## **Abstract**

Timer is most useful module in many automotive chips, it generates the different waveforms that are useful in many applications like motor controlling, and sound generation .The modular timer system (MTS) provides multiple modes for each unified channel (UC), any of which may be selected depending on the requirements of the customer application. This report contains cover a wide range of the MTS functionality, along with module background information on the and configuration of MTS for different applications in SoC like sound generation, motor control, brightness control, level control in car thru ugh this cluster Chip. The second phase of project contains characterization of 10 pads and creation of 10 Ring for SoC. Input/Output buffers are the interface between the core circuitry and the external world.

I/Os are responsible for proper functioning of the entire chip and guard the core. To select the particular pads for IO Ring, it is required to understand the designed I/O under the practical conditions to verify the driving strength of the chip, delay in signal, power etc.

As they all are heavily dependent on the I/O irrespective of whether the core is compliant with the specifications or not .After considerations of all these factors, 10 Ring has been generated by using Tel scripts with support of Tool.