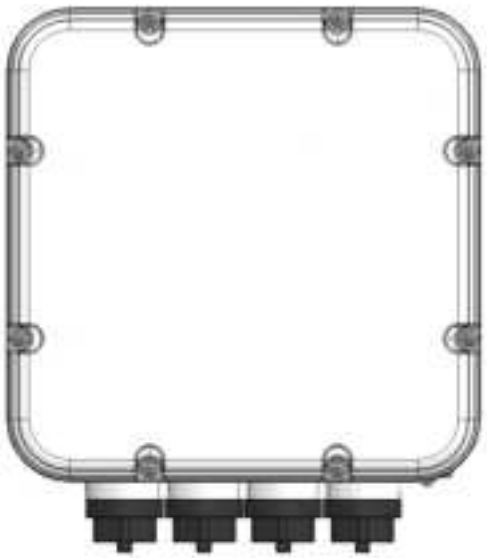
GGS-001388-001
July 2023

PF54A0-mb480-85

SPECIFICATION



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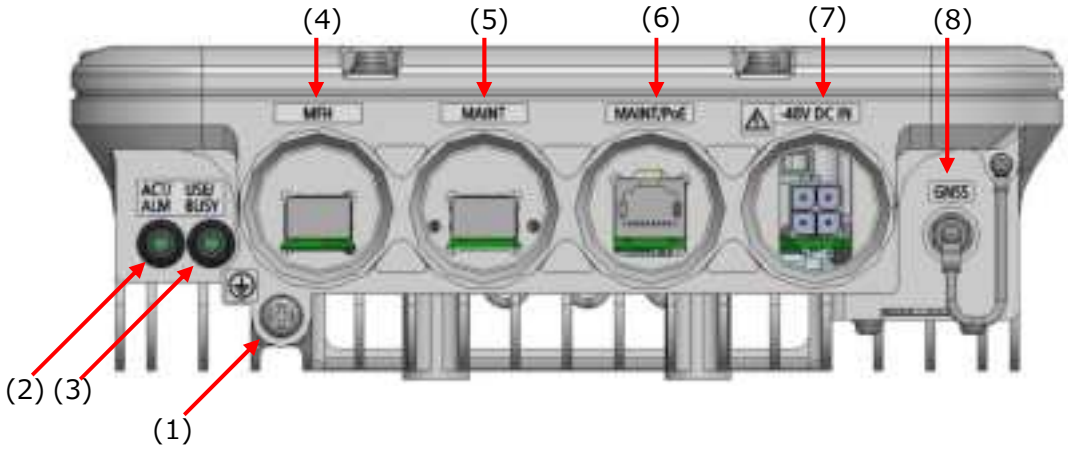
1.Interfaces

1.1 Location of Terminals and LEDs



No.	INDICATION	PURPOSE
(1)	**ACT/ALM**	LED display
(2)	**USE/BUSY**	LED display
(3)	⏚	Grounding terminal (M5)
(4)	MFH	SFP+ port (10Gbps) / SFP28 port (25Gbps) O-CU/O-DU connection port (C/U/S/M-Plane)
(5)	MAINT	SFP port (1Gbps)
(6)	MAINT/PoE	RJ45 Ethernet port / LTPoE++(90W type) / PoE++(71W type)
(7)	–48V DCIN	DC power supply terminal (SELV)
(8)	GNSS	GPS receiving terminal (SMA-J) * For future expansion

1.2 Equipment LED Display

No.	O-RU status	ACT/ALM	USE/BUSY
1	No power or hardware failure	Unlit	Unlit
2	Hardware failure	**Red**: Lit	Unlit
3	Communication NG	**Green**: Lit	**Red**: intermittent flashing (one time)
4	Synchronization failure	**Green**: Lit	Red: intermittent flashing (two times)
5	Starting	**Green**: Flashing	Unlit
6	Waiting for operation	**Green**: Lit	Unlit
7	In operation	**Green**: Lit	**Green**: Lit
8	Communication failure (Other than the reason of communication failure or synchronization failure)	**Green**: Lit	**Red**: Lit
9	Warm UP	**Green**: Lit	Red: Continuous flashing (0.2 seconds)

2.Specifications

2.1 Interfaces

O-RU supports the following interfaces according to the IEEE standard.

2.1.1 Ethernet Interfaces

Interface	Specification	Connector	Description
25GBASE-SR **10GBASE-SR**	25 Gbit/s 10 Gbit/s	LC (SFP28 Module) LC (SFP+ Module)	1 ports of Traffic Interfaces Port : MFH (O-RAN op7.2)
1000BASE-SX	1000 Mbit/s	LC (SFP Module)	1 ports of maintenance Interfaces Port : MAINT
1000BASE-T **100BASE-TX** **10BASE-T**	1000 Mbit/s 100 Mbit/s 10 Mbit/s	RJ-45	1 ports of maintenance Interfaces Port: MAINT/PoE

2.2 Support Functions

O-RU supports the following functions.

2.2.1 Radio functions

Functions	Supported Items
TX Power	+24.0 dBm Per Port ; CBRS 3.55-3.7 GHz
MIMO	2T2R
Radio access technology	NR TDD
TDD configuration	Entry1 is DDDSU, FR1.30-2 Entry2 is DSUUU, TDD1 Entry3 is DDDSUUUUDD CBRS TDD1 Entry4 is DDDSUUDDDD CBRS TDD2
Channel Separation	40MHz x1CC
Nominal sub-carrier spacing	30kHz
SSB sub-carrier spacing	30kHz
Nominal FFT size	4096
RU category	Category B
RU beamforming type	No beamforming
PTP Full Timing Support (G.8275.1)	TRUE (IEEE1588v2 Slave)
Topology configuration	lls-C1 (can also apply lls-C2)
M-Plane architecture model	Hierarchical model
Transport Network	IPv4
Modulation	OFDM
	QPSK / 16QAM / 64QAM / 256QAM

3.System performance

3.1 Antenna Types

Item	DESCRIPTION
Internal antenna type O-RU	PF54A0-mb480-85: NWA-A14522

3.2 Power Consumption and Size

Item		DESCRIPTION
Power Consumption		60 W (typical)
Weight	**O-RU**	Approximately 3.6 kg
Dimensions	**(Width × Height × Depth)**	227 mm × 236 mm × 76 mm (Mounting Brackets are not included)

3.3 Environmental Conditions

3.3.1 Temperature

Condition		Requirements
Performance Guarantee	**(in windless condition)**	–33 to +45°C
	(wind speed is 1 m/s)	–33 to +50°C
Operating		–40 to +55°C
Storage		–40 to +70°C

3.3.2 Humidity

Condition	Requirements
Operating	95%RH all-weather (IP65)
Transportation	95%RH
Storage	95%RH

3.4 Power Input Requirements

3.4.1 DC IN

Condition	Requirements
Input Voltage Range	–48.0 V DC (–40.5 to –57.0 V DC) ETSI EN 300 132-2
Connector	molex® Mega-Fit Connector [172064-0004]

3.4.2 PoE

Condition	Requirements
Input Voltage Range	41.0 to 57.0 V DC LTPoE++ Compliant PoE++ Compliant
Connector	RJ-45 Connector