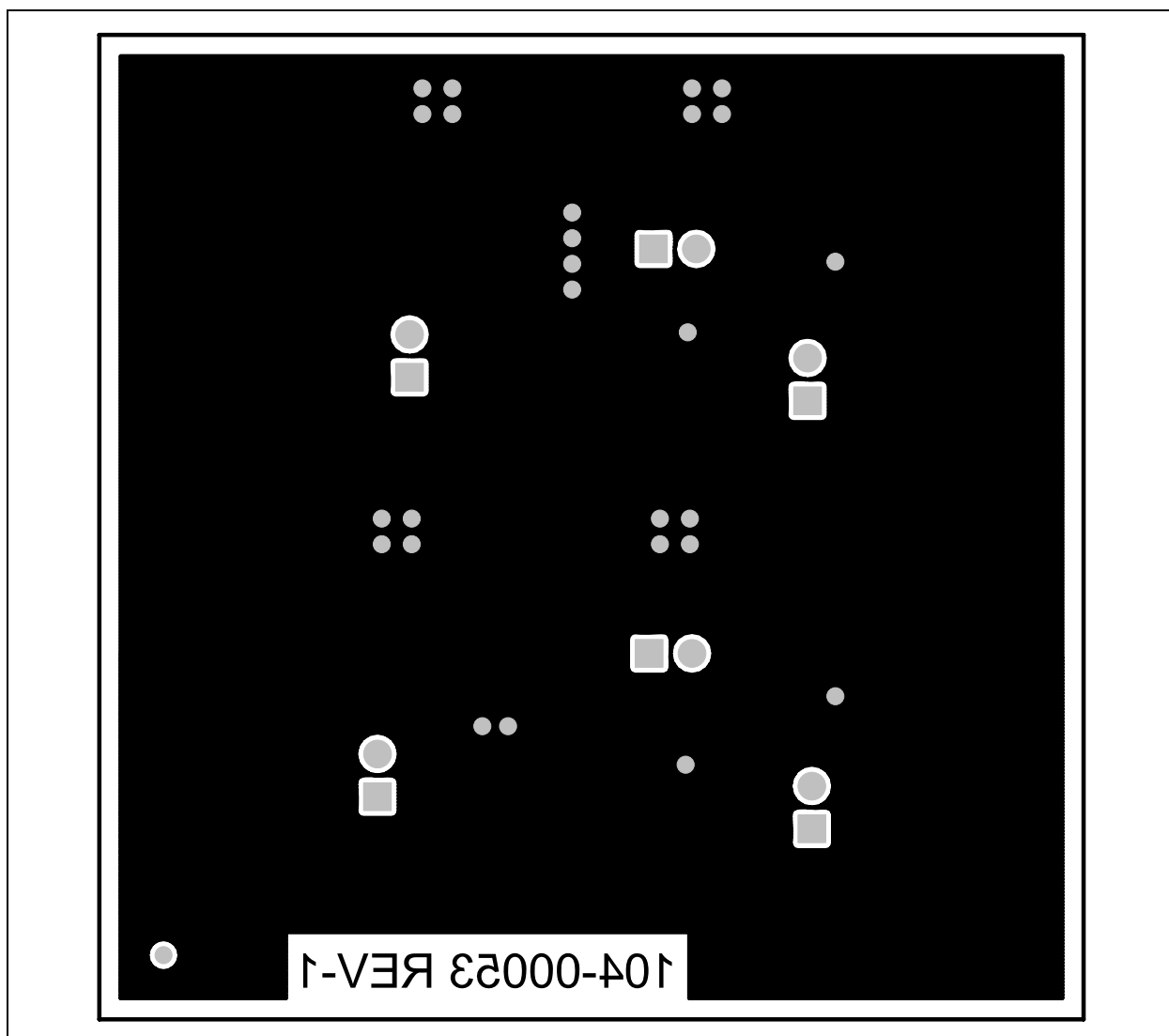


FIGURE A-4: Board – Bottom Layer.

MCP1726 Evaluation Board User's Guide

NOTES:

Appendix B. Bill-Of-Materials (BOM)

TABLE B-1: BILL-OF-MATERIALS (BOM)

Qty	Reference	Description	Manufacturer	Part Number
4		Jumper Shorting Posts	Sullens	STC02SYAN
2	C1, C2	CAP 4.7UF 6.3V CERAMIC X5R 0805	Panasonic® Corp.	ECJ-2FB0J475M
1	C3	CAP 1000PF 50V CERAMIC 0603 SMD	Panasonic Corp.	ECU-V1H102KBV
2	C4, C5	CAP 10UF 6.3V CERAMIC X5R 0805	Panasonic Corp.	ECJ-2FB0J106M
1	C6	CAP 10000PF 50V CERAMIC 0603 SMD	Kemet®	C0603C103K5RACTU
2	D1, D2	LED Dual Green/Red Clear SOT-23	Lumex® Opto/Components	SSL-LX151GC-RP-TR
6	JP1, JP2, JP3, JP4, JP5, JP6	Connector Header 2POS .100 VERT TIN	Molex®/Waldom®	22-03-2021
2	R1, R9	RES 10.0K Ohm 1/16W 1% 0603 SMD	Panasonic	ERJ-3EKF1002V
2	R2, R10	TRIMPOT 100K Ohm 4mm Top Adj SMD	Bourns®	3214W-1-104E
4	R3, R5, R6, R8	RES 806 Ohm 1/16W 1% 0603 SMD	Panasonic	ERJ-3EKF8060V
2	R4, R7	RES 499 Ohm 1/16W 1% 0603 SMD	Panasonic	ERJ-3EKF4990V
12	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12	SMT Test Point/Connector	Keystone Electronics®	5016
1	U1	1A Low Quiescent Current LDO, Adjustable Output, 8-Pin SOIC Package	Microchip Technology Inc.	MCP1726-ADJE/SN
1	U2	1A Low Quiescent Current LDO, Adjustable Output, 3X3 DFN Package	Microchip Technology Inc.	MCP1726-ADJE/MF



WORLDWIDE SALES AND SERVICE

AMERICAS

Corporate Office
2355 West Chandler Blvd.
Chandler, AZ 85224-6199
Tel: 480-792-7200
Fax: 480-792-7277
Technical Support:
<http://support.microchip.com>
Web Address:
www.microchip.com

Atlanta

Alpharetta, GA
Tel: 770-640-0034
Fax: 770-640-0307

Boston

Westborough, MA
Tel: 774-760-0087
Fax: 774-760-0088

Chicago

Itasca, IL
Tel: 630-285-0071
Fax: 630-285-0075

Dallas

Addison, TX
Tel: 972-818-7423
Fax: 972-818-2924

Detroit

Farmington Hills, MI
Tel: 248-538-2250
Fax: 248-538-2260

Kokomo

Kokomo, IN
Tel: 765-864-8360
Fax: 765-864-8387

Los Angeles

Mission Viejo, CA
Tel: 949-462-9523
Fax: 949-462-9608

San Jose

Mountain View, CA
Tel: 650-215-1444
Fax: 650-961-0286

Toronto

Mississauga, Ontario,
Canada
Tel: 905-673-0699
Fax: 905-673-6509

ASIA/PACIFIC

Australia - Sydney
Tel: 61-2-9868-6733
Fax: 61-2-9868-6755

China - Beijing
Tel: 86-10-8528-2100
Fax: 86-10-8528-2104

China - Chengdu
Tel: 86-28-8676-6200
Fax: 86-28-8676-6599

China - Fuzhou
Tel: 86-591-8750-3506
Fax: 86-591-8750-3521

China - Hong Kong SAR

Tel: 852-2401-1200
Fax: 852-2401-3431

China - Shanghai
Tel: 86-21-5407-5533
Fax: 86-21-5407-5066

China - Shenyang
Tel: 86-24-2334-2829
Fax: 86-24-2334-2393

China - Shenzhen
Tel: 86-755-8203-2660
Fax: 86-755-8203-1760

China - Shunde
Tel: 86-757-2839-5507
Fax: 86-757-2839-5571

China - Qingdao
Tel: 86-532-502-7355
Fax: 86-532-502-7205

ASIA/PACIFIC

India - Bangalore
Tel: 91-80-2229-0061
Fax: 91-80-2229-0062

India - New Delhi
Tel: 91-11-5160-8631
Fax: 91-11-5160-8632

Japan - Kanagawa
Tel: 81-45-471- 6166
Fax: 81-45-471-6122

Korea - Seoul
Tel: 82-2-554-7200
Fax: 82-2-558-5932 or
82-2-558-5934

Singapore
Tel: 65-6334-8870
Fax: 65-6334-8850

Taiwan - Kaohsiung
Tel: 886-7-536-4818
Fax: 886-7-536-4803

Taiwan - Taipei
Tel: 886-2-2500-6610
Fax: 886-2-2508-0102

Taiwan - Hsinchu
Tel: 886-3-572-9526
Fax: 886-3-572-6459

EUROPE

Austria - Weis
Tel: 43-7242-2244-399
Fax: 43-7242-2244-393

Denmark - Ballerup
Tel: 45-4450-2828
Fax: 45-4485-2829

France - Massy
Tel: 33-1-69-53-63-20
Fax: 33-1-69-30-90-79

Germany - Ismaning
Tel: 49-89-627-144-0
Fax: 49-89-627-144-44

Italy - Milan
Tel: 39-0331-742611
Fax: 39-0331-466781

Netherlands - Drunen
Tel: 31-416-690399
Fax: 31-416-690340

England - Berkshire
Tel: 44-118-921-5869
Fax: 44-118-921-5820

03/01/05



**Стандарт
Электрон
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

Наши контакты:

Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург,
Промышленная ул, дом № 19, литера Н,
помещение 100-Н Офис 331