

# SURFACE MOUNTABLE DIELECTRIC CHIP ANTENNAS AHD SERIES

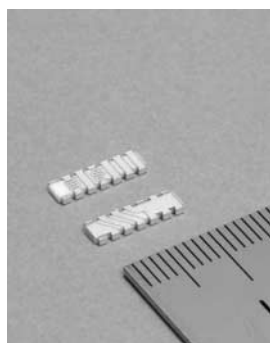
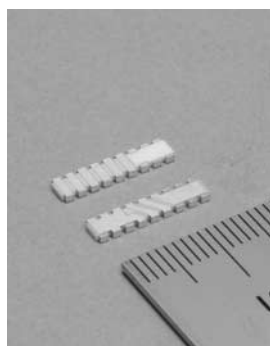
Surface mountable dielectric chip antennas AHD series is a result of harmonizing our long experience in ceramic material & process technologies for high frequency applications together with cutting-edge RF design technologies. It is very small with low profile, but has a wide range of frequency band. It is suitable for compact mobile equipment and communication modules.

## ■ Features

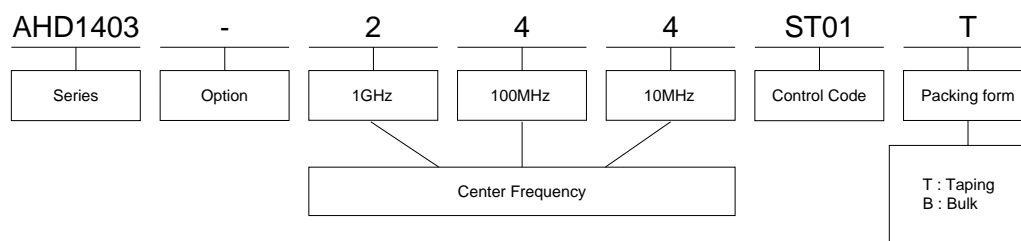
- Very small and thin, omni-directional antenna.
- Due to its compact size, suitable for equipment like cellular phone with a limited mounting space.
- Suitable for card shaped equipment due to its low profile.
- Wide frequency band allows a big margin to cover the required range even in case of center frequency shift with mounting condition and other environmental factors.

## ■ Applications

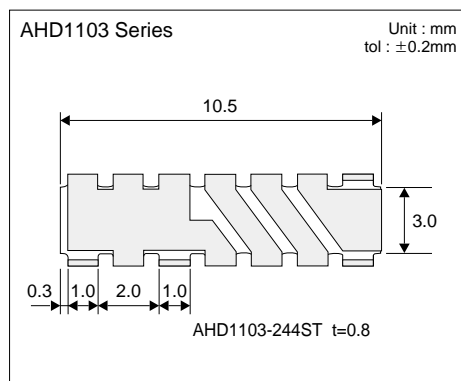
- Wireless LAN, Bluetooth™ etc.
- PHS, DECT
- GPS



## ■ Part number system



## ■ Dimensions



## ■ Part number list

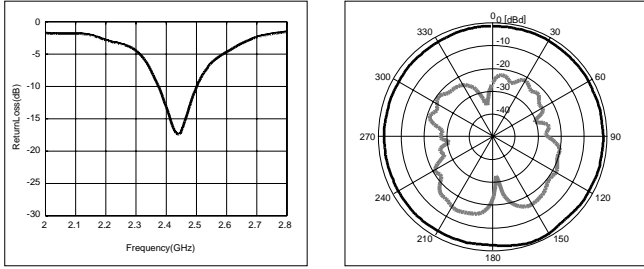
Part Number	Sizes	Operating Frequency Range	Polarization	Operating Temperature
<b>AHD1403-244ST01</b>	<b>13.5×3×0.8mm</b>	<b>2400~2484MHz</b>	<b>Linear</b>	<b>-25~+85°C</b>
AHD1403-191ST01	13.5×3×0.8mm	1880~1920MHz	Linear	-25~+85°C
AHD1403-158ST01	13.5×3×1.6mm	1565~1585MHz	Linear	-25~+85°C
<b>AHD1103-244ST01</b>	<b>10.5×3×0.8mm</b>	<b>2400~2484MHz</b>	<b>Linear</b>	<b>-25~+85°C</b>

## ■ Characteristics (Reference)

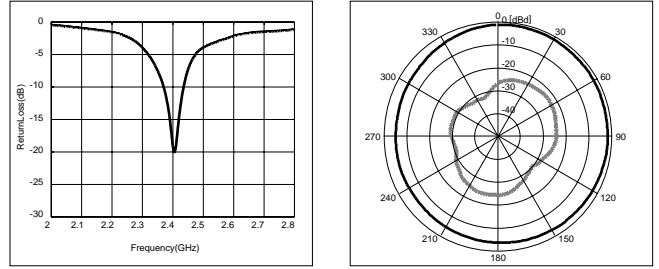
Part Number	Bandwidth in VSWR≤3	Peak Gain	Average Gain
<b>AHD1403-244ST01</b>	<b>230MHz</b>	<b>-0.5dBd</b>	<b>-3.8dBd</b>
AHD1403-191ST01	130MHz	-1.3dBd	-4.7dBd
AHD1403-158ST01	90MHz	-1.9dBd	-5.3dBd
<b>AHD1103-244ST01</b>	<b>200MHz</b>	<b>-1.0dBd</b>	<b>-4.8dBd</b>

# SURFACE MOUNTABLE DIELECTRIC CHIP ANTENNAS AHD SERIES

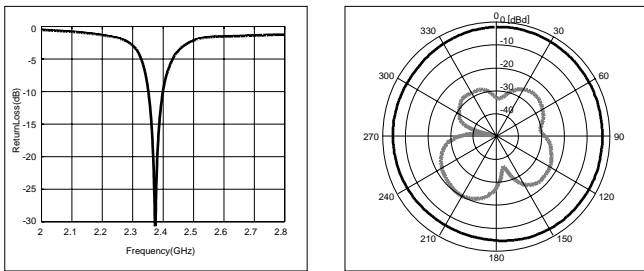
## Characteristics of AHD1403-244ST01



## Characteristics of AHD1403-191ST01

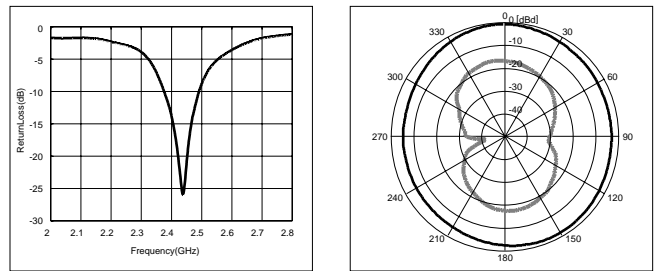


## Characteristics of AHD1403-158ST01



NEW

## Characteristics of AHD1103-244ST01



## Series of center Frequencies

In case of surface mount antennas, the center frequency is dependent on the PCB size or other surrounding components and materials, and therefore can be different from what is measured with our standard test board. For the AHD series, we have therefore prepared series of items having different center frequencies with a certain frequency step, in order to cancel the above mentioned frequency shift by the environmental factors. So with our AHD series, you can easily and quickly find the most suitable antenna for your own mounting conditions.

## Packing form

Unit : mm

Packing code	Related series	Packing Qty.	Packing form																																	
T	AHD1403 AHD1103 MZA1603	4,000		<table border="1"> <thead> <tr> <th>Code</th> <th>A</th> <th>B</th> <th>D</th> <th>E</th> <th>W<sub>1</sub></th> <th>W<sub>2</sub></th> <th>r</th> </tr> </thead> <tbody> <tr> <td>RRM08B</td> <td>∅330</td> <td>∅80</td> <td>∅21</td> <td>2.0</td> <td>24.2 +2 -0</td> <td>30.4<sub>≧</sub></td> <td>R1</td> </tr> </tbody> </table>	Code	A	B	D	E	W <sub>1</sub>	W <sub>2</sub>	r	RRM08B	∅330	∅80	∅21	2.0	24.2 +2 -0	30.4 <sub>≧</sub>	R1																
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CHIP ANTENNAS

# SURFACE MOUNTABLE DIELECTRIC CHIP ANTENNAS MZA 1603 SERIES

The MZA 1603 is targeted at applications in the frequency range of 300-500MHz. This antenna is designed by merging our ceramic and high frequency wireless circuitry technologies. High gain is realized with a ceramic chip antenna whose dimensions are only 16.0×3.0×1.5mm in a frequency range in which corresponding wave length is 600-1000mm.

## ■Features

- Compact, omni-directional antenna.
- By using an external impedance matching circuit, it is possible to optimize the antenna properties in the frequency spectrum of 300-500MHz.

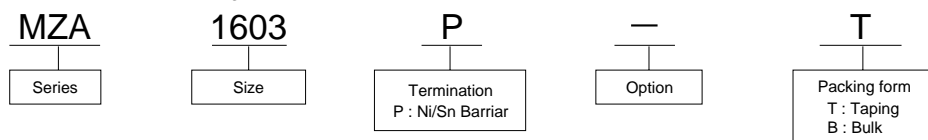
## ■Applications

Telemeter (Industrial & medical use), Telecontroller, Data communications, Keyless entry systems, Car security systems and Voice communication terminals.

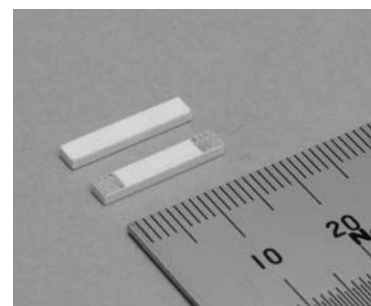
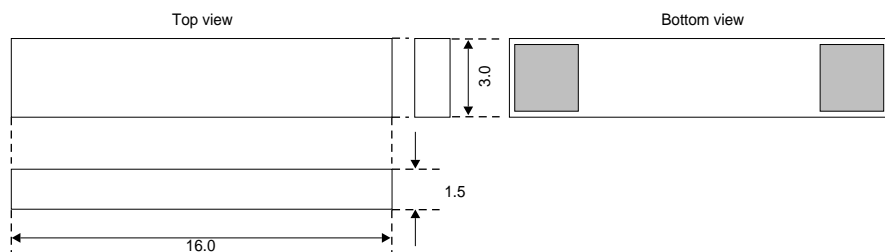
## ■Regulations

- TOKUSHO Regulations, BIJAKU Regulations (japan)
- FCC Part.15 (America)
- EN300 200-1 (Europe)

## ■Part number system



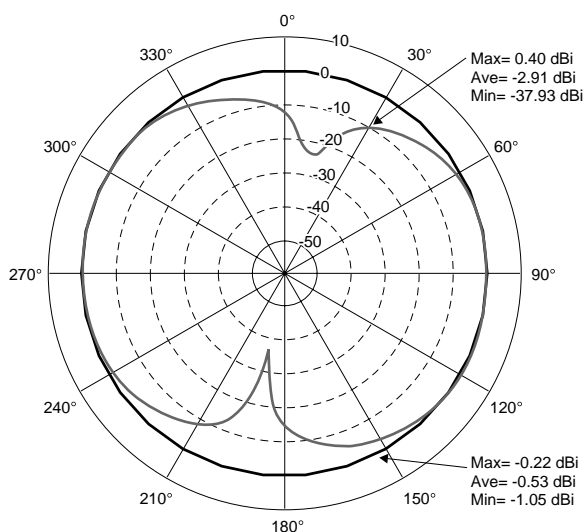
## ■Dimensions(mm)



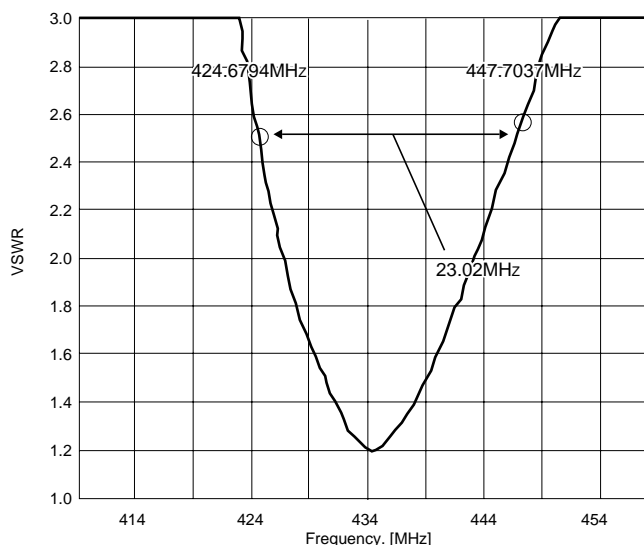
## ■Characteristics

Part number	Operating Frequency Range	Bandwidth in VSWR $\leq$ 2.5	VSWR at fc
MZA 1603	300~500MHz	more than 3%	less than 1.2

## ■Radiation Pattern of MZA1603



## ■VSWR Characteristic of MZA1603



DISC TYPE  
CERAMIC CAPACITOR