chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna



AANI-FB-0154

Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

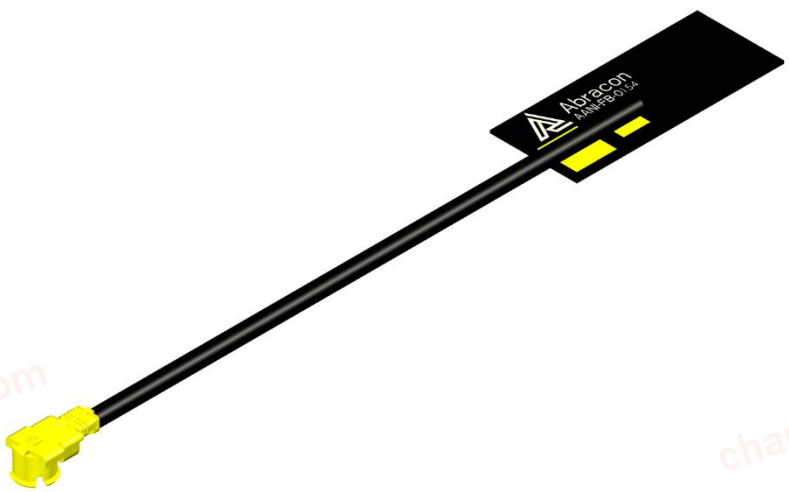
Features

- Frequency Range: 2400-2500 MHz
- Peak Gain: 3.2 dBi
- Efficiency: 68 %
- Ground Plane Independent
- Flexible to Fit Inside Plastic Enclosures
- Fully Customizable Cable Length and Connector Options
- RoHS Compliant

Applications

- Bluetooth®/ ZigBee® / Thread/ Matter/Wi-Fi®
- Bluetooth®/ Wi-Fi® Modules
- Hearables & Wearables
- Smart Home & Smart Building
- Smart Metering
- Intelligent Lighting

Product Image



ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS ISO9001-2015 CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna



AANI-FB-0154

Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Electrical Specification

Parameter	Specification	Unit
Operating Frequency	2400 – 2500	MHz
VSWR (Typ.)	< 2.2	:1
Peak Gain	3.2	dBi
Maximum Efficiency	68	%
Average Efficiency	64	%
Impedance	50	Ω
Polarization	Linear	-
Radiation Pattern (Azimuth)	Omni-directional	-
Maximum Input Power	5	W

Mechanical Specification

Parameter	Specification
Antenna Dimensions	15.5 x 6.5 x 0.2 mm
Antenna Type	Flexible PCB
Mounting Type	Adhesive Mount
RF Connector (1)	u.FL/IPEX-1/MHF1
RF Cable Type (1)	Ø1.13 mm
Cable Length (1)	93.5 mm

(1)**:** Fully customizable RF Cable & Connector

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
RoHS Complaint	Yes

ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS ISO9001-2015 CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna



AANI-FB-0154

Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Ordering Information

Part Number	Description	Connector Option
AANI-FB-0154-1	2.4GHz Bluetooth & Wi-Fi FPC Antenna with MHF1 connector and 93.5mm cable	u.FL/IPEX-1/MHF1
AANI-FB-0154-2	2.4GHz Bluetooth & Wi-Fi FPC Antenna with MHF4 connector and 93.5mm cable	w.FL/IPEX-4/MHF4
AANI-FB-0154-3	2.4GHz Bluetooth & Wi-Fi FPC Antenna with MHF1 connector and 150mm cable	u.FL/IPEX-1/MHF1
AANI-FB-0154-4	2.4GHz Bluetooth & Wi-Fi FPC Antenna with MHF4 connector and 150mm cable	w.FL/IPEX-4/MHF4
AANI-FB-0154-5	2.4GHz Bluetooth & Wi-Fi FPC Antenna with MHF1 connector and 200mm cable	u.FL/IPEX-1/MHF1
AANI-FB-0154-6	2.4GHz Bluetooth & Wi-Fi FPC Antenna with MHF4 connector and 200mm cable	w.FL/IPEX-4/MHF4

ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS ISO9001-2015 CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna

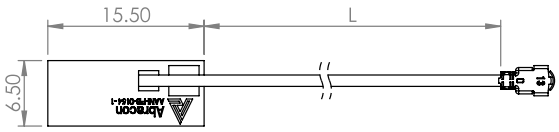


AANI-FB-0154

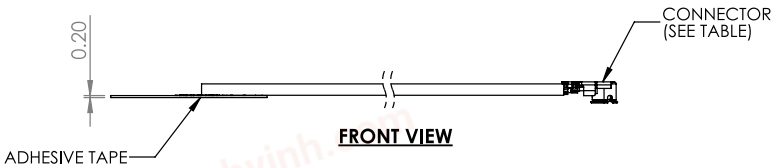
Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Product Dimensions

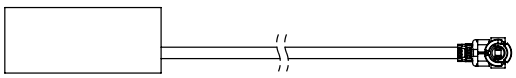


TOP VIEW



FRONT VIEW

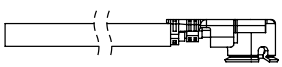




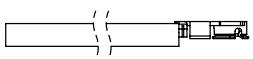
BOTTOM VIEW

PART NUMBER	CABLE LENGTH (L)	CONNECTOR
AANI-FB-0154-1	93.5	u.FL/IPEX-1/MHF1
AANI-FB-0154-2	93.5	w.FL/IPEX-4/MHF4
AANI-FB-0154-3	150	u.FL/IPEX-1/MHF1
AANI-FB-0154-4	150	w.FL/IPEX-4/MHF4
AANI-FB-0154-5	200	u.FL/IPEX-1/MHF1
AANI-FB-0154-6	200	w.FL/IPEX-4/MHF4

CONNECTOR



u.FL/IPEX-1/MHF1



w.FL/IPEX-4/MHF4

Unit : mm

ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS ISO9001-2015 CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna

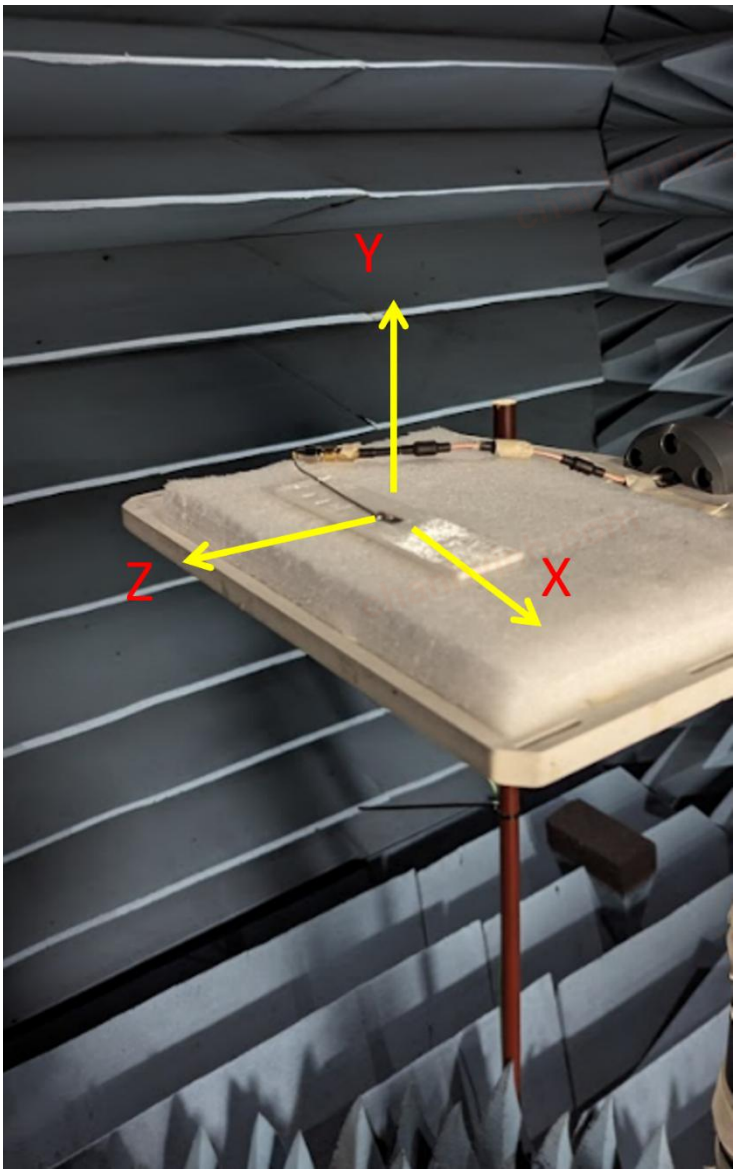


AANI-FB-0154

Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Measurement Setup photo



ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS ISO9001-2015 CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna

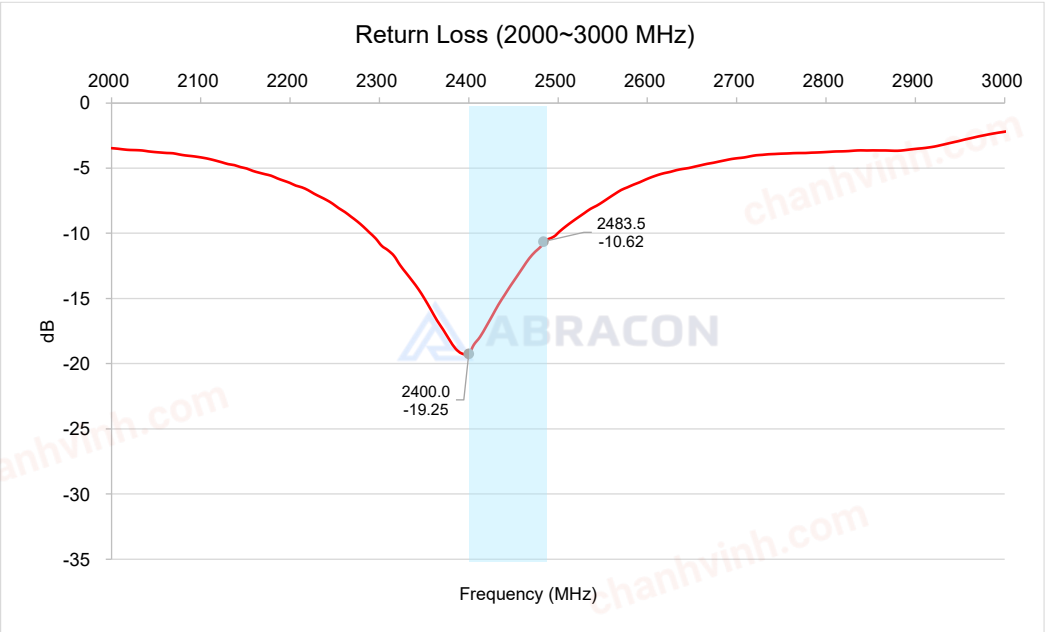


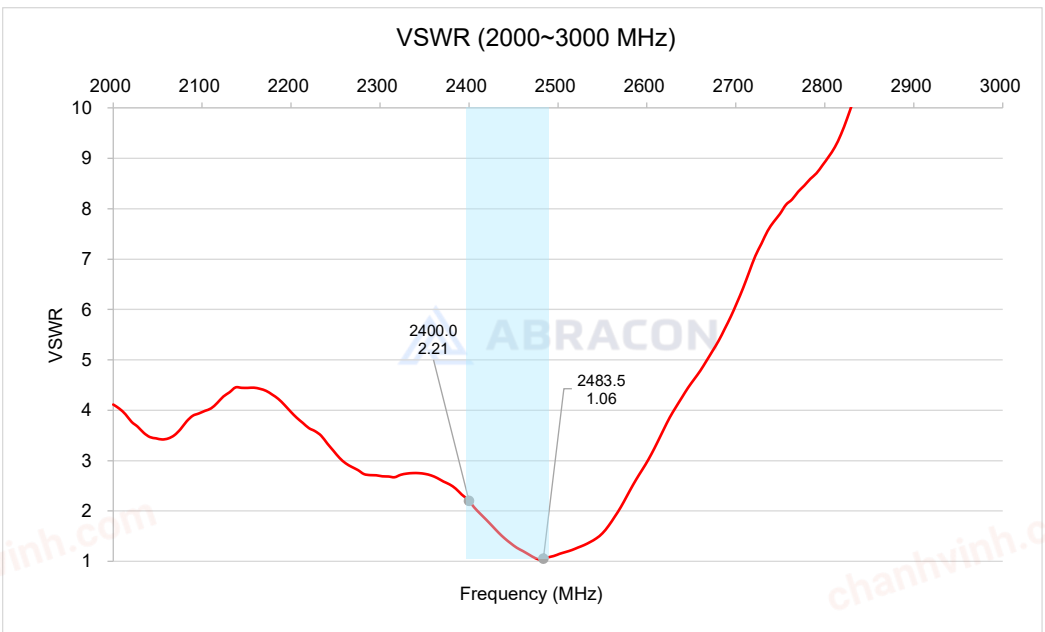
AANI-FB-0154

Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Reflection Characteristics – Return Loss & VSWR





ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS ISO9001-2015 CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna

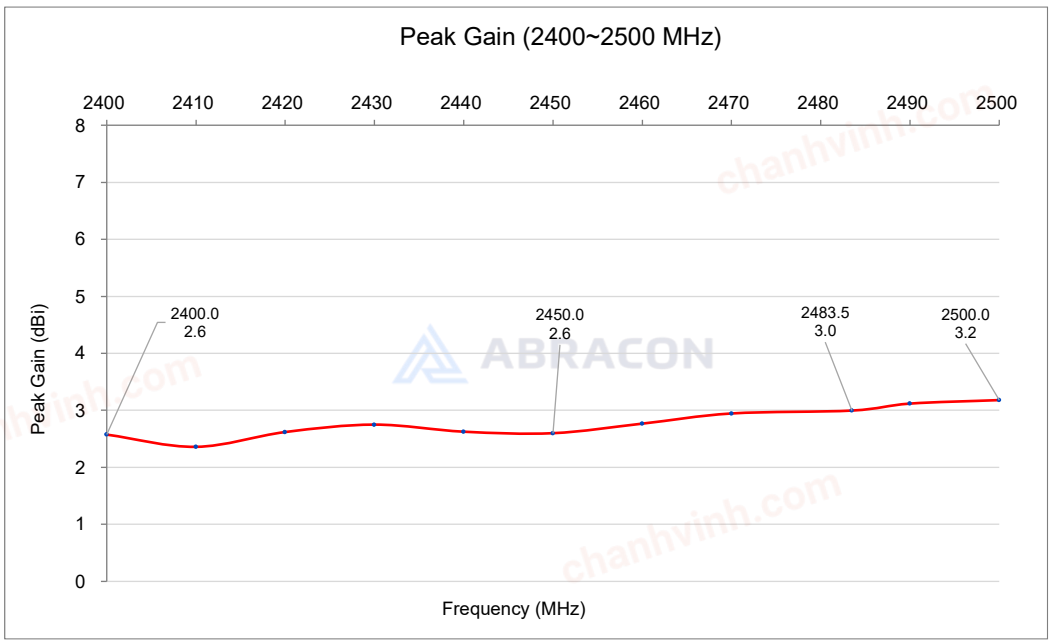


AANI-FB-0154

Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Radiation Characteristics – Peak Gain & Average Gain



ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS
ISO9001-2015
CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna

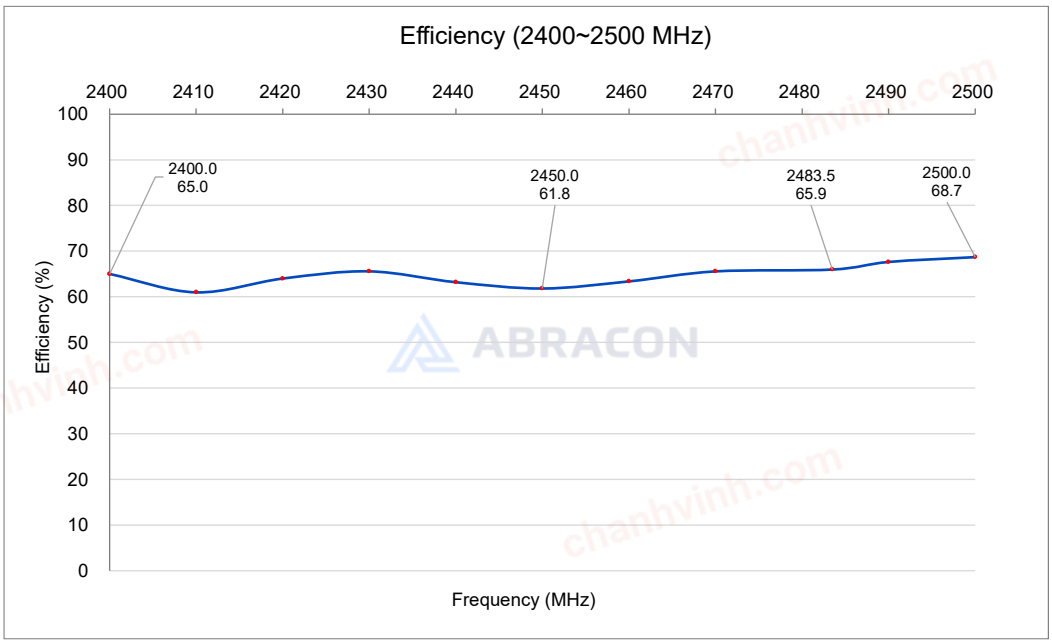


AANI-FB-0154

Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Radiation Characteristics – Total Efficiency (%)



ABRACON
5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS ISO9001-2015 CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna



AANI-FB-0154

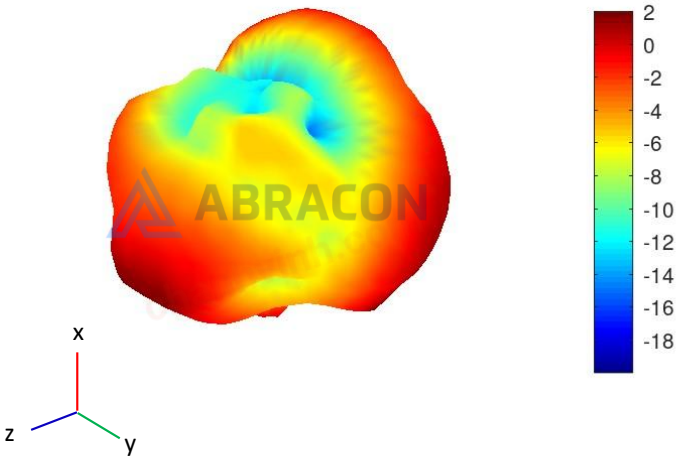
Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

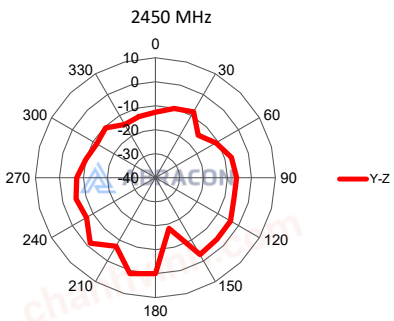
Radiation Characteristics – 3D & 2D pattern

2450MHz

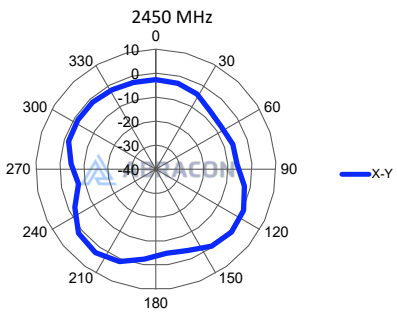




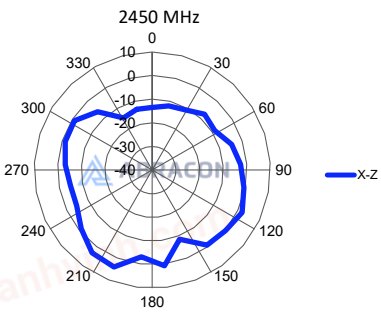
YZ plane



XY plane



XZ plane



ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS
ISO9001-2015
CERTIFIED

chanhvinh.com

2.4GHz Bluetooth & Wi-Fi FPC Antenna



AANI-FB-0154

Request Samples | Check Inventory

15.5 x 6.5 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Packaging

Number of Antenna/ bags: 100 pcs

Total Pcs / package: 1000 pcs

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.

ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 05-26-25

ABRACON IS
ISO9001-2015
CERTIFIED