C-Tarang™: C-DOT LTE/5G-NSA Radio Access Network (RAN)

C-DOT **C-Tarang™** series of Radio Access Network technology provides a complete end-to-end carrier-grade solution targeted at Operators of LTE/5G-NSA networks. C-DOT RAN is macro-class solution consisting of baseband units (BBU), Remote Radio Head (RRH), RAN Element Management System (EMS), and Network Management System (NMS).

The RAN technology has been indigenously developed, matured over multiple generations and is proven in multiple telecom operator networks (TSPs) and LTE for Railways (LTE-R). C-DOT RAN is proven for mass manufacturability and has partnered with multiple technology transfer partner like ITI, BEL and ECIL who have started supplying the RAN to different customers.

C-DOT's well-developed supply-chain ensures RAN technology supply from trusted sources.

Key Product Features

- 3GPP Release-15 compliant
- Carrier-grade multi-sector Macro-class RAN solution
- Supports both TDD and FDD mode of operation.
- Bandwidth support: 5/10/15 and 20MHz
- Scalable, Modular and Software Defined Radio (SDR) based RAN technology
- Indoor Baseband Unit (BBU) and Outdoor IP67 Remote Radio Head
- 500 Active Users and 2,000 connected users per BBU.
- Support 2x2 and 4x4 MIMO in downlink.
- Remote Radio Head in multiple bands
    - Band-71 (600MHz), Band-28 (700MHz), Band-20 (800MHz), Band-5 (850MHz) and Band-8 (900MHz)
    - Band-3 (1800MHz), Band-1 (2100MHz) and Band-41 (2500MHz)
    - Under development: Band-40 (2300MHz) and Band-78 (3500MHz)
- RRH: 40W (46dBm) average power per antenna port
- BBU backhaul: Support for both 1Gbps and 10Gbps.
- Support both standard QCI and Extended QCI.
- TEC certified RAN technology
- QM-333/EMI/EMC/Environmental/Safety certified in NABL accredited labs

BBU 300 series

BBU 500 series

C-DOT BBU in ODU Chassis

RRH 2T2R

RRH 4T4R

C-DOT RRH on Tower