

## Laguna OLA PTMP System

2048 QAM  
1.2Gbps Throughput

The Laguna OLA System is a point-to-multipoint (PtMP) system, the access point (AP) as master point and remote terminal (RT) as terminal point, working in FDD mode between uplink (UL) and downlink (DL), TDMA mechanism is adopted to communicate between AP and RT.

The Laguna OLA system can provide cost-effective and rapidly-implemented Fixed Wireless Access (FWA) solution, suitable for Small and Middle Enterprise (SME) and residential wireless access scenario.

### Laguna OLA System

#### Radio Feature

- 10.5GHz,13GHz licensed band, other band can be customized
- Up to 56MHz bandwidth
- Up to 2048 QAM DL modulation
- Up to 25km coverage

#### Security

- Private physical and MAC protocol
- AES256

#### Link Features

- AMC
- ATPC
- Dynamic Bandwidth Allocation

#### QOS

- 2-stage hierarchical scheduling of traffic tunnels  
1st Level: Scheduling between multi traffic tunnels based on service class : 4 service classes: High-GBR, Low-GBR,Non-GBR,BE
- 2nd Level: Scheduling within each traffic tunnel based on prioritization of queues: 8 queues Priority, Support SP (Strict Priority) and WRR(Weighted Round Robin ) Strategy, Traffic prioritization based on L2 CoS or L3 DSCP



#### High Throughput

- >1.2Gbps per sector
- Up to 32 RTs access, software upgrades support 64 RTs access
- L2 and L3 header compression

#### Synchronization

- ITU-T G.8262,G.8264 (Synchronous Ethernet)

#### Management

- Support Wi-Fi connection for configuration
- Support local Web UI configuration
- RT configuration through AP Web UI
- SNMPV3 protocol

#### Ethernet Standards

- MEF Carrier Ethernet E-LAN \E-Tree\E-line compliance
- IEEE802.1d
- IEEE802.1q(VLAN)
- IEEE802.1ad(QinQ)
- IEEE802.1ah
- IEEE 802.1ag
- Jumbo 9600B
- ITU-T Y.1731
- IEEE 802.3

#### Easy Deployment

- Support RT auto access without manual configuration
- Support instrument free acceptance

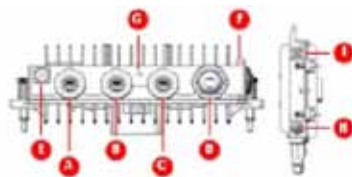
## TX Specifications

TX Power (dBm)	AP: up to 23 ; RT: up to 28 @ 10.5GHz and 13GHz
Frequency (MHz)	DL:10,507.5 to 10,640.5 ; UL:10,157.5 to 10,290.5 @ 10.5GHz
	DL:13,017-13,143 ; UL:12,751-12,877 @ 13GHz A Sub-band
	DL:13,115-13,241 ; UL:12,849-12,975 @ 13GHz B Sub-band
BW (MHz)	7/14/28/56
Duplex Spacing (MHz)	350 @ 10.5GHz, 266 @ 13GHz
Modulation (AMC)	DL: up to 2048 QAM; UL: up to 256 QAM
Line Capacity (Gbps)	1.2
Access Capacity	Up to 32, software upgrades support 64 RT connection
Delay(ms)	1

## DL RX Sensitivity Specification

<b>BW</b>	<b>QPSK Strong</b>	<b>BER=10<sup>-6</sup></b>
7M	QPSK Strong	-95.5dBm @10.5GHz and 13GHz
14M	QPSK Strong	-93dBm @10.5GHz and 13GHz
28M	QPSK Strong	-90dBm @10.5GHz and 13GHz
56M	QPSK Strong	-87dBm @10.5GHz and 13GHz

## AP/RT Interface



Index	Port Name	Port Type	Description
A	P&E	AP/RT: Ethernet	P&E input / traffic / inband management
B	GE1	100/1000Base-T, RJ-45 interface	P&E input /outband &inband management
C	GE2		Traffic / inband management
D	GE3		AP: Ethernet 2.5Gpbs SFP interface ; RT: reserve
E	RSSI	AP/RT: BNC female interface	RSSI measurement
F	GND	AP/RT: Ground	Ground cable connection
G	Indicator	AP/RT: LED indicator	Operating status indication.
H	USB	AP/RT: USB2.0 and reset button	Wi-Fi module connection and reset
I	Reserve	AP/RT: Reserve	Reserve

## Power, Mechanical, and Environmental Specification

Total Dimension (L x W x H)	272mm x 280mm x 95mm
Weight (kg)	<4
Power Consumption	<49W

## Antenna Specifications

AP Antenna	Type 1	16dBi , vertical antenna @10.5GHz and 13GHz
	Type 2	16dBi, horizontal antenna @10.5GHz and 13GHz
RT Antenna	Type 1	Panel 25dBi @10.5GHz and 13GHz
	Type 2	Parabolic 0.3m 28.7dBi @10.5GHz and 13GHz
	Type 3	Parabolic 0.6m 33.5dBi @10.5GHz and 13GHz
	Type 4	Parabolic 1.2m 40.2dBi @10.5GHz and 13GHz
Operating Temperature	-40°C~ 55°C	

## DC PI Interface



Index	Port Name	Port Type	Description
1	DC IN	Input interface	48V DC power supply interface
2	GE	Backhaul interface	Traffic data backhaul
3	NMS	Backhaul interface	Management data backhaul
4	P&E	Device Connection interface	Power supply output and traffic data interface
5	MGMT	Device Connection interface	Management data interface

## AC PI Interface



Index	Port Name	Port Type	Description
1	AC IN	Input interface	220v AC power supply interface
2	GE	Backhaul interface	Traffic data backhaul
3	NMS	Backhaul interface	Management data backhaul
4	P&E	Device Connection interface	Power supply output and traffic data interface
5	MGMT	Device Connection interface	Management data interface