

# Evaluation board description

## Classic PROFET™

### About this document

#### Scope and purpose

This board can be used as a universal daughter board for the evaluation of Classic PROFET™ devices. Please note that on the evaluation board, no Classic PROFET™ devices are assembled by default. It is designed for two types of most used packages SOT223 and DSO8 Classic PROFET™.

### Directions for use

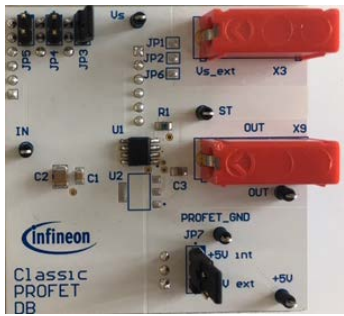
The evaluation board can be used only with one device assembled, not with two in parallel. Before using, please take care to assemble the proper device on the evaluation board. The board is designed to be used along with the PROFETPLUS MOTHERBRD (check documentation [link](#)).

Please take care to connect the right GND Connections at JP3/JP4/JP5 to select the proper ground network. Most Classic PROFET™ products need a 150  $\Omega$  resistor in the ground path of the device; therefore you have to adapt the motherboard. Select the internal or external 5 V supply by means of JP7.

The usage of the evaluation board is limited by the maximum supply voltage of the motherboard (32 V). To use the full operational voltage range (> 32 V) of Classic PROFET™ products, the following settings / adjustments have to be made on the motherboard:

- internal voltage regulation is deactivated (jumper JP1 pulled)
- LEDs D0 and D1 for “OUT Indication” are OFF (S6)
- pins IN are externally supplied

**Table 1 SOT223 product table and evaluation board**

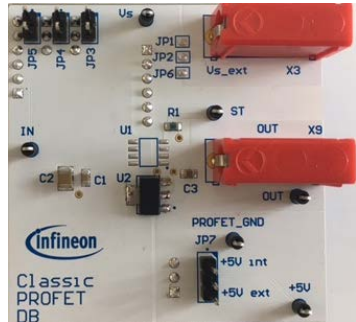
Product table SOT223	Evaluation board with SOT223 package
BTS4140N	
BSP452	
BTS4141N	
BTS4142N	
BTS41KOS-ME-N	

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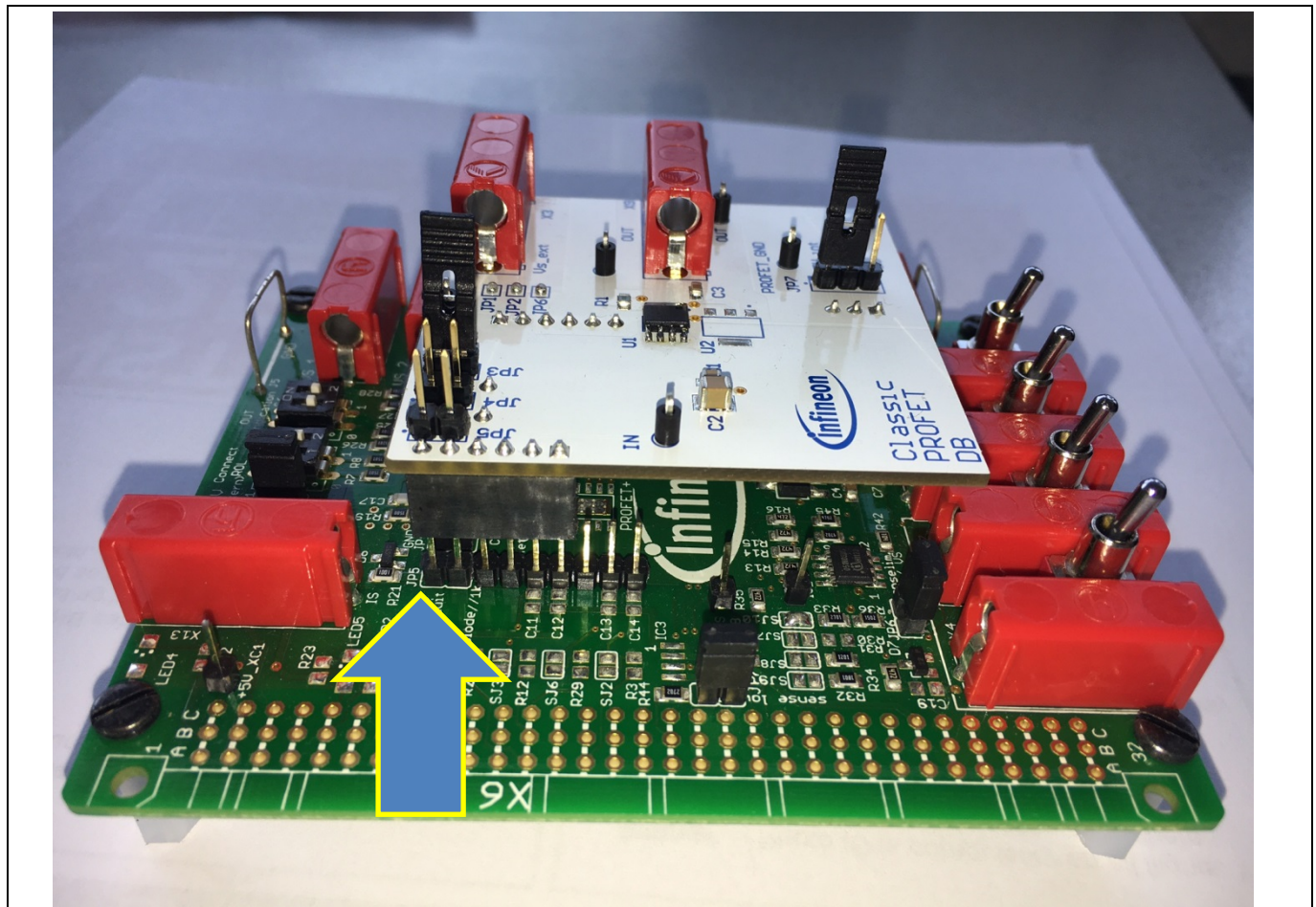
## Classic PROFET™

### Directions for use

**Table 2** DSO8 product table and evaluation board

Product table DSO8	Evaluation board with DSO8 package
BSP742R/T	
BSP752R/T	
BSP762T	
BSP772T	
BTS4300SGA	
BTS4175SGA	
BTS742RI	

In Figure 1 below, the PROFETPLUS Motherboard and Classic PROFET™ evaluation board (daughterboard) can be seen as they have been plugged together.



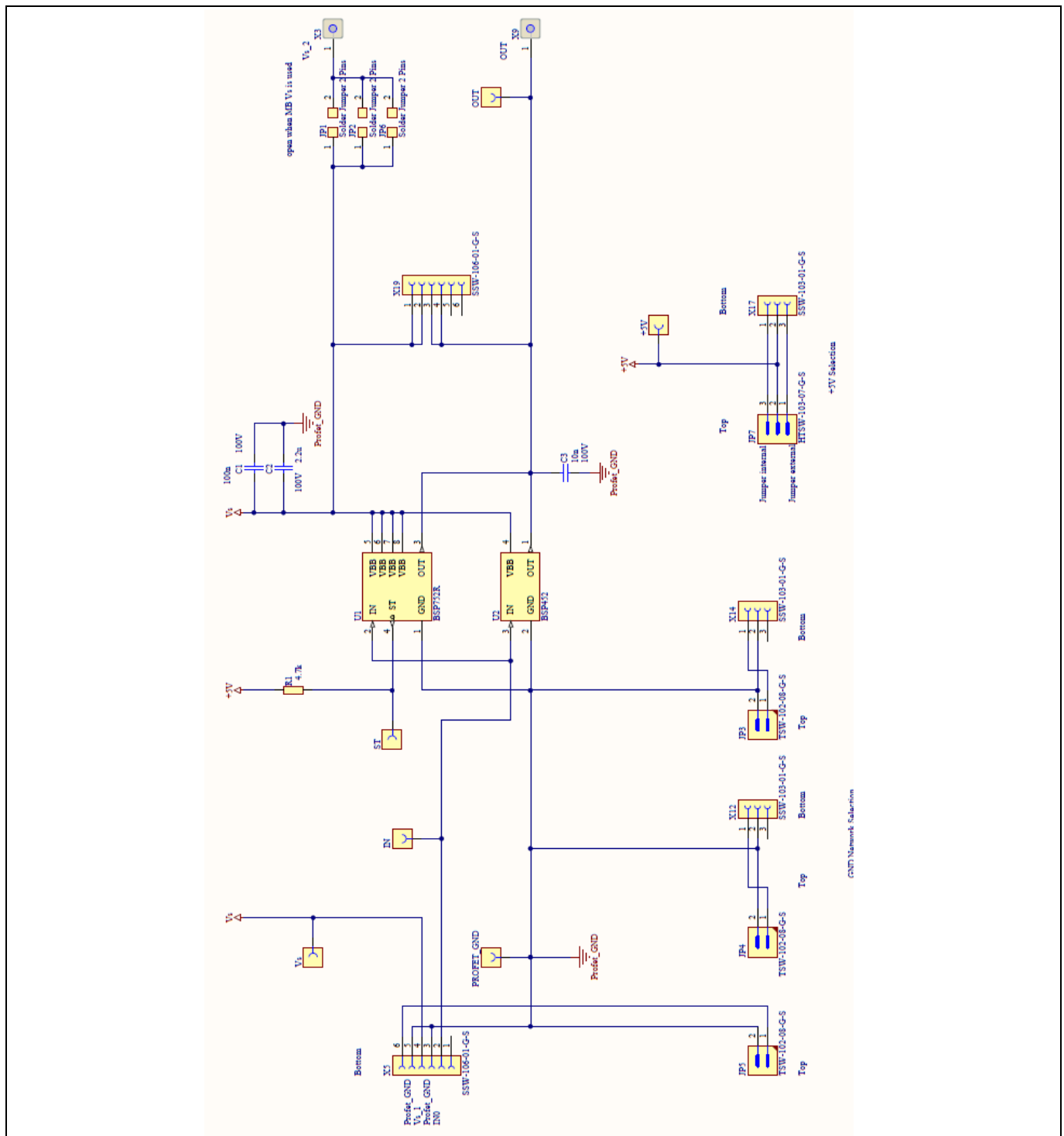
**Figure 1** Motherboard and daughterboard connected

Please take care that motherboard and daughterboard are connected correctly - see Figure 1

**Table 3**      **Test points**

<b>Symbol</b>	<b>Description and functionality</b>
$V_s$	Connection of the powerline $V_s$ for the Classic PROFET™
IN	Input activates Classic PROFET™ in case of high signal
OUT	Output protected high-side power output
ST	Diagnostic feedback, device-dependent please check datasheet
PROFET GND	Device ground of Classic PROFET™
+5 V	Supply for the diagnostic feedback on the daughterboard and for the switches on the motherboard

In Figure 2 below, a Schematic Classic PROFET™ evaluation board is illustrated.



**Figure 2**      **Schematic Classic PROFET™ Evaluation Board**

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**Document reference**

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