




SOLiD

Simple | Easy | Flexible | SOLiD

SOLiD O-RU/FHM

SOLiD O-RU and FHM meet the specifications of the O-RAN interface covering 4G to 5G. The FHM connects to the O-DU via eCPRI and provides signal to the O-RU, while the O-RU delivers signals directly to the user equipment.

SOLiD O-RU and FHM provide abundant solutions for coverage extension under various environment with any vendor's O-DU. To meet the needs of any customer, SOLiD O-RU and FHM support frequency bands from single-band to tri-band, which also support 2 or 4 layers. The SOLiD O-RU is also designed to be utilized without constraints across various use cases, supporting RF output levels from low to medium. It is not only suitable for indoor use cases, but also deployable in outdoor environments.



SOLiD O-RU & FHM

O-RAN is an evolved Radio Access Networks specification based on the principles of intelligence and openness. It is driving the mobile industry toward an ecosystem of innovative, multi-vendor, inter-operable, and autonomous RAN, with reduced cost, improved performance, and greater agility.

SOLiD O-RAN solutions include O-RU (O-RAN Radio Unit), and FHM (Fronthaul Multiplexer). The O-RU and FHM provide Mobile Network Operators (MNOs) and enterprises with a cost-effective and capable O-RAN solution for public and private networks.

O-LRU Low-power Radio Unit



Functions & Features

- O-RAN.WG4.CUS/MP. Specification.v6.0, CAT-A
- 4G LTE, 5G NR Sub-6GHz
- Single-band 4T4R
- Dual-band 2T2R
- Internal antenna

O-MRU Medium-power Radio Unit



Functions & Features

- O-RAN.WG4.CUS/MP. Specification.v6.0, CAT-A
- 4G LTE, 5G NR Sub-6 GHz
- Single-band, Dual-band, Triple-band, Quad-band
- A wide range of output, from low-power, medium-power

FHMc Fronthaul Multiplexer Copper



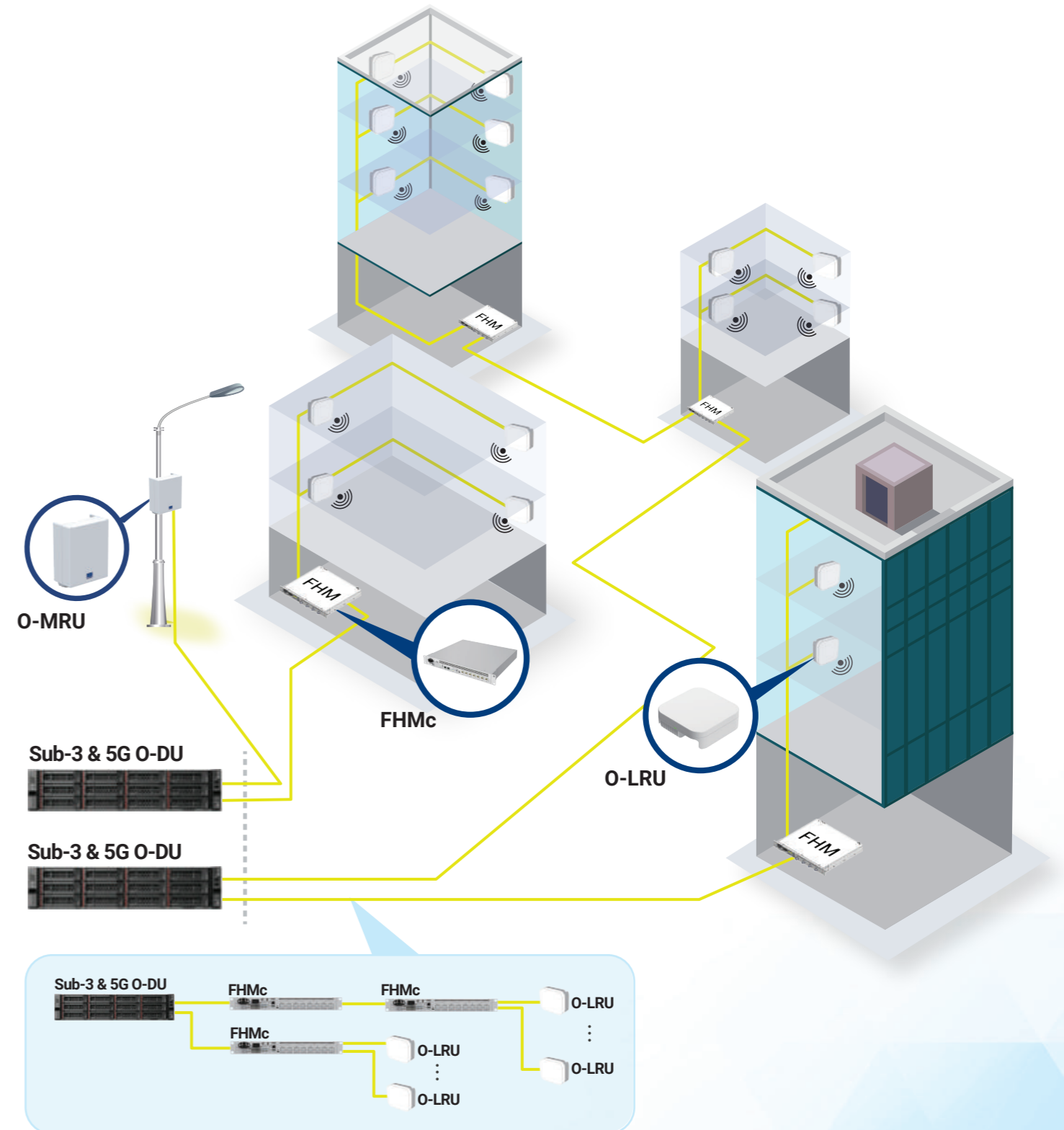
Functions & Features

- O-RAN.WG4.CUS/MP.Specification.v10, Fronthaul Multiplexer
- Copy and Combine: Shared cell features
- 4G LTE, 5G NR Sub-6 GHz
- Supports daisy chain units
- 7-16 O-RU connections
 - 7 x 10GbE Cat 6A with PoE in FHMc
 - 14 x 25GbE (or 10GbE) Optic in nFHMc
- 19-inch rack mount, 1U

Easier Coverage Extension With O-RU, Keep It SOLiD.

SOLiD FHM fully enables the shared cell feature defined by the O-RAN Alliance. The shared cell feature reduces the aggregation burden on O-DU/cell resources while supporting multiple RUs and eliminates the need of expensive L2 switches.

SOLiD FHM uses the copy/combine feature to provide coverage expansion without inter-cell interference. FHM mitigates inter-cell interference without the complex multiple cell planning, which is effective for rapidly changing in-building area.



SOLiD O-RU/FHM TOPOLOGY OVERVIEW

O-RU/FHM Specifications

FHM General Specifications

Item	Specifications		Remarks
	FHM _c	nFHM _o	
Fronthaul Specification	O-RAN.WG4.CUS/MP.Specification.v6		
Synchronization Plane	PTP (Full Timing Support, ITU-T G.8275.1) with T-BC / SyncE receiver and transmitter		
Clock Topology	LLS-C1/C2/C3		
Dimension (W x H x D)	440 x 43.5 x 385 mm, 19-inch rack mount		
Optical Ports (Northbound)	L0: SFP+, 10GbE	L0: SFP+/SFP28, 10GbE/25GbE L1: SFP+/SFP28, 10GbE/25GbE	
Optical Ports (Southbound)	L1*: SFP+, 10GbE	R0-R13: SFP+/SFP28, 10GbE/25GbE	*To support daisy chain mode
Copper Ports (Southbound)	R0-R6: RJ-45, 2.5/5/10G Base-T Support PoE (802.3bt) Dedicated port for O-RU connection	None	

O-RU General Specifications

Item	Specifications		Remarks
	O-LRU (Low power, Indoor n78 Single-band)	O-MRU (Mid power, Outdoor n78+B1+B3 Tri-band)	
Fronthaul Specification	O-RAN.WG4.CUS/MP.Spec.v6.0, CAT-A		
Synchronization Plane	PTP (Full Timing Support, ITU-T G.8275.1) with T-BC and/or SyncE		
Frequency Band	3410–3800 MHz	n78: 3410–3800 MHz B1: DL 2110–2170 MHz, UL 1920–1980 MHz B3: DL 1805–1880 MHz, UL 1710–1785 MHz	
RAT	5G NR	4G LTE, 5G NR	
Carrier Bandwidth	Up to 100 MHz	Up to 100 MHz for n78 Up to 40 MHz for B1, B3	
Modulation (DL)	1024 QAM	1024 QAM	
Number of Carrier Per Band	2	2	
MIMO	4 x 4	4 x 4 for n78 / 2 x 2 for B1, B3	
RF Output Power	4 x 250 mW	8 x 5 W	
Interface Ports	L0: RJ-45, 10G Base-T, POE L1: SFP28, 10GbE/25GbE L2: SFP28, 10GbE/25GbE	L0: SFP+/SFP28, 10GbE/25GbE L1: SFP+/SFP28, 10GbE/25GbE	
Volume	3.4 L (220 x 220 x 70 mm)	< 12 L (360 x 360 x 95 mm)	
Weight	2.1 kg	< 12 kg	

Connect with SOLiD

SOLiD helps people stay connected and safe in a rapidly changing world through a portfolio of digital DAS and O-RAN products for various venues. SOLiD enables indoor and outdoor cellular and public-safety communications at some of the world's best-known and most challenging venues including leading hospitals; professional and college sports venues; government, university, Fortune corporate buildings, and campuses; international airports and metropolitan subways.

For more information or complete technical specifications, please visit our website or contact us via email or phone.
solideu.com



Unit 2, Weighbridge Row,
Cardiff Road
Reading RG1 8LX, UK

solideu.com
support.emea@solideu.com

