

IIT Madras 5G TestBed

Scaling The MM-Wave Implementation of the Transmitter Chain Currently Operating at 122.88 MHz to 491.52 MHz

PROJECT GUIDES:

Dr. Nitin Chandrachoodan Dr. Radha Krishna Ganti

SUBMITTED BY:

Navrita Beniwal EE18M049 M.Tech EE5

ABSTRACT

The Problem statement was to scale the Transmitter Chain running at 122.88 MHz to 4x speed, i.e. 491.52MHz.

The Single TX chain provided, consisted of the BBU (Base Band Unit) & RRH (Remote Radio Head) part. The modules in BBU ran at 100MHz, whereas the modules in RRH worked at 122.88MHz. The BBU & RRH were connected to each other through ECPRI which worked at 156.25MHz.

Using parallelisation, I have successfully run the 2X & 4X simulations & also implemented them on the ZCU-111 Board.

NOTE

Further details can not be provided, since my work comes under the confidential property of 5G Testbed Lab, at the Electrical Engineering Department of IIT Madras.