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Mr. Lawrence Yaphe  
Sine Control International Corp.  
3407 W. Olive., Suite 108  
Burbank, CA 91505

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Dear Mr. Yaphe,

I tested your high frequency improved Sine Control Unit with a fast rise transient, representative of EMP environments (with greater than one megavolt per microsecond ramp). The results were very satisfactory, and are shown in figures 2 and 3 with the test arrangement shown in figure 1. The common mode was tested by inducing the transient into the hot to ground plug connections. The differential mode was tested with the transient between hot and neutral. Several shots were superimposed in order to result in readable test photos.

The impulse impedance of the power cord, hot to neutral and hot to ground, measure close to 150 ohms each, which means that the test pulse was actually one and one half times greater at the induction point than it would be into 50 ohms. With the 5.75 Kilovolt maximum output of the test unit, this gives 8.6 kilovolts into the power cord connection, with a 7 nanosecond rise time (1.2 MegaVolt/microsecond ramp). Pulse decay time 50 nanoseconds to 1/e. (37%).

With the fifty foot extension cord plugged in, and the 50 ohm loaded test line into the shielded enclosure, the Sine Control Unit was loaded as though it had all four receptacles connected with 150 ohms impulse impedance at each of the four receptacle connections.

120VPC87 = Four Plex E.M.P. Protection and tested to IEEE  
587 Standard. Tests conducted on Velonix 587 Surge Generator.

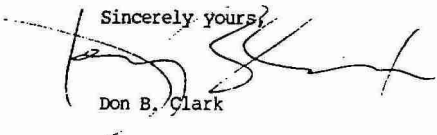
Catagory A 6000 Volt 1.2 x 50 Ms = 2 Volts Over Peak

Catagory B 6000 Volt 3000 Amp 8 x 20 Ms = 30 Volts Over Peak

Catagory C 6000 Volt 100 KH 500 Amp. = 10 Volts over Peek

All Unit tested Transverse and Common Mode

Sincerely yours,



Don B. Clark