

ECN/PCN No.: R0521

For Manufacturer

Product Description: 2.4GHz: Wi-Fi/BT External Antenna	Abrakon Part Number / Part Series: PRO-EX-296	☐ Documentation only ☒ ECN ☐ EOL	☐ Series ☐ Part Number ☐ Safety ☒ Non-Safety
Affected Revision: A	New Revision: B	Application:	

Prior to Change:

2.4GHz : Wi-Fi/BT External Antenna

PRO-EX-296

Request Samples

Check Inventory

Ø12 x 37 mm
 RoHS/RoHS II Compliant
 MSL Level = 1

Electrical Specification – Antenna

Parameter	Specification	Unit
Operating Frequency	2400 - 2500	MHz
Return Loss	< -11.2	dB
Polarization	Linear	-
Total Efficiency	> -1.1	dB
Peak Gain	3.0	dBi
Impedance	50	Ω

Note: Performance will vary depending on the ground plane, application, and environment.

Mechanical Specification

Parameter	Specification
Antenna Dimension	Ø12 x 37 mm
Mounting Type	Screw
Material(s)	PC and PBT
Cable Type	Ø1.13 mm coaxial
Cable Length	100 ±3 mm
Connector Type	MHF-1 (F) (e.g. U.FL, IPEX)

Environmental Specification

Parameter	Specification
Storage Temperature	-30°C to +70°C



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REVISED: 05-16-23

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After Change:

2.4GHz: Wi-Fi/BT External Antenna



PRO-EX-296

Request Samples

Check Inventory

Ø12 x 37 mm
RoHS RoHS II Compliant
MSL Level = 1

Electrical Specification – Antenna

Parameter	Specification	Unit
Operating Frequency	2400 - 2500	MHz
Return Loss	< -11.2	dB
Polarization	Linear	-
Total Efficiency	>=1.1	dB
Peak Gain	3.0	dBi
Impedance	50	Ω

Note: Performance will vary depending on the ground plane, application, and environment.

Mechanical Specification

Parameter	Specification
Antenna Dimension	Ø12 x 37 mm
Mounting Type	Screw
Material(s)	PC and PBT
Cable Type	Ø1.13 mm coaxial
Cable Length	100 ±3 mm
Connector Type	MHF-1 (F) (e.g. U.FL, IPEX)

Environmental Specification

Parameter	Specification
Operating Temperature	-20°C to +65°C
Storage Temperature	-30°C to +70°C
IP Rating	IP66
MSL Level	1
RoHS Complaint	Yes

Ordering Information

Part Number	Description	Connector Option
PRO-EX-296	2.4GHz: Wi-Fi/BT External Antenna with IP66, MHF-1 connector & 100 mm cable length	MHF-1 (F)
PRO-EX-296-1	2.4GHz: Wi-Fi/BT External Antenna with UV resistant, IP66, MHF-1 connector & 100 mm cable length	MHF-1 (F)



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REVISED: 07-22-26

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2.4GHz: Wi-Fi/BT External Antenna	
PRO-EX-296 Request Samples  Check Inventory 	012 x 37 mm RoHS/RoHS II Compliant MSL Level = 1
Packaging Individually bagged 50 units per large bag 1500 units per carton Carton size 43 x 34 x 19 cm, Gross weight 14Kg	
ATTENTION: ABRACON LLC's products are Commercial-Off-The-Shelf ("COTS"), which are designed, intended, and validated for use in commercial, industrial, and automotive applications. The customer is responsible for testing and verifying the performance of an ABRACON solution to meet their system-level requirements.	
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Cause/Reason for Change: Updated ordering information

Change Plan

Effective Date:

07/22/2026

Additional Remarks:

Change Declaration:

Issued Date:

07/22/2026

Issued By:

Allan

Issued Department:

Engineering

Approval:

Saravanan Subramanian

Engineering Director

Approval:

Reuben Quintanilla

Quality Director

Approval:

Ying Huang

Purchasing Director

For Abracon EOL only

Last Time Buy (if applicable):

Alternate Part Number / Part Series:

Additional Approval:

Additional Approval:

Additional Approval:

Customer Approval (If Applicable)

Qualification Status:

☐ Approved ☐ Not accepted

Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.

Customer Part Number:		Customer Project:	
Company Name:	Company Representative:	Representative Signature:	
Customer Remarks:			