

## MIL-STD-1275B testing

### Overview

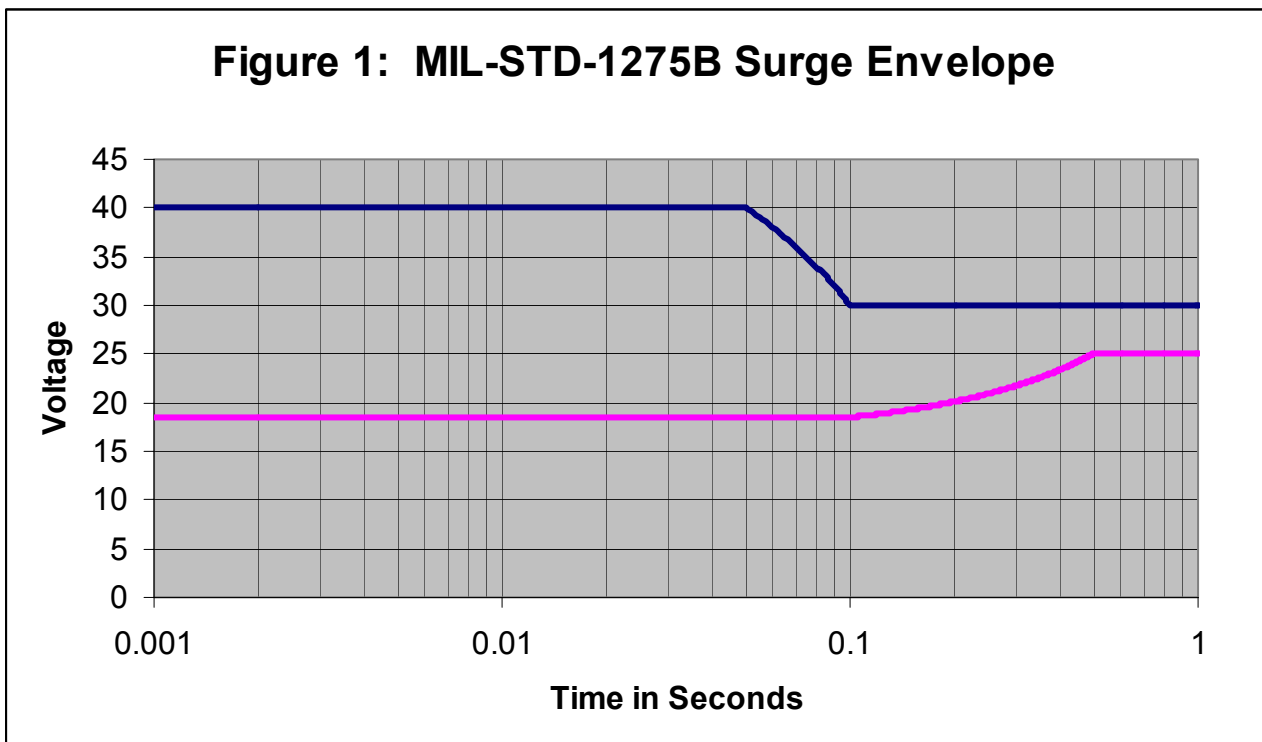
MIL-STD-1275B covers the standards for testing the limits of transient voltage characteristics and steady state limits of the 28V DC circuits of military vehicles. This Application Note will cover how the Xantrex Technology Inc. XDC100-60 or XDC100-120 models can help speed your testing of this common MIL-STD. All of the features utilized in this document can be accessed from the front panel or via the RS232 or GPIB interfaces. To fully utilize this application note, a copy of MIL-STD-1275B is required. You can contact your local Xantrex Technology Inc. representative for a copy of this document

### Section 5.1.2.2 Ripple

Section 5.1.2.2 of MIL-STD1275B, calls for a maximum ripple of 2V. Both the XDC100-60 and XDC100-120 fall well below this level with a peak value of 100mV, or 0.1V. The benefit is a cleaner signal that will allow your testing apparatus to detect noise anomalies of the Unit Under Test (UUT).

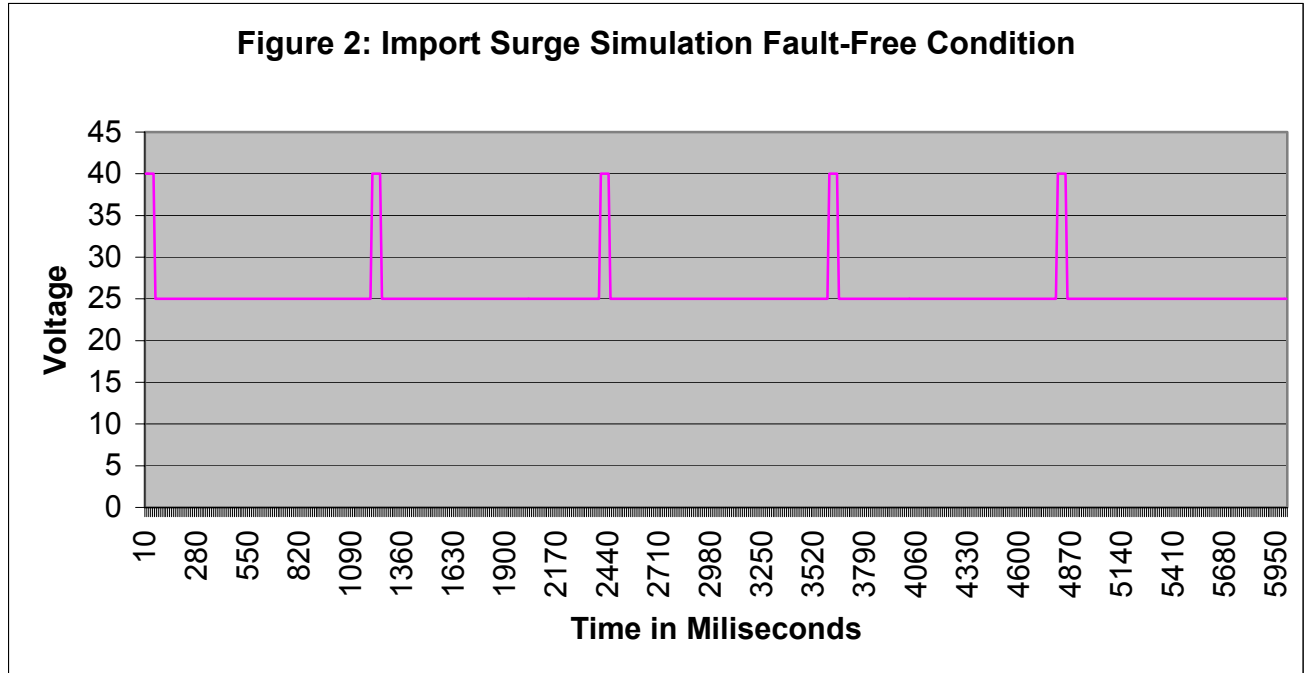
### Section 5.1.2.3 Surge

Figure 1 shows the surge envelope for MIL-STD-1275B. Using the XDC OVP, (Over Voltage Protection), and UVP, (Under Voltage Protection), ensures that your UUT operates within the required levels. As an example, if the OVP is set to 40V and the UVP is set to 18.5V, the output of the power supply will turn off when the voltage to the UUT exceeds the limits of this envelope. Additionally, you can map these conditions to one of the two available auxiliary lines. These lines can then be used to control other shutdown alarms or to trigger other instruments in your test system.



### Section 5.4.2.4 Voltage Surges Imported into Equipment

Using the XDC's onboard Auto Sequence programming capability, you can dedicate one program to generate the surges needed for import surge testing. See Figure 2: Import Surge Simulation Fault-Free Condition for an example of the XDC output for this testing.



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