

## **ABSTRACT**

This paper focuses on how the company can solve test machines insufficiency without purchasing additional test machines. The researcher determined solutions on how to maximize ASL group's current number of test machines 1.) increase the test sites of RF50Y product from x1 site to x4 sites and 2.) apply Queuing Theory to ASL production. The proposed solutions had been applied and results are presented, For the test site's of RF50Y the researcher proposed two ways; increase to x2 sites or increase to x4 sites. Results showed that x4 sites is the best way to maximize test machines in ASL group. Application of Queuing Theory helped operators maximize testing time of all ASL group's production lots compared to previous testing time without Queuing Theory. After gathering all data, increasing RF50Y test sites to x4 sites and application of Queuing Theory in ASL group is suggested to maximize test machines capacity and purchasing additional test machines are not needed. Thus, all ASL product's forecasted demand can be accommodated by the company.