19-5498; Rev 0; 9/10

MAX6581评估板

评估板：MAX6581

概述

MAX6581评估板(EV kit)是完全安装并经过测试的PCB，用于评估MAX6581 8通道温度传感器。器件监测自身管芯的温度和多达7个外部连接成二极管的晶体管温度。器件将温度转换为8位或11位、2线串行数据，可通过2线串行总线访问。

评估板还包括Windows® 2000、Windows XP®和Windows Vista®兼容软件，为评估器件的功能特性提供简捷的用户界面。程序采用菜单驱动，提供图形用户界面(GUI)，具有完整的控制按钮和状态显示。

特性

- ♦ 7个远端温度传感器
- ♦ 本地温度传感器
- ♦ 可编程低温和高温报警
- ♦ 2路开漏输出报警指示($\overline{ALERT}$和$\overline{OVERT}$)
- ♦ 板载微控制器，产生SMBus™/I²C命令
- ♦ 使用简单的菜单驱动软件
- ♦ 完全安装并经过测试

定购信息

PART	TYPE
MAX6581EVKIT+	EV Kit

+表示无铅(Pb)并符合RoHS标准。

元件列表

DESIGNATION	QTY	DESCRIPTION
C1, C4–C8, C12, C17, C19	9	0.1µF ±10%, 16V X7R ceramic capacitors (0603) TDK C1608X7R1C104K Murata GRM188R71C104K
C2, C13, C15	3	10µF ±20%, 16V X5R ceramic capacitors (1206) Murata GRM31CR61C106M or TDK C3216X5R1C106M
C3	1	4.7µF ±10%, 6.3V X5R ceramic capacitor (0603) TDK C1608X5R0J475K Murata GRM188R60J475K
C9	1	0.033µF ±10%, 16V X5R ceramic capacitor (0603) Murata GRM188R71E333K TDK C1608X7R1E333K
C10, C11	2	22pF ±5%, 50V C0G ceramic capacitors (0603) Murata GRM1885C1H220J TDK C1608C0G1H220J

DESIGNATION	QTY	DESCRIPTION
C14	1	1µF ±10%, 16V X5R ceramic capacitor (0603) TDK C1608X5R1C105K Murata GRM188R61C105K
C16, C18	2	10pF ±5%, 50V C0G ceramic capacitors (0603) Murata GRM1885C1H100J TDK C1608C0G1H100J
C20–C26	7	100pF ±5%, 50V C0G ceramic capacitors (0603) Murata GRM1885C2A101J TDK C1608C0G1H101J
D1, D2	2	Red LEDs (0805)
D3	1	Green LED (0805)
FB1	1	70Ω, 4A ferrite bead (0603) TDK MMZ1608R301A Murata BLM18SG700 TN1
H1	0	Not installed, 2 x 5-pin JTAG header
JU1–JU8	8	2-pin headers
JU9	1	3-pin header

Windows、Windows XP和Windows Vista是Microsoft Corp.的注册商标。

SMBus是Intel Corp.的商标。

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有关价格、供货及订购信息，请联络Maxim亚洲销售中心：10800 852 1249 (北中国区)，10800 152 1249 (南中国区)，或访问Maxim的中文网站：china.maxim-ic.com。

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元件列表(续)

DESIGNATION	QTY	DESCRIPTION
P1	1	USB type-B right-angle PC-mount receptacle
Q1–Q7	7	2N3906-type pnp transistors (SOT23) Central Semi CMPT3906 Diodes Inc. MMBT3906
R1, R2	2	27Ω ±5% resistors (0603)
R3, R17, R18	3	1.5kΩ ±5% resistors (0603)
R4, R7, R19, R20	4	470Ω ±5% resistors (0603)
R5	1	2.2kΩ ±5% resistor (0603)
R6, R21	2	10kΩ ±5% resistors (0603)
R8	1	0Ω resistor (0603)
R9, R10, R11–R16	0	Not installed, resistors (0603) R9, R10, R11 are open; R12–R16 are short PC trace
U1	1	8-channel temp sensor (24 TQFN) Maxim MAX6581TG9A+

DESIGNATION	QTY	DESCRIPTION
U2	1	LDO regulator (5 SC70) Maxim MAX8511EXK33+
U3	1	Microcontroller (68 QFN-EP*) Maxim MAXQ2000-RAX+
U4	1	LDO regulator (5 SC70) Maxim MAX8511EXK25+
U5	1	USB-to-UART converter (32 TQFP)
U6	1	93C46-type 3-wire EEPROM (8 SO)
Y1	1	16MHz crystal (HCM49) Hong Kong X'tals SSM1600000E18FAF
Y2	1	6MHz crystal (HCM49) Hong Kong X'tals SSL600000E18FAF
—	9	Shunts (JU1–JU9)
—	1	PCB: MAX6581 EVALUATION KIT+

*EP = 裸焊盘。

元件供应商

SUPPLIER	PHONE	WEBSITE
Central Semiconductor Corp.	631-435-1110	www.centralsemi.com
Diodes Incorporated	805-446-4800	www.diodes.com
Hong Kong X'tals Ltd.	852-35112388	www.hongkongcrystal.com
Murata Electronics North America, Inc.	770-436-1300	www.murata-northamerica.com
TDK Corp.	847-803-6100	www.component.tdk.com

注：在联系这些元件供应商时，请说明您使用的是MAX6581。

MAX6581评估文件

FILE	DESCRIPTION
INSTALL.EXE	Installs the EV kit files on your computer
MAX6581.EXE	Application program
FTD2XX.INF	USB driver file
UNINST.INI	Uninstalls the EV kit software
USB_Driver_Help.PDF	USB driver installation help file

快速入门

推荐设备

- MAX6581评估板(含USB电缆)
- 用户提供的具有空闲USB口的Windows 2000、Windows XP或Windows Vista PC

注： 以下章节中，与软件相关的条目用粗体字表示。**粗体**字表示直接由评估软件提供的条目，**粗体字加下划线**表示与Windows操作系统相关的条目。

步骤

评估板已完全安装并经过测试。按照以下步骤验证评估板的工作情况。**注意：在完成全部连接之前，请勿打开电源。**

1) 从**china.maxim-ic.com/evkitsoftware**下载最新版本的评估软件6581Rxx.ZIP。将评估软件保存至一个临时文件夹，然后解压缩ZIP文件。
2) 运行临时文件夹中的INSTALL.EXE程序，在计算机上安装评估软件。该程序文件将被复制并在Windows的Start | Programs菜单中创建图标。
3) 确认全部跳线(JU1至JU9)位于其默认位置，如表1所示。
4) 用USB电缆连接PC和评估板。第一次安装USB驱动时，会弹出New Hardware Found窗口。如果30s后仍未出现与以上所述类似的窗口，请从评估板拔下USB电缆，然后重新连接。在Windows中安装USB设备驱动需要管理员权限。
5) 按照Add New Hardware Wizard中的说明安装USB设备驱动。选择Search for the best driver for your device选项。利用Browse按钮，将设备驱动的位置指向C:\Program Files\MAX6581 (默认安装目录)。安装设备驱动时，Windows可能会显示一条警告消息，提示Maxim使用的设备驱动不包含数字签名。这不是错误，可继续安全安装。更多信息请参考随软件提供的USB_Driver_Help.PDF文件。
6) 点击Start | Programs中的图标，启动评估软件。评估软件主窗口如图1所示，程序自动检测器件地址并启动主程序。

软件详细说明

用户界面

MAX6581评估板的用户界面非常容易使用。每个按钮都与命令和配置字节中的位相对应。通过点击这些按钮，产生正确的I^2C兼容写操作，更新MAX6581的内部寄存器。

自动读取

程序轮询器件，查找最新的温度和状态数据，最大速率为每秒两次(2Hz)。如需禁用数据轮询，取消选中程序顶部的Auto Read选择框。

数据记录

选中程序顶部的Data Logging选择框，激活数据记录功能。数据记录功能将温度和状态数据保存至文本文件，包括紧邻每个数据点的时间/日期标记。如果选中Auto Read选择框，则以2Hz的速率采样数据；然而，只有在温度或状态发生变化后才会将数据记录至文件。这样就减缓了数据记录文件的增大。未选中Auto Read选择框时，每次从Options菜单栏上选择Read All时记录数据。取消选中Data Logging选择框，停止数据记录。

表1. 跳线说明(JU1至JU9)

JUMPER	SHUNT POSITION	DESCRIPTION
JU1–JU7	Installed*	The EV kit uses the 2N3906 transistors as the external diode-connected transistors.
	Not installed	The EV kit uses user-supplied external diode-connected transistors.
JU8	Installed	$\overline{STBY}$ logic-low places the device in standby mode.
	Not installed*	$\overline{STBY}$ logic-high places the device in normal mode.
JU9	1-2*	Connects the device to the on-board 3.3V supply.
	2-3	Connects the device to the user-supplied (3V to 3.6V) supply.

*默认位置。

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温度

远端二极管测量通道可提供11位数据(1 LSB = +0.125°C)。8个最高有效位(MSB)可从本地温度和远端温度寄存器读取。用于远端的其余3位可从扩展温度寄存器读取。通过选中Temperature标签页中的Enable Extended Resolution (0x57)选择框，使能扩展分辨率(图1)。

点击Read按钮读取温度。温度读数(单位为摄氏度)显示在GUI右侧。

$\overline{ALERT}$和$\overline{OVERT}$温度限值

所有温度通道均具有可编程报警($\overline{ALERT}$)和过热($\overline{OVERT}$)门限。报警和过热限值可在Temperature标签页中的ALERT Temperature Limit (0x17)和OVERT Temperature Limit (0x20)组合框中设置(图1)。

点击Read按钮读取限值。限值(单位为摄氏度)显示在编辑区中。通过在相应编辑区中输入数值(单位为摄氏度)，然后点击Write按钮可修改限值。

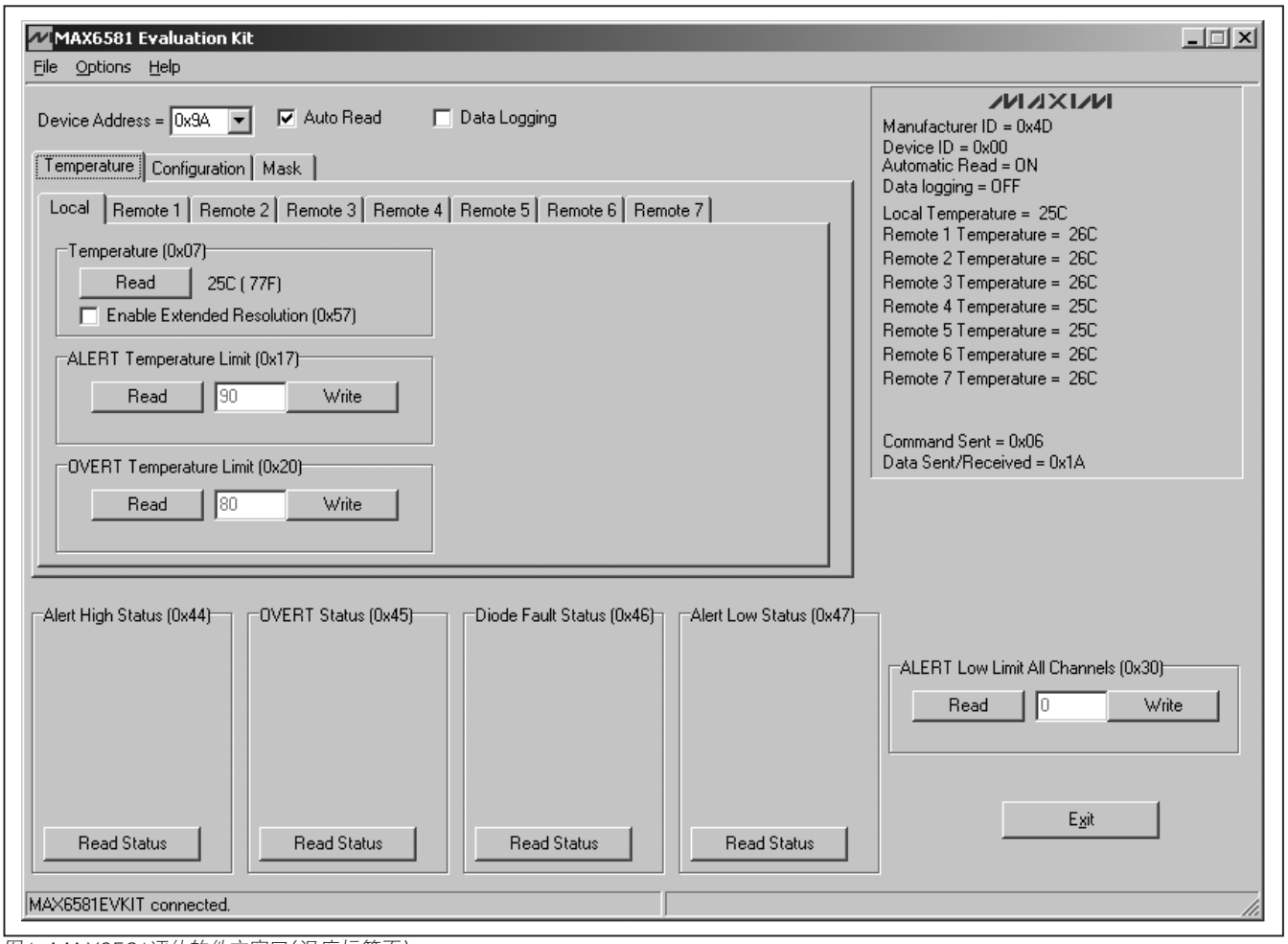

图1. MAX6581评估软件主窗口(温度标签页)

配置、ALERT屏蔽和OVERT屏蔽寄存器

配置寄存器控制待机模式位、上电复位位、SMBus超时使能位和扩展范围使能位。ALERT屏蔽寄存器使能或禁用ALERT中断输出。OVERT屏蔽寄存器使能或禁用OVERT中断输出。

图2所示为配置寄存器的选择框。每个选择框对应寄存器中的一位。表2、表3和表4说明了Configuration标签页的组合框中每个选择框的功能。

点击Read按钮读取寄存器。选中或取消选中相应的功能，然后点击Write按钮，即可修改寄存器。

状态寄存器功能

Alert High Status (0x44)、OVERT Status (0x45)、Diode Fault Status (0x46)和Alert Low Status (0x47)组合框监测4个状态寄存器，并显示发生的关键状态和故障状态。状态条件列表请参见表5至表8。

点击每个组合框中的Read Status按钮，读取每个寄存器的状态。

Alert High Status (0x44)组合框指示实测的本地或远端温度是否超过了ALERT上限寄存器中设置的对应门限值。

OVERT Status (0x45)组合框指示实测的温度是否超过了OVERT上限寄存器中设置的对应门限值。

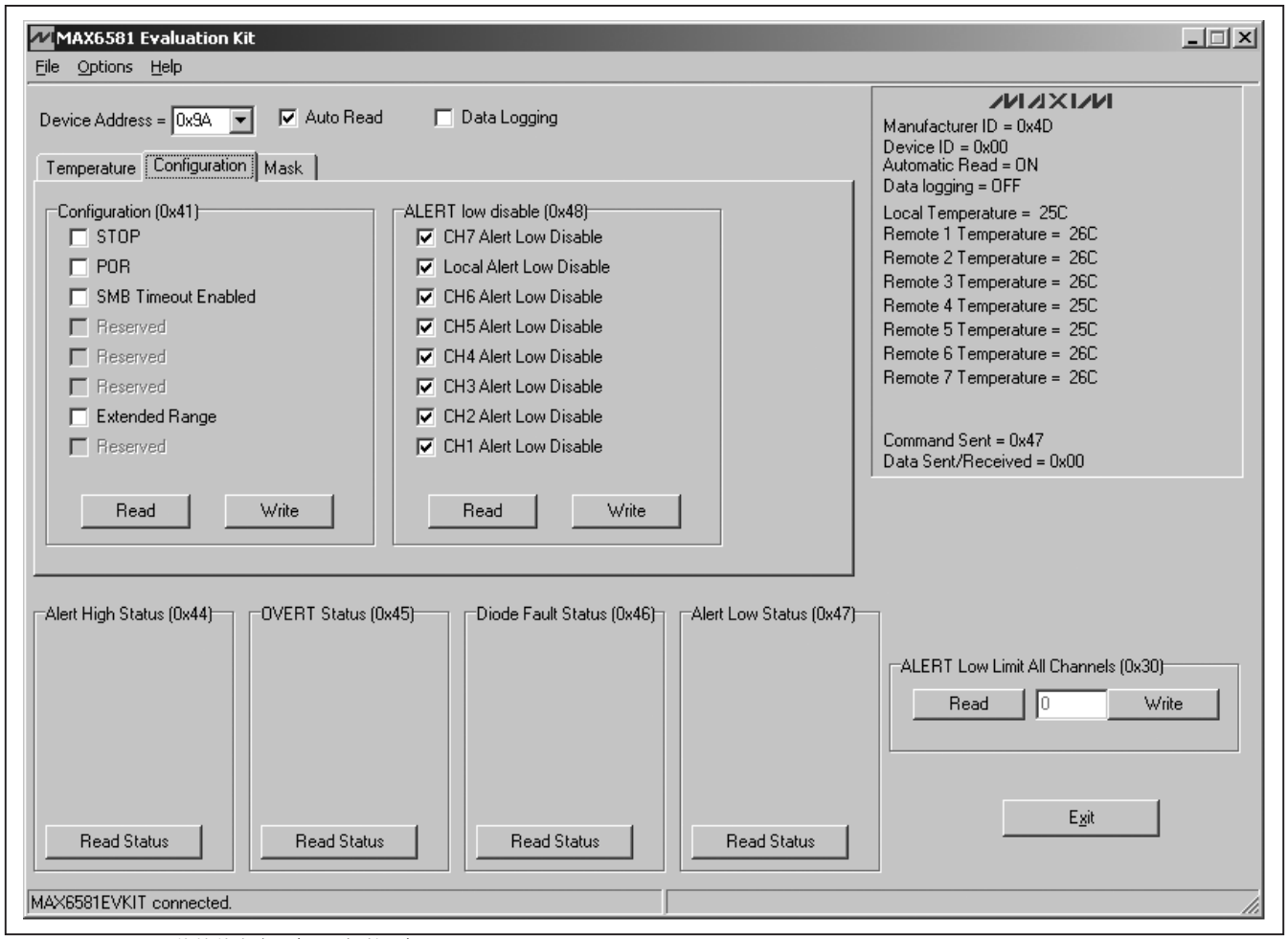

图2. MAX6581评估软件主窗口(配置标签页)

表2. 配置寄存器选择框

BIT	NAME	STATE	DESCRIPTION
7	STOP	Checked	Places the device in software standby mode.
		Unchecked*	Places the device in operational mode.
6	POR	Checked	Resets all registers to their default values, including the global configuration register. After selecting the POR checkbox, the checkbox returns to the unchecked state.
		Unchecked*	Normal operation.
5	$\overline{\text{TIMEOUT}}$	Checked	Disables SMBus timeout.
		Unchecked*	Enables the SMBus timeout.
4	RESERVED	N/A	Not used.
3	RESERVED	N/A	Not used.
2	RESERVED	N/A	Not used.
1	EXTRANGE	Checked	Temperature and limit data range set to -64°C to +191°C.
		Unchecked*	Temperature and limit data range set to 0 to +255°C.
0	RESERVED	N/A	Not used.

*上电复位(POR)状态。

表3. $\overline{\text{ALERT}}$屏蔽寄存器选择框

BIT	NAME	STATE	DESCRIPTION
7	Mask $\overline{\text{ALERT}}$ 7	Checked	Disables the remote-diode 7 $\overline{\text{ALERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 7 $\overline{\text{ALERT}}$ interrupt.
6	Mask Local $\overline{\text{ALERT}}$	Checked	Disables the local $\overline{\text{ALERT}}$ interrupt.
		Unchecked*	Enables the local $\overline{\text{ALERT}}$ interrupt.
5	Mask $\overline{\text{ALERT}}$ 6	Checked	Disables the remote-diode 6 $\overline{\text{ALERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 6 $\overline{\text{ALERT}}$ interrupt.
4	Mask $\overline{\text{ALERT}}$ 5	Checked	Disables the remote-diode 5 $\overline{\text{ALERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 5 $\overline{\text{ALERT}}$ interrupt.
3	Mask $\overline{\text{ALERT}}$ 4	Checked	Disables the remote-diode 4 $\overline{\text{ALERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 4 $\overline{\text{ALERT}}$ interrupt.
2	Mask $\overline{\text{ALERT}}$ 3	Checked	Disables the remote-diode 3 $\overline{\text{ALERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 3 $\overline{\text{ALERT}}$ interrupt.
1	Mask $\overline{\text{ALERT}}$ 2	Checked	Disables the remote-diode 2 $\overline{\text{ALERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 2 $\overline{\text{ALERT}}$ interrupt.
0	Mask $\overline{\text{ALERT}}$ 1	Checked	Disables the remote-diode 1 $\overline{\text{ALERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 1 $\overline{\text{ALERT}}$ interrupt.

*上电复位(POR)状态。

表4. $\overline{\text{OVERT}}$屏蔽寄存器选择框

BIT	NAME	STATE	DESCRIPTION
7	Mask $\overline{\text{OVERT}}$ 7	Checked	Disables the remote-diode 7 $\overline{\text{OVERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 7 $\overline{\text{OVERT}}$ interrupt.
6	Mask Local $\overline{\text{OVERT}}$	Checked	Disables the local $\overline{\text{OVERT}}$ interrupt.
		Unchecked*	Enables the local $\overline{\text{OVERT}}$ interrupt.
5	Mask $\overline{\text{OVERT}}$ 6	Checked	Disables the remote-diode 6 $\overline{\text{OVERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 6 $\overline{\text{OVERT}}$ interrupt.
4	Mask $\overline{\text{OVERT}}$ 5	Checked	Disables the remote-diode 5 $\overline{\text{OVERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 5 $\overline{\text{OVERT}}$ interrupt.
3	Mask $\overline{\text{OVERT}}$ 4	Checked	Disables the remote-diode 4 $\overline{\text{OVERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 4 $\overline{\text{OVERT}}$ interrupt.
2	Mask $\overline{\text{OVERT}}$ 3	Checked	Disables the remote-diode 3 $\overline{\text{OVERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 3 $\overline{\text{OVERT}}$ interrupt.
1	Mask $\overline{\text{OVERT}}$ 2	Checked	Disables the remote-diode 2 $\overline{\text{OVERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 2 $\overline{\text{OVERT}}$ interrupt.
0	Mask $\overline{\text{OVERT}}$ 1	Checked	Disables the remote-diode 1 $\overline{\text{OVERT}}$ interrupt.
		Unchecked*	Enables the remote-diode 1 $\overline{\text{OVERT}}$ interrupt.

**上电复位(POR)状态。*

表5. $\overline{\text{ALERT}}$高状态寄存器

BIT	NAME	FUNCTION
7	Remote $\overline{\text{ALERT}}$ 7	The channel 7 remote-diode temperature exceeds the programmed temperature threshold limit in the remote 7 $\overline{\text{ALERT}}$ High Limit register.
6	Local $\overline{\text{ALERT}}$	The local temperature exceeds the temperature threshold limit in the local $\overline{\text{ALERT}}$ High Limit register.
5	Remote $\overline{\text{ALERT}}$ 6	The channel 6 remote-diode temperature exceeds the programmed temperature threshold limit in the remote 6 $\overline{\text{ALERT}}$ High Limit register.
4	Remote $\overline{\text{ALERT}}$ 5	The channel 5 remote-diode temperature exceeds the programmed temperature threshold limit in the remote 5 $\overline{\text{ALERT}}$ High Limit register.
3	Remote $\overline{\text{ALERT}}$ 4	The channel 4 remote-diode temperature exceeds the programmed temperature threshold limit in the remote 4 $\overline{\text{ALERT}}$ High Limit register.
2	Remote $\overline{\text{ALERT}}$ 3	The channel 3 remote-diode temperature exceeds the programmed temperature threshold limit in the remote 3 $\overline{\text{ALERT}}$ High Limit register.
1	Remote $\overline{\text{ALERT}}$ 2	The channel 2 remote-diode temperature exceeds the programmed temperature threshold limit in the remote 2 $\overline{\text{ALERT}}$ High Limit register.
0	Remote $\overline{\text{ALERT}}$ 1	The channel 1 remote-diode temperature exceeds the programmed temperature threshold limit in the remote 1 $\overline{\text{ALERT}}$ High Limit register.

表6. $\overline{\text{OVERT}}$状态寄存器

BIT	NAME	FUNCTION
7	Remote $\overline{\text{OVERT}}$ 7	The channel 7 remote-diode temperature exceeds the temperature threshold limit in the remote 7 $\overline{\text{OVERT}}$ High Limit register.
6	Local $\overline{\text{OVERT}}$	Local Channel Overtemperature Status Bit. This bit is set to logic 1 when the local temperature exceeds the temperature threshold limit in the local $\overline{\text{OVERT}}$ High Limit register.
5	Remote $\overline{\text{OVERT}}$ 6	The channel 6 remote-diode temperature exceeds the temperature threshold limit in the remote 6 $\overline{\text{OVERT}}$ High Limit register.
4	Remote $\overline{\text{OVERT}}$ 5	The channel 5 remote-diode temperature exceeds the temperature threshold limit in the remote 5 $\overline{\text{OVERT}}$ High Limit register.
3	Remote $\overline{\text{OVERT}}$ 4	The channel 4 remote-diode temperature exceeds the temperature threshold limit in the remote 4 $\overline{\text{OVERT}}$ High Limit register.
2	Remote $\overline{\text{OVERT}}$ 3	The channel 3 remote-diode temperature exceeds the temperature threshold limit in the remote 3 $\overline{\text{OVERT}}$ High Limit register.
1	Remote $\overline{\text{OVERT}}$ 2	The channel 2 remote-diode temperature exceeds the temperature threshold limit in the remote 2 $\overline{\text{OVERT}}$ High Limit register.
0	Remote $\overline{\text{OVERT}}$ 1	The channel 1 remote-diode temperature exceeds the temperature threshold limit in the remote 1 $\overline{\text{OVERT}}$ High Limit register.

表7. 二极管故障状态寄存器

BIT	NAME	FUNCTION
7	RESERVED	Not used.
6	Diode Fault 7	DXP7 and DXN7 are open circuit or when DXP7 is connected to V_{CC}.
5	Diode Fault 6	DXP6 and DXN6 are open circuit or when DXP6 is connected to V_{CC}.
4	Diode Fault 5	DXP5 and DXN5 are open circuit or when DXP5 is connected to V_{CC}.
3	Diode Fault 4	DXP4 and DXN4 are open circuit or when DXP4 is connected to V_{CC}.
2	Diode Fault 3	DXP3 and DXN3 are open circuit or when DXP3 is connected to V_{CC}.
1	Diode Fault 2	DXP2 and DXN2 are open circuit or when DXP2 is connected to V_{CC}.
0	Diode Fault 1	DXP1 and DXN1 are open circuit or shorted together.

Diode Fault Status (0x46)组合框指示在任何远端检测通道中是否存在二极管故障(开路或短路)。

Alert Low Status (0x47)组合框指示实测的本地或远端温度是否已经下降至低于$\overline{\text{ALERT}}$下限寄存器(ALERT Low Limit All Channels (0x30))中设置的门限值。

电阻抵消

所有远端通道均具有电阻抵消功能，以补偿电路板走线和温度二极管中较大的串联电阻。表9给出了Resistance Cancellation (0x4A)标签页中的每个选择框的功能。

点击Read按钮读取寄存器。选中或取消选中相应的功能，然后点击Write按钮，即可修改寄存器。

表8. $\overline{\text{ALERT}}$低状态寄存器

BIT	NAME	FUNCTION
7	Remote $\overline{\text{ALERT}}$ 7	The channel 7 remote-diode temperature falls below the programmed temperature threshold limit in the remote 7 $\overline{\text{ALERT}}$ Low Limit register.
6	Local $\overline{\text{ALERT}}$	The local channel remote-diode temperature falls below the programmed temperature threshold limit in the local $\overline{\text{ALERT}}$ Low Limit register.
5	Remote $\overline{\text{ALERT}}$ 6	The channel 6 remote-diode temperature falls below the programmed temperature threshold limit in the remote 6 $\overline{\text{ALERT}}$ Low Limit register.
4	Remote $\overline{\text{ALERT}}$ 5	The channel 5 remote-diode temperature falls below the programmed temperature threshold limit in the remote 5 $\overline{\text{ALERT}}$ Low Limit register.
3	Remote $\overline{\text{ALERT}}$ 4	The channel 4 remote-diode temperature falls below the programmed temperature threshold limit in the remote 4 $\overline{\text{ALERT}}$ Low Limit register.
2	Remote $\overline{\text{ALERT}}$ 3	The channel 3 remote-diode temperature falls below the programmed temperature threshold limit in the remote 3 $\overline{\text{ALERT}}$ Low Limit register.
1	Remote $\overline{\text{ALERT}}$ 2	The channel 2 remote-diode temperature falls below the programmed temperature threshold limit in the remote 2 $\overline{\text{ALERT}}$ Low Limit register.
0	Remote $\overline{\text{ALERT}}$ 1	The channel 1 remote-diode temperature falls below the programmed temperature threshold limit in the remote 1 $\overline{\text{ALERT}}$ Low Limit register.

表9. 电阻抵消寄存器(4Ah)

BIT	NAME	STATE	DESCRIPTION
7	X	—	Not used.
6	RESISTANCE CANCELLATION 7	Checked	Enables channel 7 resistance cancellation.
		Unchecked*	Disables channel 7 resistance cancellation.
5	RESISTANCE CANCELLATION 6	Checked	Enables channel 6 resistance cancellation.
		Unchecked*	Disables channel 6 resistance cancellation.
4	RESISTANCE CANCELLATION 5	Checked	Enables channel 5 resistance cancellation.
		Unchecked*	Disables channel 5 resistance cancellation.
3	RESISTANCE CANCELLATION 4	Checked	Enables channel 4 resistance cancellation.
		Unchecked*	Disables channel 4 resistance cancellation.
2	RESISTANCE CANCELLATION 3	Checked	Enables channel 3 resistance cancellation.
		Unchecked*	Disables channel 3 resistance cancellation.
1	RESISTANCE CANCELLATION 2	Checked	Enables channel 2 resistance cancellation.
		Unchecked*	Disables channel 2 resistance cancellation.
0	RESISTANCE CANCELLATION 1	Checked	Enables channel 1 resistance cancellation.
		Unchecked*	Disables channel 1 resistance cancellation.

X = 无关。

**上电复位(POR)状态。*

MAX6581评估板

高级用户界面

有两种方法可与器件通信：通过标准用户界面主窗口或通过SMBus/I²C命令，后者可从菜单栏中选择Options | Interface (Advanced Users)获得。软件会弹出Advanced User Interface窗口，其中已选中2-wire interface标签页，利用它可执行SMBus/I²C兼容协议，例如：读字节和写字节。器件使用的唯一SMBus/I²C兼容协议为：

1 - SMBusWriteByte(addr,cmd,data8)

4 - SMBusReadByte(addr,cmd) → data8

组合框和编辑框接受十六进制的数字数据，并且应以0x开始。请参考图3中的工具示例。

在本例中，软件从Device Address 10011010 r/w（二进制）、寄存器地址0x07读取数据。

硬件详细说明

MAX6581评估板为完全安装并经过测试的PCB，用于评估MAX6581 8通道温度传感器。器件监测其自身管芯温度和多达7个外部连接成二极管的晶体管温度。评估板具有板载微控制器，可通过USB端口从PC接收命令。评估板可由USB或3.3V单电源电压直接供电。

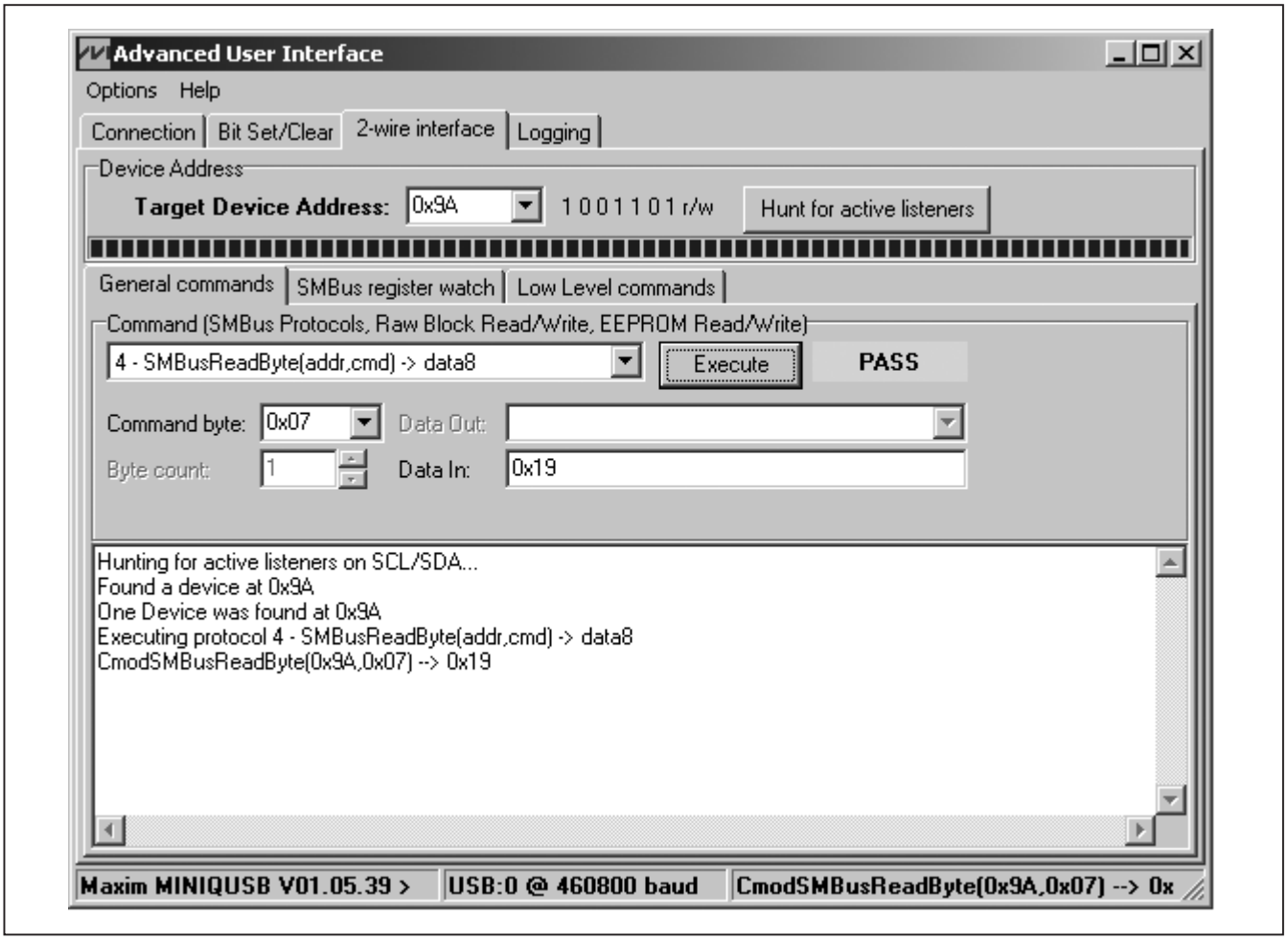

图3. 利用高级用户界面进行简单的SMBusReadByte操作示例

更换二极管

跳线JU1至JU7将2N3906晶体管连接为外部二极管。如需使用不同的二极管，请移除Q1至Q7，然后将二极管(利用双绞线)连接在DXP1至DXP7和DXN1至DXN7焊盘之间。

用户提供的电源

评估板在默认情况下完全由USB端口供电。如需从外部为评估板供电，请将跳线JU9上的短路器移至2-3位置，并在VCC和GND焊盘上施加用户提供的3.3V电源。

MAX6581评估板

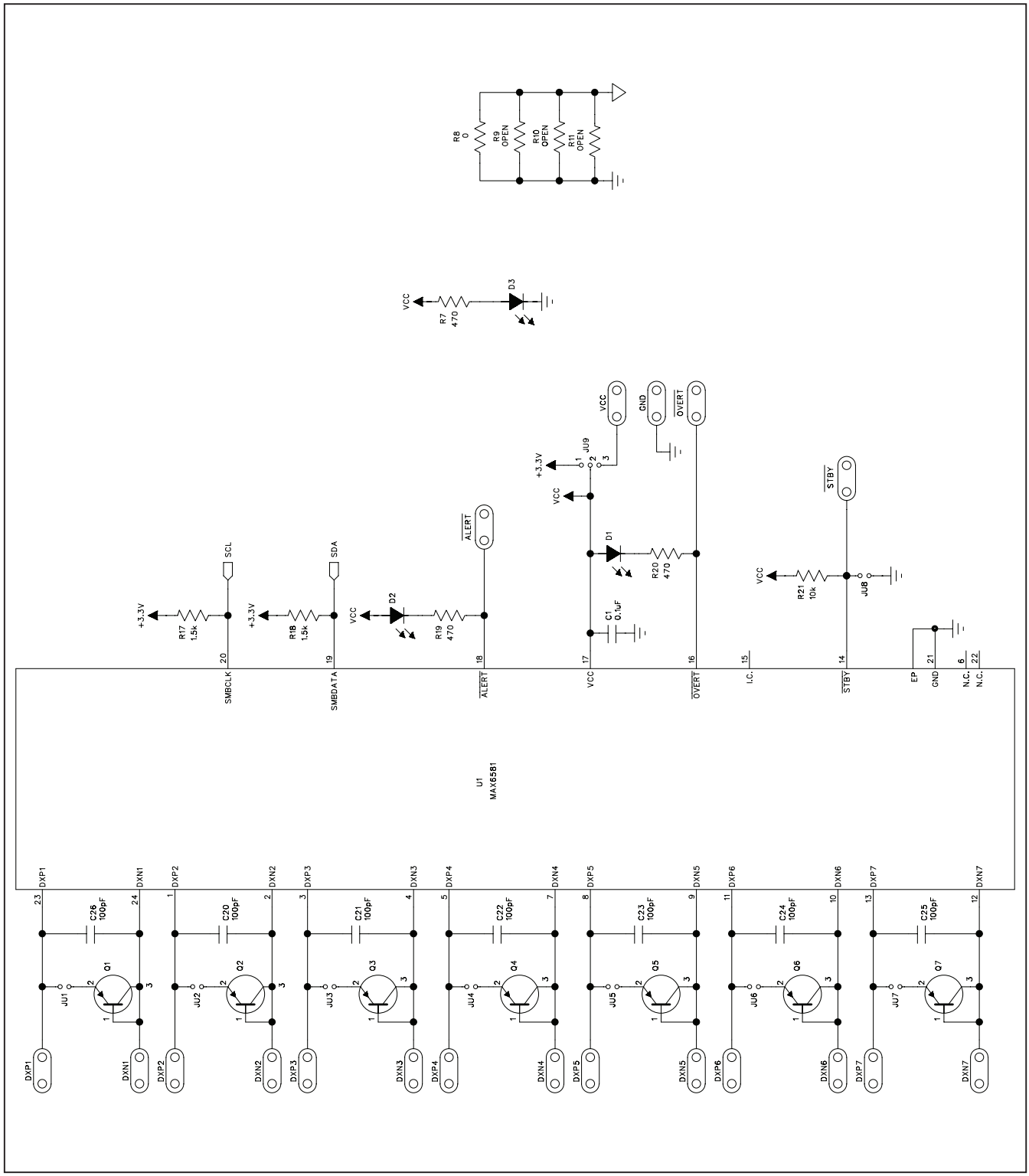

图4a. MAX6581评估板原理图(1/2)

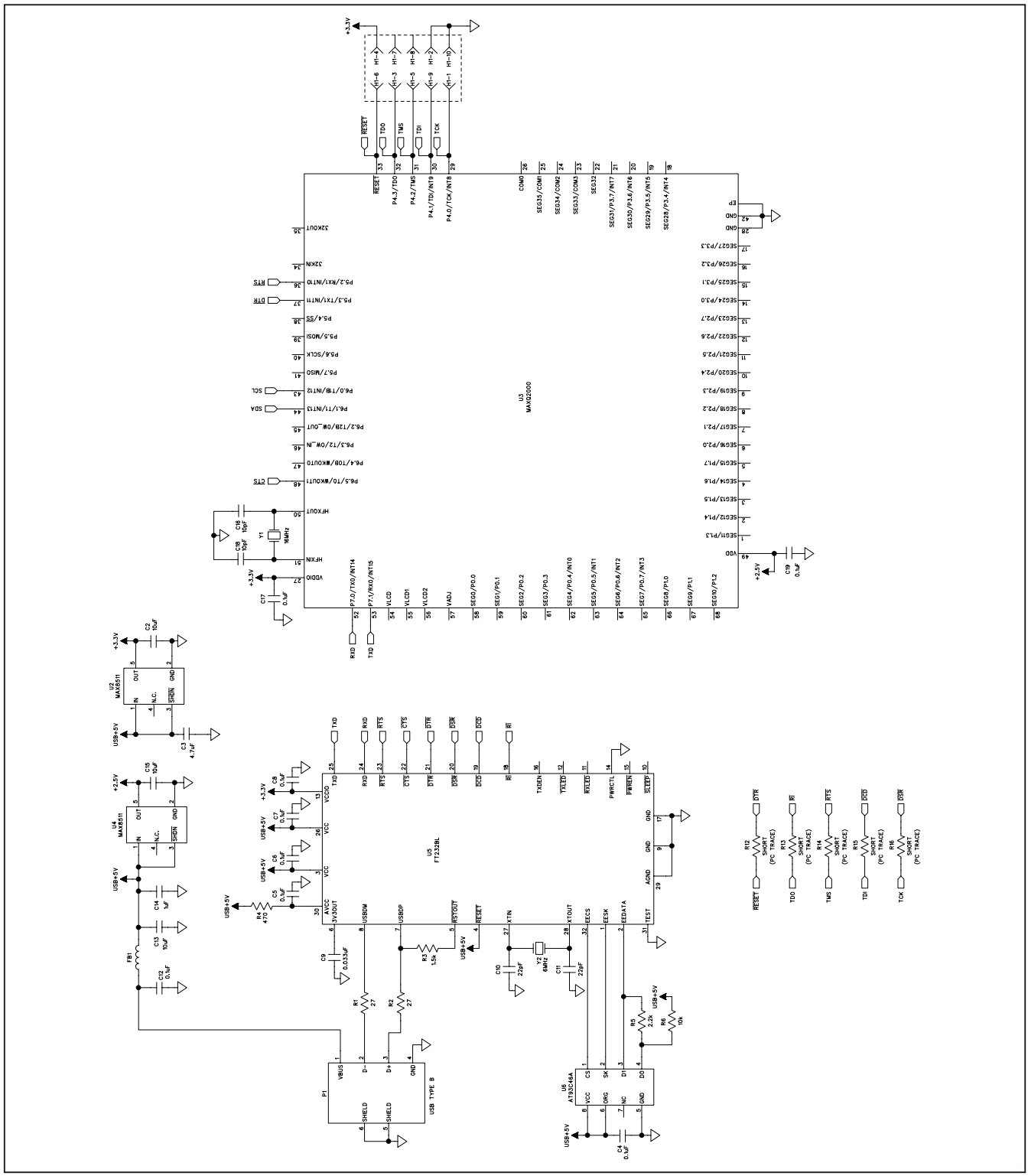

图4b. MAX6581评估板原理图(2/2)

MAX6581评估板

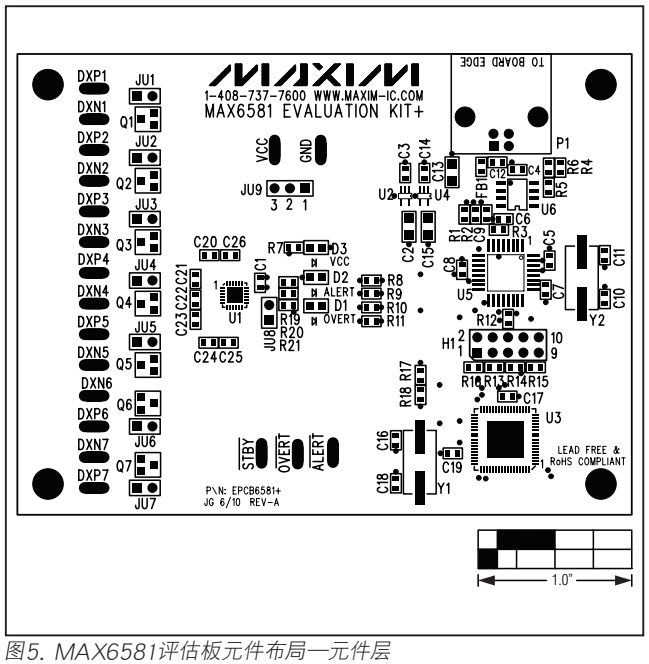

图5. MAX6581评估板元件布局—元件层

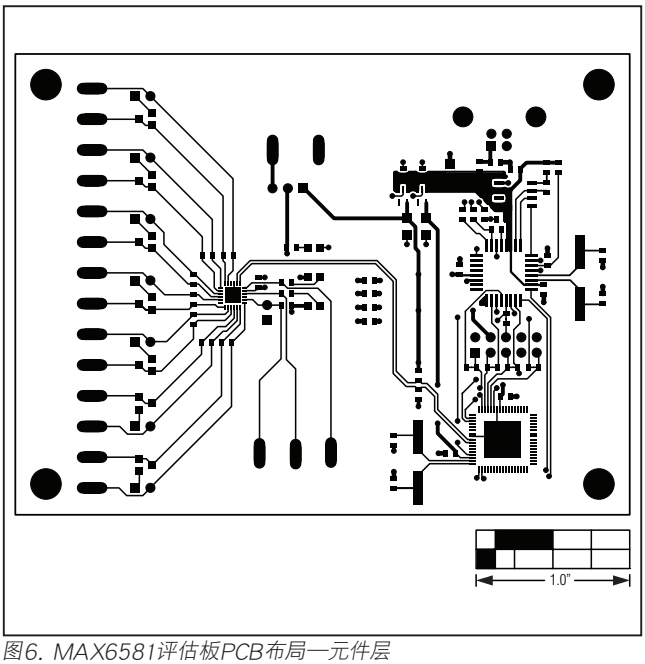

图6. MAX6581评估板PCB布局—元件层

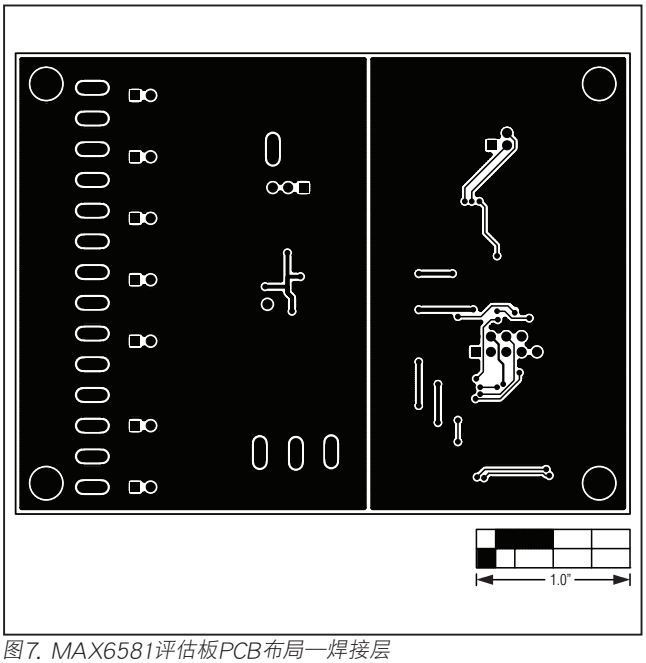

图7. MAX6581评估板PCB布局—焊接层

修订历史

修订号	修订日期	说明	修改页
0	9/10	最初版本。	—

Maxim北京办事处
北京8328信箱 邮政编码 100083
免费电话: 800 810 0310
电话: 010-6211 5199
传真: 010-6211 5299

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