Toward Ubiquitous mmWave Connectivity: RIS-Aided mmWave with O-RAN RIC

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Smart Networks and Services International and European Cooperation Ecosystem

About LITEON Technology Corp.



LT =ON

Founded: in 1975 Headquarters: Taipei, Taiwan

A world-leading provider of network solution, opto-semiconductor, power supply management and key electronic products with global manufacturing facilities.

LITEON listed in the DJSI World Index and Emerging Market Index.

EMPLOYEES IN

30+ COUNTRIES

Headquartered in Taiwan

\$ 5.5B Market Cap

> **46** Factories

SCF INDUSTRY AWARDS 2023

WINNER- LITEON and the National Yang Ming Chiao Tung University Secure Communication Scheme



\$ 6.00B Annual Revenue

334 Worldwide Location



LITEON BUSINESS DOMAINS



LITEON mmWave & RIS Solution Brief

To solve the pain point of mmWave network deployment, LITEON's mmWave radio unit is paired with RIS, and through RIS as a node, the mmWave radio unit and RIS can be controlled by RIC, which can increase the coverage rate, achieve the demand of low latency and high transmission, and satisfy the different application scenarios.



What we offer:

- mmWave RU n257/n258
- ➢ RIS (Support E2)
- O-RAN Near-RT RIC
- DU/CU Partners

Our solution advantages:

- Energy Saving & Carbon Reduction (ESG)
- Coverage Extension (+ 20~30%)
- Cost Efficiency (20~30%)
- Planification Enhancement

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- Enhancing mmWave signal coverage with RIS control.
- Establish RIS as a new node, and support data transmission method with RIC through E2 interface.
- RIS can be controlled by Near RT-RIC, which enables the platform to have autonomous control capability.



FlexFi FR2 mmWave Radio Unit Indoor Portfolio



FR2 mmWave Indoor Radio Unit

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Easy to Install and play



Key Features

- O-RAN Split 7.2A
- Band : n257
- Customized Bandwidth : Up to 400MHz
- 8x8 antenna array for 2T2R
- EIRP 46dBm for Indoor
- SCS : 120kHz
- Support IPv4, IPSec.
- Support Beam sweeping
- Support GNSS, IEEE 1588v2, Sync-E
- Power Supply :54 Vdc
- Support O1 interface for SMO
- Dimensions (W/H/D) : 330 x 330 x 60 mm
- Weight : 4kg

Deployment

- Indoor deployment
- Dense Shopping Mall
 Train Station
 Campus