

Optus In Building
Coverage Approved
Components list
OM38973

Yes



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1 Introduction

This document summarizes those components that Optus will operationally support in the provision of In Building Coverage systems, also known as Distributed Antenna Systems (DAS).

The information provided within this document is intended to provide guidance to Industry for Optus approved products for DAS and should be referenced in conjunction with current MCF Design Guidelines, or its successors.

Optus approved DAS products are defined within 2 main categories:

- Passive DAS Components comprising -
 - Passive Antennas.
 - Passive devices – Splitters, couplers, coaxial cables etc.
- Active DAS Equipment categorised as follows –
 - **Optus Lead Carrier** - Supported DAS products integrated into the Optus Operations Support Systems (OSS) for operational monitoring purposes as a function of the Lead Carrier.
 - **Optus Non Lead Carrier** - Supported DAS products approved for Optus connection as a colocating Carrier only in that the OSS function is provided by an another party.
 - **Legacy Active DAS Products** – Active DAS products in the Optus Network which are currently maintained, however are not supported for new installations.

Equipment will be updated periodically based on the following criteria -

- DAS technology requirements, as reflected in the MCF Design Guidelines and the Optus specifications.
- Optus onboarding of new products.
- Offboarding of products no longer supported by Optus.
- DAS equipment or components superseded by the equipment manufacturer.

2 Approved Passive Components

The following passive components listed have been assessed, tested and approved by Optus to ensure suitability for the Optus Network that meets the required technical and quality standards.



Approved_Passive_Components_V23.xls

Note that pre terminated jumpers are approved up to a 10 Metre length.

2.1 Passive Component Approval Process

Optus allows the ability for request for new equipment/components to be considered for addition to the Optus Approved components list. A genuine business or market demand must be demonstrated for new products to be considered.

Requests for consideration should be documented and follow the 'Passive components test plan' V4 or as amended from time to time. This should be requested from (Mahmood.akache@optus.com.au) prior to any engagement. Response will be based on the business need for proposed items.

The following documentation is mandatory as part of any approval request;

- Product specification sheet
- Documentation demonstrating compliance to the test plan, from an approved testing facility.
- Documentation demonstrating that the associated antenna has been listed in the RFNSA antenna category 1 database if applicable.
- Demonstration of the product being added to the RFNSA National Antenna Database (NAD).

Optus, in its sole discretion, may evaluate products from time to time, and if compliant to the required standards, add items to the list and provide details to the Suppliers of those products. Optus does not require physical witness testing as part of this process.

3 Approved Active Components

3.1 Optus Lead Carrier

Below are a list of products within the market at the moment which have undergone and fulfilled Optus solution on-boarding requirements, integration testing and are able to be connected to operational support systems managed by Optus and provide telemetry back to the core network.

Optus is able to act as Lead Carrier for the products utilised below on the basis that Optus has the necessary commercial and operational agreements in place to be able to fulfil ongoing monitoring, repairs and maintenance from both a physical, logical and security standpoint. These have all been tested and meet all the technical requirements, both RF and operational.

Manufacturer	Solution	Description	Status
CommScope	ERA	High power, multi-band, multi-technology, multi-Operator optical RF distribution system supporting 700, 850, 900, 1800, 2100, 2300, 2600, 3500 MHz bands.	Current
Ericsson	Radio Dot System	The Ericsson Radio Dot System (RDS) is a high-performance Digital DAS solution. (not MCF compliant) Only the following RDS parts are approved for usage:	Current

Manufacturer	Solution	Description	Status
		<ul style="list-style-type: none"> • IRU 2242: RD 4442 B3+B7 or RD 4442 B1+B7 • IRU 8846: RD 4479 B78L • I-RU 1649: RDS 4475 B1+B3+B42 	
Nokia	ASiR System	<p>The Nokia AirScale indoor Radio (ASiR) system is a high-performance Digital DAS solution (not MCF compliant)</p> <p>The following units are approved for use</p> <p>AMIA, ASIR, ASIA, ABIL</p> <ul style="list-style-type: none"> • pRRH AHGEHA – LTE B1+B3+B7 • pRRH AWHQA -5G B42 • pRRH AWHQJ -5G B42 (ext antenna) 	Current

The embedded file lists those part numbers that are supported in the Optus environment. If the site design encompasses product outside these items, please consult with the Lead Carrier to ensure the item is supported to avoid unnecessary commercial impact to your project.



Approved Active Components V10.xls

3.2 Optus Non Lead Carrier

Following products are supported for Optus connection as collocating Carrier only –

Manufacturer	Solution	Description	Status
Mavenir	Crossfire	<p>Multi-band, multi-technology, multi-Operator optical RF distribution system supporting 700, 850, 900, 1800, 2100, 2300 ,2600 and 3500 MHz bands.</p> <p>Only N3RU, HPRU and X2RU modules have been approved for usage.</p>	Current

3.3 Legacy Active DAS Products

These items we have connected to in the past, but are not approved for new installation, Optus will no longer support new connections to these systems, as they do not meet contractual, regulatory obligations or are end of lifecycle.

Manufacturer	Model	Description	Status
CommScope	ION-M	High power, multi-band, multi-technology, multi-Operator optical RF distribution system supporting 700, 850, 900, 1800, 2100, 2300 and 2600 MHz bands.	Current
BTI (Bravotech) Now owned by Crossfire	mBSC-C	Multi-band, multi-technology, multi-Operator optical RF distribution system.	



Huawei	SingleDAS2 and 3	Medium power, multi-band, multi-technology, multi-Operator optical RF distribution system.
Zinwave ADC, now owned by CommScope	3000 Prism	Low power broadband. High power, multi-band, multi-technology, multi-Operator optical RF distribution system supporting 700, 850, 900, 1800, 2100, 2300 and 2600 MHz bands.
ADC, now owned by CommScope	Unison/Fusion	Low power up to 2 bands per remote
Commscope	ION-B	Low power, multi-band, multi-technology, multi-Operator optical RF distribution system supporting 900, 1800, 2100, MHz bands.
Sunwave	Crossfire	Multi-band, multi-technology, multi-Operator optical RF distribution system supporting 700, 850, 900, 1800, 2100, 2300 and 2600 MHz bands. Only HPRU modules have been approved for usage.

The products as listed above in clause 3.3 are for information only. If in doubt, please seek advice from Optus.

Approved By				
Authorisation	Person	Title	Date	Signature
Author	Mahmood Akache	Inbuilding Senior Technical Specialist	12/09/24	<i>Mahmood Akache</i>
Approver	Jim Hazelden	Associate Director IBC Solutions, Optus	4/10/2024	<i>Jim Hazelden</i>
Approver	Ben Meldrum	Senior Manager RAN Solutions & Architecture	4/10/2024	<i>Benjaeldrum</i>
Approver	Mahmood Akache	Inbuilding Senior Technical Specialist	4/10/2024	<i>Mahmood Akache</i>

4 Document Control

4.1 Authorisation

Implementation: Initial document release
Date: 18/06/2021

4.2 References

OM number	Version	Date	Title	Author
OM38971	8	06/12/2021	Optus approved Active components list	Douglas Ramsay
OM38972	16	06/12/2021	Optus approved Passive components list	Douglas Ramsay



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4.3 Amendment List

Version	Date	section	Nature of amendment	Author
OM38973 V25	4/10/2024		Update approved passive list	Mahmood Akache