label	description	stimulus generated	checkers
randomization sequence	In this sequence we will randomize the control module to make sire that the overall functionality of the design	randomization for all the inputs with constraining the reset to be on 5% of the time and that the SDA cant change at the positive edge of the SCL to not violate the protocol setup time	we check the functionality of the outputs using checkers comparing the output with the reference output from golden model we check the ACK generation feature and the write/read enable property using assertion.
reset feature	this is a directed seequence to check the behaviour of the reset	directed	we check the functionality of the outputs using checkers comparing the output with the reference output from golden model we also use assertion to check the reset operation.
start detection feature	this is a directed seequence to check the detection of the start sequence	directed	we check the functionality of the outputs using checkers comparing the output with the reference output from golden model
stop detection feature	this is a directed seequence to check the detection of the stop sequence	directed	we check the functionality of the outputs using checkers comparing the output with the reference output from golden model
address detection	this is a directed sequences where the address is/isnt the address of the traget to check the behaviour of address detection	directed	we check the functionality of the outputs using checkers comparing the output with the reference output from golden model we check the ACK generation feature and the write/read enable property using assertion.
read/write detection	this is a directed sequences to check the detection of the write operation and generation of the read/write enables based on the message.	directed	we check the functionality of the outputs using checkers comparing the output with the reference output from golden model we check the ACK generation feature and the write/read enable property using assertion.