

```

1 ///////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
2 //                                                                                               //
3 // File name : oversize_packet/testcase.sv                                                    //
4 // Author    : G. Andres Mancera                                                             //
5 // License   : GNU Lesser General Public License                                             //
6 // Course    : Advanced Verification with SystemVerilog OOP                                  //
7 //           : Testbench - UCSC Silicon Valley Extension                                     //
8 //                                                                                               //
9 ///////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
10
11 `include "../..//testbench/packet.sv"
12 `include "../..//testbench/driver.sv"
13 `include "../..//testbench/monitor.sv"
14 `include "../..//testbench/coverage.sv"
15 `include "../..//testbench/scoreboard.sv"
16 `include "../..//testbench/env.sv"
17
18 program testcase ( interface tcif_driver,
19                   interface tcif_monitor );
20
21 class oversize_packet extends packet;
22     constraint C_payload_size
23     {
24         payload.size() inside {[1501:9000]};
25     }
26 endclass : oversize_packet
27
28 env                env0;
29 int unsigned       num_packets;
30 oversize_packet    testcase_packet;
31
32 initial begin
33     env0                = new(tcif_driver, tcif_monitor);
34     testcase_packet = new();
35
36     // Connect packet handle from driver to testcase_packet
37     env0.drv.xge_mac_pkt = testcase_packet;
38     num_packets = $urandom_range(40,60);
39     tcif_driver.init_tb_signals();
40     tcif_driver.make_loopback_connection();
41     tcif_driver.wait_ns(2000);
42     env0.run(num_packets);
43     tcif_driver.wait_ns(200000);    // Increased drain-time
44     $finish;
45 end
46
47 final begin
48     int unsigned    num_pkts;
49     int unsigned    num_errors;
50     num_pkts        = packet::get_pktid();
51     num_errors       = env0.scbd.num_of_mismatches;
52     $display("\nTESTCASE: ----- End Of Simulation -----");
53     $display("TESTCASE: Number of packets sent           : %0d", num_pkts);
54     $display("TESTCASE: Number of mismatched packets : %0d", num_errors);
55     if ( num_errors==0 )
56         $display("TESTCASE: ----- PASSED ----- \n");
57     else
58         $display("TESTCASE: ----- FAILED ----- \n");
59 end
60

```

61 | endprogram
62