

Innovative Service Around the Globe

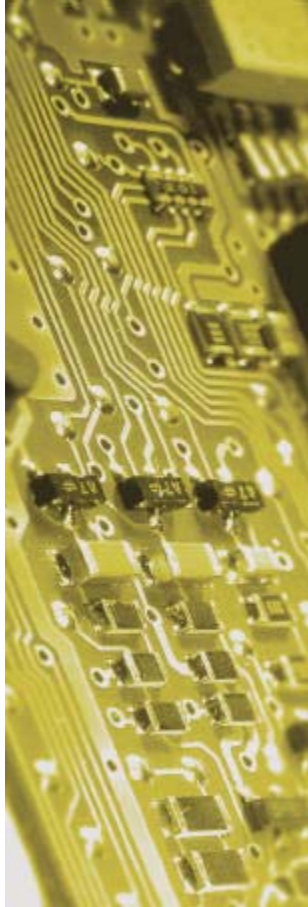
**YAGEO**

# SMD Resistors + MLCC High Frequency Products



[www.yageo.com](http://www.yageo.com)

**Phixcomp**





## Contents

### Ph<sup>i</sup>comp



#### MLCC

NPO Ceramic Chips Series

03

X5R Ceramic Chips Series

X7R Ceramic Chips Series

Y5V Ceramic Chips Series

04

Z5U Ceramic Chips Series

Arrays Series

Ultra Small MLCCs Series

05

EMI Filter Capacitors Series



Chip Resistors

06

Arrays

07

Network

08

Application Specific

09

Chip Resistors RF Attenuator

11



High Frequency Antenna

12

High Frequency Filter/Balun

19



## MLCC

**NPO Ceramic Chips Series**

GENERAL PURPOSE  
MEDIUM VOLTAGE  
HIGH VOLTAGE  
MICROWAVE

Surface Mount Chip



Size \_ 0402 to 1812

Capacitance Range \_ 0.47pF to 22nF

Capacitance Tolerance \_

C < 10pF :  $\pm 0.1\text{pF}$ ,  $\pm 0.25\text{pF}$ ,  $\pm 0.5\text{pF}$

C  $\geq 10\text{pF}$  :  $\pm 1\%$ ,  $\pm 2\%$ ,  $\pm 5\%$

Rated Working Voltage \_

16Vdc to 4000Vdc

Operating Temp. Range \_

-55°C to +125°C

Packaging \_ Reel / Bulkcase

**X5R Ceramic Chips Series**

HIGH CAPACITANCE

Surface Mount Chip



Size \_ 0402 to 1812

Capacitance Range \_ 56nF to 47 $\mu\text{F}$

Capacitance Tolerance \_  $\pm 10\%$ ,  $\pm 20\%$

Rated Working Voltage \_

6.3Vdc to 25Vdc

Operating Temp. Range \_

-55°C to +85°C

Packaging \_ Reel / Bulkcase

**X7R Ceramic Chips Series**

GENERAL PURPOSE  
MEDIUM VOLTAGE  
HIGH VOLTAGE  
LOW INDUCTANCE  
HIGH CAPACITANCE

Surface Mount Chip



Size \_ 0402 to 1812

Capacitance Range \_ 100pF to 4.7 $\mu\text{F}$

Capacitance Tolerance \_  $\pm 10\%$ ,  $\pm 20\%$

Rated Working Voltage \_

10Vdc to 2000Vdc

Operating Temp. Range \_

-55°C to +125°C

Packaging \_ Reel / Bulkcase



MLCC

### Y5V ceramic chips series

**GENERAL PURPOSE  
HIGH CAPACITANCE**

Surface Mount Chip



Size \_ 0402 to 1210  
 Capacitance Range \_ 10nF to 22uF  
 Capacitance Tolerance \_  
 ±20%, -20% to +80%

**Rated Working Voltage** \_  
 6.3Vdc, 50Vdc  
**Operating Temp. Range** \_  
 -25°C to +85°C  
**Packaging** \_ Reel / Bulkcase

### Z5U ceramic chips series

**GENERAL PURPOSE**  
 Surface Mount Chip



Size \_ 0603 to 1210  
 Capacitance Range \_ 10nF to 470nF  
 Capacitance Tolerance \_  
 ±20%, -20% to +80%

**Rated Working Voltage** \_  
 25Vdc, 50Vdc  
**Operating Temp. Range** \_  
 +10°C to +85°C  
**Packaging** \_ Reel / Bulkcase

### Arrays series

**NPO, X7R, Y5V CERMIC CHIPS  
 MULTI-VALUE CAPACITORS ARRAY**  
 Surface Mount Chip



Size \_ 0508, 0612  
 Capacitance Range \_ 10pF to 100nF  
 Capacitance Tolerance \_  
 NPO: ±5%, ±10%  
 X7R: ±10%, ±20%  
 Y5V: -20% to +80%

**Rated Working Voltage** \_  
 16Vdc to 50Vdc  
**Packaging** \_ Reel



## MLCC

**Ultra small MLCCs series****NPO, X5R, X7R, Y5V CERAMIC CHIPS**

Surface Mount Chip



Size \_ 0201

Capacitance Range \_ 1pF to 100nF

Capacitance Tolerance \_

NPO:  $\pm 2\%$ ,  $\pm 5\%$ X5R/X7R:  $\pm 10\%$ ,  $\pm 20\%$ Y5V:  $-20\%$  to  $+80\%$ 

Rated Working Voltage \_

6.3Vdc to 50Vdc

Packaging \_ Reel

**EMI filter capacitors series****X2Y SERIES**

Surface Mount Chip



Size \_ 0603 to 1206

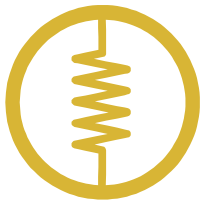
Capacitance Range \_ 4.7nF to 820nF

Capacitance Tolerance \_  $\pm 20\%$ 

Rated Working Voltage \_

10Vdc to 100Vdc

Packaging \_ Reel



## Chip Resistors

### General Purpose

#### THICK FILM CHIP

Glass Passivated Surface Mount



**Resistance Range (E24+E96)** \_

1 $\Omega$  to 22M $\Omega$ /Jumper

**Rated Power @ 70°C** \_ 1/20 to 1W

**Temp. Coefficient** \_

$\pm 100, \pm 200$ ppm/ $^{\circ}$ C

**Resistance Tolerance** \_  $\pm 1\%, \pm 5\%$

**Max. Working Voltage** \_

25Vdc to 200Vdc

**Max. Overload Voltage** \_

50Vdc to 400Vdc

**Case Sizes** \_ 0201 to 2512

### Low Ohmic Series

#### THICK FILM CHIP

Glass Passivated Surface Mount



**Resistance Range (E24)** \_

0.01 $\Omega$  to 0.99 $\Omega$

**Rated Power @ 70°C** \_ 1/10 to 1W

**Temp. Coefficient** \_

$\pm 100$  to  $\pm 1500$ ppm/ $^{\circ}$ C

**Resistance Tolerance** \_  $\pm 1\%, \pm 5\%$

**Case Sizes** \_ 0402 to 2512

Low Values for Current  
Sensing Applications

### Current Sensing Series

VERY LOW OHMIC



**Resistance Range (E24+E96)** \_

0.001 $\Omega$  to 0.005 $\Omega$

**Rated Power @ 70°C** \_ 1W

**Temp. Coefficient** \_

$\pm 100, \pm 200$ ppm/ $^{\circ}$ C

**Resistance Tolerance** \_

$\pm 1\%, \pm 5\%$

**Case Sizes** \_ 2512

Low Values for Current  
Sensing Applications



## Chip Resistors

## High precision High stability Series

## THIN FILM CHIP

Surface Mount



Resistance Range (E24+E96) \_  
 $1\Omega$  to  $1.5M\Omega$   
 Rated Power @  $70^\circ\text{C}$  \_  $1/16$  to  $1/4\text{W}$   
 Temp. Coefficient \_  
 $\pm 10$  to  $\pm 50\text{ppm}/^\circ\text{C}$   
 Resistance Tolerance \_  
 $\pm 0.1\%$ ,  $\pm 0.25\%$ ,  $\pm 0.5\%$ ,  $\pm 1\%$

Max. Working Voltage \_  
 $50\text{Vdc}$   
 Max. Overload Voltage \_  
 $100\text{Vdc}$   
 Case Sizes \_ 0402 to 1210

## Arrays

## 0402 \* 2 Series

## 0402 \* 4 Series

## THICK FILM ARRAY

Convex 0404/0408 Surface Mount



Resistance Range (E24+E96) \_  
 $10\Omega$  to  $1M\Omega$ /Jumper  
 Number of Resistors \_ 2 and 4  
 Rated Power Per Element \_  $1/16\text{W}$   
 Temp. Coefficient \_  $\pm 200\text{ppm}/^\circ\text{C}$

Resistance Tolerance \_  
 $\pm 1\%$ ,  $\pm 5\%$   
 Max. Working Voltage \_  
 $50\text{Vdc}$   
 Max. Overload Voltage \_  
 $100\text{Vdc}$   
 Circuit Types \_ Isolated

## 0603 \* 4 Series

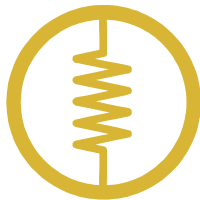
## THICK FILM ARRAY

Convex 0612 Surface Mount



Resistance Range (E24+E96) \_  
 $10\Omega$  to  $1M\Omega$ /Jumper  
 Number of Resistors \_ 4  
 Rated Power Per Element \_  $1/16\text{W}$   
 Temp. Coefficient \_  $\pm 200\text{ppm}/^\circ\text{C}$

Resistance Tolerance \_  
 $\pm 1\%$ ,  $\pm 5\%$   
 Max. Working Voltage \_  
 $50\text{Vdc}$   
 Max. Overload Voltage \_  
 $100\text{Vdc}$   
 Circuit Types \_ Isolated



## Arrays

### 0603 \* 4 Series

**THICK FILM ARRAY**  
Concave 0612 Surface Mount



**Resistance Range (E24+E96)** \_  
10Ω to 1MΩ/Jumper  
**Number of Resistors** \_ 4  
**Rated Power Per Element** \_  $1/16$ W  
**Temp. Coefficient** \_  $\pm 200$ ppm/°C

**Resistance Tolerance** \_  
 $\pm 1\%$ ,  $\pm 5\%$   
**Max. Working Voltage** \_  
50Vdc  
**Max. Overload Voltage** \_  
100Vdc  
**Circuit Types** \_ Isolated

### 0402 \* 8 Series

**THICK FILM ARRAY**  
Convex 0616 Surface Mount



**Resistance Range (E24+E96)** \_  
10Ω to 1MΩ/Jumper  
**Number of Resistors** \_ 8  
**Rated Power Per Element** \_  $1/32$ W  
**Temp. Coefficient** \_  $\pm 200$ ppm/°C

**Resistance Tolerance** \_  
 $\pm 1\%$ ,  $\pm 5\%$   
**Max. Working Voltage** \_  
50Vdc  
**Max. Overload Voltage** \_  
100Vdc  
**Circuit Types** \_ Isolated

## Network

### 10P8R Series

**THICK FILM ARRAY**  
Convex 0612 Surface Mount



**Resistance Range (E24)** \_  
10Ω to 100KΩ  
**Number of Resistors** \_ 8  
**Rated Power Per Element** \_  $1/32$ W  
**Temp. Coefficient** \_  $\pm 200$ ppm/°C

**Resistance Tolerance** \_  
 $\pm 5\%$   
**Max. Working Voltage** \_  
25Vdc  
**Max. Overload Voltage** \_  
50Vdc  
**Circuit Types** \_ Dual Common





## Application Specific

**Au-termination Series****THICK FILM CHIP**

Glass Passivated Surface Mount



**Resistance Range (E24+E96)** \_  
10 $\Omega$  to 10M $\Omega$ /Jumper  
**Rated Power @ 70°C** \_ 1/10 to 1/4 W  
**Temp. Coefficient** \_  
 $\pm 100$  to  $-100/+500$ ppm/ $^{\circ}$ C  
**Resistance Tolerance** \_  $\pm 1\%$ ,  $\pm 5\%$

**Max. Working Voltage** \_  
50Vdc to 200Vdc  
**Max. Overload Voltage** \_  
50Vdc to 400Vdc  
**Case Sizes** \_ 0603, 1206

**High Voltage Series****THICK FILM CHIP**

Glass Passivated Surface Mount



**Resistance Range (E24+E96)** \_  
100k $\Omega$  to 27M $\Omega$   
**Rated Power @ 70°C** \_ 1/8 to 1W  
**Temp. Coefficient** \_  
 $\pm 200$ ,  $\pm 300$ ppm/ $^{\circ}$ C  
**Resistance Tolerance** \_  $\pm 1\%$ ,  $\pm 5\%$

**Max. Working Voltage** \_  
250Vdc to 400Vdc  
**Max. Overload Voltage** \_  
300Vdc to 2500Vdc  
**Case Sizes** \_  
0805, 1206, 2512

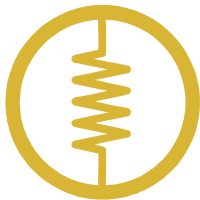
**Trimmable Series****THICK FILM CHIP**

Glass Passivated Surface Mount



**Resistance Range (E24+E96)** \_  
1 $\Omega$  to 10M $\Omega$   
**Rated Power @ 70°C** \_ 1/10 to 1/4 W  
**Temp. Coefficient** \_  
 $\pm 100$ ,  $\pm 200$ ppm/ $^{\circ}$ C  
**Resistance Tolerance** \_  
0/-20%, 0/-30%

**Case Sizes** \_ 0603 to 1206



### Application Specific

#### Fusible Series

##### THICK FILM CHIP

Glass Passivated Surface Mount



**Resistance Range (E24)** \_

1 $\Omega$  to 510 $\Omega$

**Rated Power @ 70°C** \_ 1/4 W

**Temp. Coefficient** \_  
 $\pm 200$  to  $\pm 250$ ppm/ $^{\circ}$ C

**Resistance Tolerance** \_

$\pm 5\%$

**Case Sizes** \_ 0603, 1206

Low Values for Current  
Sensing Applications

#### Surge Series

##### THICK FILM CHIP

Glass Passivated Surface Mount



**Resistance Range (E24)** \_

1 $\Omega$  to 100k $\Omega$

**Rated Power @ 70°C** \_ 1/4 W

**Temp. Coefficient** \_  $\pm 200$ ppm/ $^{\circ}$ C

**Resistance Tolerance** \_ 5%

**Max. Working Voltage** \_

200Vdc

**Max. Overload Voltage** \_

400Vdc

**Case Sizes** \_ 1206



## Chip Resistors RF Attenuator

### ATV321 Series

#### Attenuator

Glass Passivated Surface Mount



**Case Size** \_ 0404

**Attenuation Range** \_ 1 dB to 20 dB

**Attenuation Tolerance** \_

1 to 5dB :  $\pm 0.3$  dB/  $\pm 0.2$  dB

6 to 10dB :  $\pm 0.5$  dB/  $\pm 0.3$  dB

15dB :  $\pm 1$  dB/  $\pm 0.5$  dB

20dB :  $\pm 2$  dB/  $\pm 1.0$  dB

**Frequency Range** \_

1 to 10 dB : DC to 2.5 GHz

15 and 20 dB : DC to 2.0 GHz

**Max. Permissible Voltage** \_  
50V

**Power Rating** \_ 40 mW

**Temp. Range** \_ -55 to 125 °C

**Packing** \_ Tape



## High Frequency Antenna

### UHF-Antenna

CERAMIC

**Size (mm)** \_ 3.75 x 6.8 x 0.9

**\*Frequency Range** \_ 421 to 445 MHz

**Bandwidth** \_ > 20 MHz

**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional

**\*VSWR** \_ < 2.0

**Temp. Range** \_ -55 to 125°C

**Packing** \_ Bulk, Tape



**\*Depends On The YAGEO Demoboard**

### TDMA Antenna

CERAMIC

**Size (mm)** \_ 16.5 x 14 x 0.9

**\*Frequency Range** \_ 850 to 950 MHz

**Bandwidth** \_ 100 MHz

**\*Gain (Max.)** \_ 1.5 dBi

**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional

**\*VSWR** \_ < 2.0

**Temp. Range** \_ -55 to 125°C

**Packing** \_ Bulk, Tape



**\*Depends On The YAGEO Demoboard**

### Dualband Antenna

(900/1800 MHz) Metal

**Size (mm)** \_ 24 x 10 x 6

**\*Frequency Range** \_  
800 to 960 MHz, 1710 to 1880 MHz

**Bandwidth** \_ 80 MHz, 170 MHz

**\*Gain (Max.)** \_ 0 to 0.5 dBi, 0.5 to 1 dBi

**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional

**\*VSWR** \_ < 4.0

**Temp. Range** \_ -55 to 125°C

**Packing** \_ Bulk



**\*Depends On The YAGEO Demoboard**



## High Frequency Antenna

### Dualband Antenna

(900/1800/ MHz) CERAMIC



**Size (mm)** \_ 21 x 12 x 0.9

**\*Frequency Range** \_

880 to 960 MHz, 1710 to 1880 MHz

**Bandwidth** \_ 80 MHz, 170 MHz

**\*Gain (Max.)** \_ 0 to 0.5 dBi, 0.5 to 1 dBi

**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional

**\*VSWR** \_ < 2.7

**Temp. Range** \_ -55 to 125°C

**Packing** \_ Bulk, Tape

**\*Depends On The YAGEO Demoboard**

### Tripleband Antenna

(900/1800/1900 MHz) PCB VERTICAL



**Size (mm)** \_ 30 x 9.4 x 0.8

**\*Frequency Range** \_

800 to 960 MHz, 1710 to 1880 MHz

**Bandwidth** \_ 80 MHz, 280 MHz

**\*Gain (Max.)** \_ 0 to 0.5 dBi, 0.5 to 1 dBi

**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional

**\*VSWR** \_ < 2.5

**Temp. Range** \_ -55 to 125°C

**Packing** \_ Bulk

**\*Depends On The YAGEO Demoboard**

### GPS Antenna

(LP Mode)

(1.575 GHz)



**Size (mm)** \_ 12.5 x 6.6 x 0.9

**\*Frequency Range** \_ 1.58 GHz

**Bandwidth** \_ 100 MHz

**\*Gain (Max.)** \_ 1.5 dBi

**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional

**\*VSWR** \_ < 2.0

**Temp. Range** \_ -55 to 125°C

**Packing** \_ Bulk

**\*Depends On The YAGEO Demoboard**

For order codes, please check the CD-Rom or visit [www.yageo.com](http://www.yageo.com)



### High Frequency Antenna

#### DECT / WCDMA ANTENNA

**Size (mm)** \_ 8.8 x 6.8 x 0.9  
**\*Frequency Range** \_ 1.88 to 2.1 GHz  
**Bandwidth** \_ 100 MHz  
**\*Gain (Max.)** \_ 2 dBi  
**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional  
**\*VSWR** \_ < 2.0  
**Temp. Range** \_ -55 to 125°C  
**Packing** \_ Tape



**\*Depends On The YAGEO Demoboard**

#### Bluetooth Antenna LONG SHAPE

**Size (mm)** \_ 7.8 x 3.6 x 0.9  
**\*Frequency Range** \_ 2.45 GHz  
**Bandwidth** \_ >100 MHz  
**\*Gain (Max.)** \_ 4.1 dBi  
**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional  
**\*VSWR** \_ < 2.0  
**Temp. Range** \_ -55 to 125°C  
**Packing** \_ Tape



**\*Depends On The YAGEO Demoboard**

#### Bluetooth Antenna LONG SHAPE

**Size (mm)** \_ 7.8 x 3.6 x 0.9  
**\*Frequency Range** \_ 2.60 GHz  
**Bandwidth** \_ >100 MHz  
**\*Gain (Max.)** \_ 4.1 dBi  
**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional  
**\*VSWR** \_ < 2.0  
**Temp. Range** \_ -55 to 125°C  
**Packing** \_ Tape



**\*Depends On The YAGEO Demoboard**



## High Frequency Antenna

**Bluetooth Antenna**

LONG SHAPE



Size (mm) \_ 7.8 x 3.6 x 0.9  
 \*Frequency Range \_ 2.70 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 4.1 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 125°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard

**Bluetooth Antenna**

Size (mm) \_ 7.3 x 5.5 x 1.3  
 \*Frequency Range \_ 2.45 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 1.2 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 125°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard

**Bluetooth Antenna**

Size (mm) \_ 7.3 x 5.5 x 1.3  
 \*Frequency Range \_ 2.60 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 1.2 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 125°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard

For order codes, please check the CD-Rom or visit [www.yageo.com](http://www.yageo.com)



### High Frequency Antenna

#### Bluetooth Antenna



Size (mm) \_ 7.3 x 5.5 x 1.3  
 \*Frequency Range \_ 2.70 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 1.2 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 125°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard

#### Bluetooth Antenna



Size (mm) \_ 7.3 x 5.5 x 1.3  
 \*Frequency Range \_ 2.80 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 1.2 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 125°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard

#### Bluetooth Antenna



Size (mm) \_ 5.3 x 2.0 x 1.3  
 \*Frequency Range \_ 2.10 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 4.0 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 85°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard





## High Frequency Antenna

### Bluetooth Antenna



**Size (mm)** \_ 5.3 x 2.0 x 1.3  
**\*Frequency Range** \_ 2.45 GHz  
**Bandwidth** \_ >100 MHz  
**\*Gain (Max.)** \_ 4.0 dBi  
**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional  
**\*VSWR** \_ < 2.0  
**Temp. Range** \_ -55 to 85°C  
**Packing** \_ Tape

\*Depends On The YAGEO Demoboard

### Bluetooth Antenna



**Size (mm)** \_ 5.3 x 2.0 x 1.3  
**\*Frequency Range** \_ 2.50 GHz  
**Bandwidth** \_ >100 MHz  
**\*Gain (Max.)** \_ 4.0 dBi  
**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional  
**\*VSWR** \_ < 2.0  
**Temp. Range** \_ -55 to 85°C  
**Packing** \_ Tape

\*Depends On The YAGEO Demoboard

### IEEE 802.11b & 11a Dual Band

(2.45/5.2 GHz)



**Size (mm)** \_ 8.7 x 8.0 x 0.9  
**\*Frequency Range** \_ 2.45 / 5.20 GHz  
**Bandwidth** \_ >100 MHz  
**\*Gain (Max.)** \_ 3.5 dBi / 1.5 dBi  
**Polarization** \_ Linear

**Azimuth** \_ Omni-Directional  
**\*VSWR** \_ < 2.5  
**Temp. Range** \_ -55 to 85°C  
**Packing** \_ Tape

\*Depends On The YAGEO Demoboard



## High Frequency Antenna

**Bluetooth Antenna**

Size (mm) \_ 5.3 x 2.0 x 1.3  
 \*Frequency Range \_ 2.20 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 4.0 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 85°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard

**Bluetooth Antenna**

Size (mm) \_ 5.3 x 2.0 x 1.3  
 \*Frequency Range \_ 2.30 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 4.0 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 85°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard

**Bluetooth Antenna**

Size (mm) \_ 5.3 x 2.0 x 1.3  
 \*Frequency Range \_ 2.40 GHz  
 Bandwidth \_ >100 MHz  
 \*Gain (Max.) \_ 4.0 dBi  
 Polarization \_ Linear

Azimuth \_ Omni-Directional  
 \*VSWR \_ < 2.0  
 Temp. Range \_ -55 to 85°C  
 Packing \_ Tape

\*Depends On The YAGEO Demoboard



## High Frequency Antenna

**Tripleband Antenna**

(900/1800/1900 MHz)

WITH CABLE &amp; CONNECTOR

**Size (mm)** \_ 35 x 6.0 x 0.4**\*Frequency Range** \_

880 to 960 MHz, 1710 to 1880 MHz

**Bandwidth** \_ 80 MHz, 170 MHz**\*Gain (Max.)** \_ 0 to 0.5 dBi, 0.5 to 1 dBi**Polarization** \_ Linear**Azimuth** \_ Omni-Directional**\*VSWR** \_ < 2.0**Temp. Range** \_ -55 to 125°C**Packing** \_ Bulk, Tape

## High Frequency Filter / Balun

**LOSS PASS FILTER****Size (mm)** \_ 1.6 x 0.8 x 0.65**Frequency Range** \_ 2.45 GHz**Pass Band** \_ 2400 to 2500 MHz**Impedance** \_ 50 Ω**Insertion Loss (Max.)** \_ 0.45 dB**\*Depends On The YAGEO Demoboard****Ripple (Max.)** \_ 0.6 dB**VSWR** \_ 1.5**Attenuation** \_

25 dB Min@5000 MHz

18 dB Min@7500 MHz

**Packing** \_ Tape**LOSS PASS FILTER****Size (mm)** \_ 2.0 x 1.25 x 0.85**Frequency Range** \_ 2.45 GHz**Pass Band** \_ 2400 to 2500 MHz**Impedance** \_ 50 Ω**Insertion Loss (Max.)** \_ 0.5 dB**Ripple (Max.)** \_ 0.6 dB**VSWR** \_ 1.8**Attenuation** \_

27 dB Min@5000 MHz

25 dB Min@7500 MHz

25 dB Min@10,000 MHz

**Packing** \_ Tape



High Frequency Filter / Balun

**BAND PASS FILTER**



**Size (mm)** \_ 2.5 x 2.0 x 0.95  
**Frequency Range** \_ 2.45 GHz  
**Pass Band** \_ 2400 to 2500 MHz  
**Impedance** \_ 50  $\Omega$   
**Insertion Loss (Max.)** \_ 1.5 dB  
**Ripple (Max.)** \_ 0.6 dB

**VSWR** \_ 2.0  
**Attenuation** \_  
 40 dB Min@880-960 MHz  
 30 dB Min@1710-1785 MHz  
 30 dB Min@1850-1910 MHz  
 20 dB Min@4800-5000 MHz  
 30 dB Min@7200-7500 MHz  
**Packing** \_ Tape

**BAND PASS FILTER**



**Size (mm)** \_ 2.0 x 1.25 x 0.85  
**Frequency Range** \_ 2.45 GHz  
**Pass Band** \_ 2400 to 2500 MHz  
**Impedance** \_ 50  $\Omega$   
**Insertion Loss (Max.)** \_ 2.0 dB  
**Ripple (Max.)** \_ 0.6 dB

**VSWR** \_ 2.0  
**Attenuation** \_  
 -40 dB Min@1.0-1.6 GHz  
 10 dB Min@2.0 GHz  
 40 dB Min@4.9 GHz  
 20 dB Min@7.5 GHz  
**Packing** \_ Tape

**BAND PASS FILTER**



**Size (mm)** \_ 2.5 x 2.0 x 1.1  
**Frequency Range** \_ 2.45 GHz  
**Pass Band** \_ 2400 to 2500 MHz  
**Impedance** \_ 50  $\Omega$   
**Insertion Loss (Max.)** \_ 1.5 dB  
**Ripple (Max.)** \_ 0.6 dB

**VSWR** \_ 2.0  
**Attenuation** \_  
 40 dB Min@880-960 MHz  
 30 dB Min@1710-1785 MHz  
 20dB@1850-1910 MHz  
 30dB@4800-5000 MHz  
 20 dB Min@7200-7500 MHz  
**Packing** \_ Tape



## High Frequency Filter / Balun

**BAND PASS FILTER**

**Size (mm)** \_ 2.0 x 1.2 x 1.0  
**Frequency Range** \_ 5.0 GHz  
**Pass Band** \_ 4900 to 5950 MHz  
**Impedance** \_ 50  $\Omega$   
**Insertion Loss (Max.)** \_ 1.5 dB

**Ripple (Max.)** \_ 0.6 dB  
**VSWR** \_ 2.0  
**Attenuation** \_  
 30 dB Min@1280-3000 MHz  
 25 dB Min@3300-4000 MHz  
 25 dB Min@9800-11,900 MHz  
**Packing** \_ Tape

**BPF & BALUN COMBO**

**Size (mm)** \_ 2.5 x 2.0 x 1.2  
**Frequency Range** \_ 2.40 GHz  
**Pass Band** \_ 2400 to 2500 MHz  
**Impedance** \_ 50/100  $\Omega$   
**Insertion Loss (Max.)** \_ 2.0 dB  
**Ripple (Max.)** \_ 0.5 dB  
**Amplitude Balance (Max.)** \_ 10 dB

**Phase Differential** \_  
 180 $\pm$ 8 degree  
**Attenuation** \_  
 35 dB Min@880-960 MHz  
 22 dB Min@1710-1910 MHz  
 20 dB Min@5000 MHz  
 30 dB Min@7500 MHz  
**Packing** \_ Tape

**BALUN**

**Size (mm)** \_ 2.0 x 1.25 x 0.85  
**Frequency Range** \_ 2.40 GHz  
**Pass Band** \_ 2400 to 2500 MHz  
**Impedance** \_ 50/50  $\Omega$   
**Insertion Loss (Max.)** \_ 1.0 dB

**Ripple (Max.)** \_ 0.6 dB  
**VSWR** \_ 2.0  
**Amplitude Balance (Max.)** \_  
 2.0 dB  
**Phase Differential** \_  
 180 $\pm$ 8 degree  
**Packing** \_ Tape



High Frequency Filter / Balun

**BALUN**



**Size (mm)** \_ 2.0 x 1.25 x 0.85  
**Frequency Range** \_ 2.40 GHz  
**Pass Band** \_ 2400 to 2500 MHz  
**Impedance** \_ 50/100  $\Omega$   
**Insertion Loss (Max.)** \_ 1.0 dB

**Ripple (Max.)** \_ 0.6 dB  
**VSWR** \_ 2.0  
**Amplitude Balance** \_ 2.0 dB  
**Phase Difference (Max.)** \_  
 180 $\pm$ 10 degree  
**Packing** \_ Tape

**BALUN**



**Size (mm)** \_ 2.0 x 1.25 x 0.85  
**Frequency Range** \_ 2.40 GHz  
**Pass Band** \_ 2400 to 2500 MHz  
**Impedance** \_ 50/200  $\Omega$   
**Insertion Loss (Max.)** \_ 1.0 dB

**Ripple (Max.)** \_ 0.6 dB  
**VSWR** \_ 2.0  
**Amplitude Balance** \_ 2.0 dB  
**Phase Difference (Max.)** \_  
 180 $\pm$ 10 degree  
**Packing** \_ Tape

**DIPLEXER**



**Size (mm)** \_ 2.0 x 1.25 x 0.8  
**Frequency Range** \_ 2.40/5.0 GHz  
**Pass Band** \_ 2400 to 5000 MHz  
**Insertion Loss (Max.)** \_ 0.7 dB

**VSWR** \_ 2.0  
**Attenuation** \_  
 17 dB Min@4880-6000 MHz  
 20 dB Min@7200-7500 MHz  
**Packing** \_ Tape



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**High Frequency Filter / Balun**

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**DIPLEXER****Size (mm)** \_ 2.0 x 1.25 x 0.8**Frequency Range** \_ 2.40/5.0 GHz**Pass Band** \_ 4900 to 5900 MHz**Insertion Loss (Max.)** \_ 1.6 dB**VSWR** \_ 2.0**Attenuation** \_

17 dB Min@1800-2500 MHz

20 dB Min@10,300-10,700 MHz

**Packing** \_ Tape

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## YAGEO - A GLOBAL COMPANY

### ASIA

Taiwan, Taipei t. +886 2 2917 7555 f. +886 2 2917 4286, China, Beijing t. +86 10 851 20810 f. +86 10 85120200  
China, Dongguan t. +86 769 772 0275 f. +86 769 791 0053, China, Suzhou t. +86 512 825 5568 f. +86 512 825 5386  
Hong Kong t. +852 2342 6833 f. +852 2342 6588, Japan, Tokyo t. +81 3 5833 3331 f. +81 3 5833 3116  
Korea, Kyunggi-Do t. +82 31 712 4797 f. +82 31 712 5866, Malaysia, Kuala Lumpur t. +60 3 5882 2854 f. +60 3 5882 8700  
Malaysia, Penang t. +60 4 397 3317 f. +60 4 397 3272, Singapore t. +65 6244 7800 f. +65 6244 4943

### EUROPE

Benelux, Roermond t. +31 475 385 357 f. +31 475 385 589, Finland, Espoo t. +358 9 2707 5851 f. +358 9 2707 5852  
France, Paris t. +33 1 55 51 84 00 f. +33 1 55 51 84 24, Germany, Hamburg t. +49 4121 870 0 f. +49 4121 870 271  
Italy, Milan t. +39 02 2411 301 f. +39 02 2411 3051, UK, Leatherhead t. +44 1372 364 500 f. +44 1372 364 567  
Spain, Barcelona t. +34 93 238 9172 f. +34 93 415 9951, Hungary, Budapest t. +36 30 3777 441 f. +36 94 517 701  
Russia, Moscow t. +7 501 430 96 27 f. +7 095 567 02 66, Sweden, Stockholm t. +46 8 514 933 55 f. +46 8 514 933 51  
Czech Republic, Brno t. +420 5 4323 9233 f. +420 5 4323 9233

### NORTH AMERICA

U.S.A., Woodinville t. +1 425 492 2818 f. +1 425 492 2819, U.S.A., Dallas t. +1 972 599 0099 f. +1 972 599 0099

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