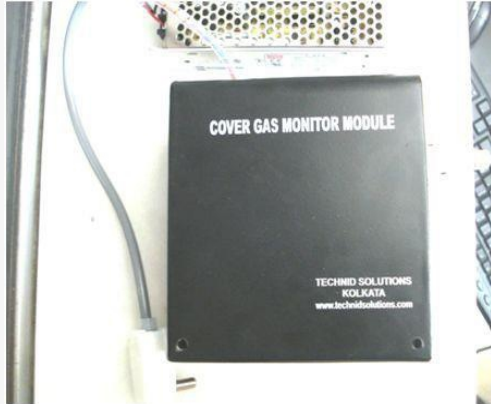

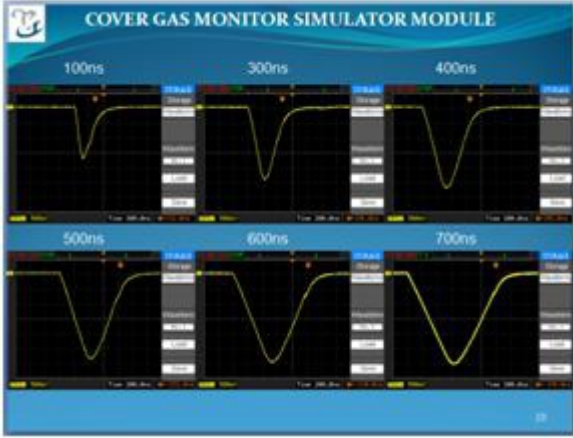
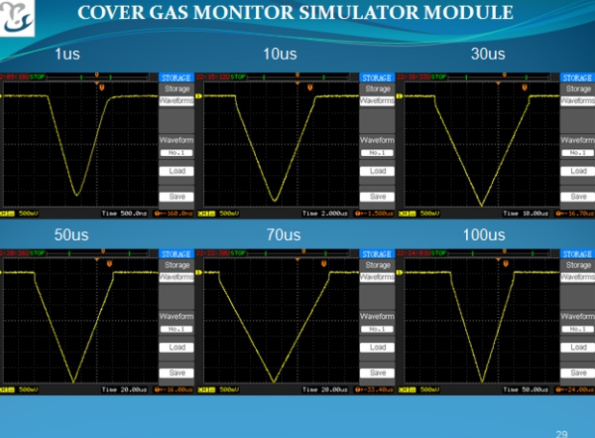




**Table 1 - COVER GAS MONITOR DATA ANALYSIS MODULE**

 <p>COVER GAS MONITOR MODULE TECHNID SOLUTIONS KOLKATA www.technidsolutions.com</p>	
 <p>COVER GAS MONITOR SIMULATOR MODULE</p> <p>100ns, 300ns, 400ns, 500ns, 600ns, 700ns</p>	 <p>COVER GAS MONITOR SIMULATOR MODULE</p> <p>1us, 10us, 30us, 50us, 70us, 100us</p>
<ul style="list-style-type: none"><li>• It is an FPGA based, PC controlled system which is used to generate 5 on-board triangle waveform generators / oscillators with different frequencies, rise time / fall time and amplitude and are summed to simulate the output of HPGe detectors as a response for several isotopes in the fission gas mixtures sample from the cover gas.</li><li>• The frequency of the triangle waveforms vary from 1Hz to 10KHz whereas the rise time of the triangle waveforms vary from 100ns to 100us.</li><li>• The amplitude level of each triangle waveform is varied from 3.5 Volts to 35mV using digital potentiometers.</li><li>• The module is fully controlled by the TechnidCGM GUI developed in JAVA on a desktop PC using Rs-232 Interface.</li><li>• The resultant pulses will be fed to Neutron Power Module described earlier for further analysis to find certain isotopes in the gas mixture.</li><li>• Cover Gas Monitor card use Actel FPGAs where the design frequency or the system clock frequency is 100MHz.</li><li>• Libero IDE is used for design, development and testing of FPGA based designs and development.</li></ul> <p><b>THIS HAS BEEN DEVELOPED FOR IGCAR, KALPAKKAM FOR REACTOR INSTRUMENTATION APPLICATION</b></p>	