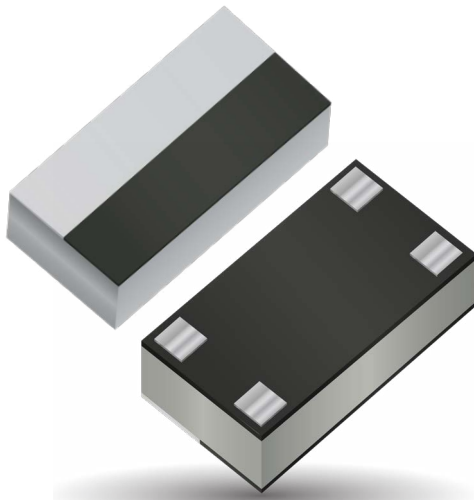


# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

### LP1206A0512BNTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

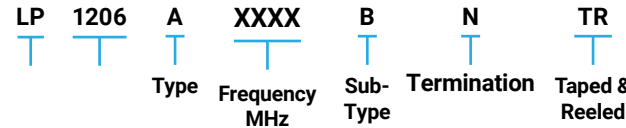
#### FEATURES

- Small size: 1206
- Frequency: 512MHz
- Characteristic impedance: 50Ω
- Operating/Storage temp: -40°C to +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I<sub>R</sub>, 4 hours

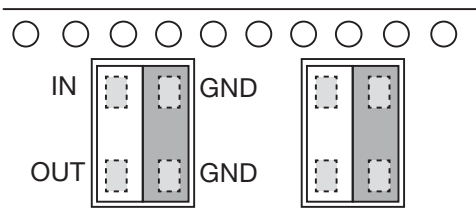
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

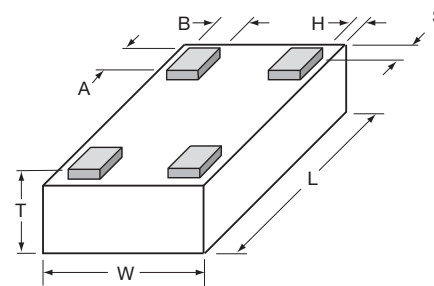
#### POWER RATING

3W RF Continuous

#### ORIENTATION IN TAPE



#### DIMENSIONS (BOTTOM VIEW)

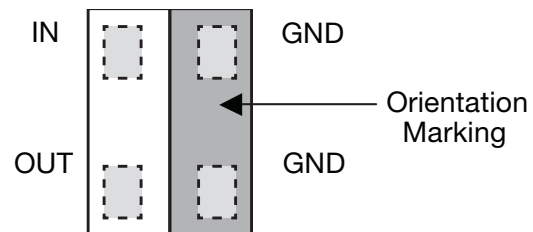


mm (inches)

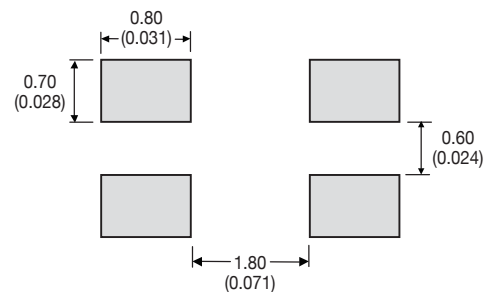
L	3.10±0.10 (0.122±0.004)
W	1.60±0.10 (0.063±0.004)
T	0.60±0.30 (0.024±0.012)
A	0.39±0.10 0.015±0.004
B	0.33±0.10 0.013±0.004
H, S	0.05±0.05 (0.002±0.002)



#### TERMINALS (TOP VIEW)



#### RECOMMENDED PAD LAYOUT DIMENSIONS: mm (inches)



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

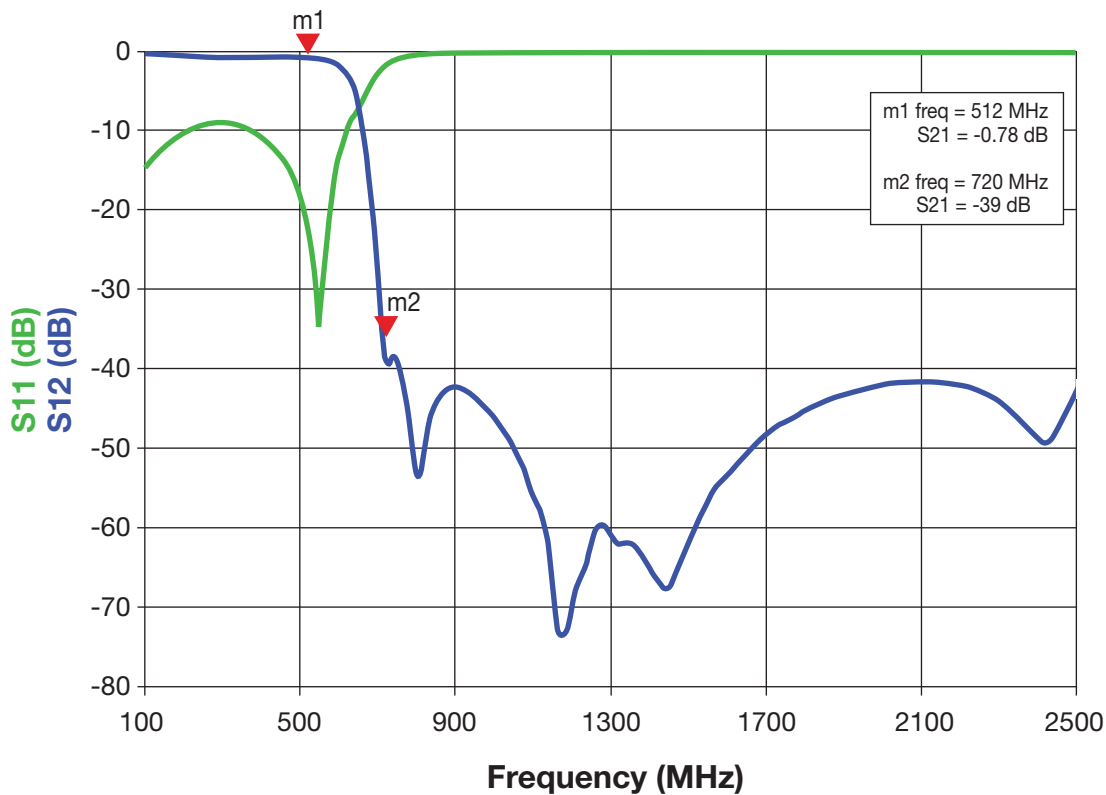
### LP1206A0512BNTR – LGA Termination



#### TERMINALS (TOP VIEW)

Parameter	Value	Unit	Notes
Fc	512	MHz	
Rejection @ 900MHz	-35	dB	Min. (720MHz to 2GHz)
Insertion Loss	0.8	dB	Max.
VSWR	2.3:1		Max. (all ports)
Power Handling	3	W	Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

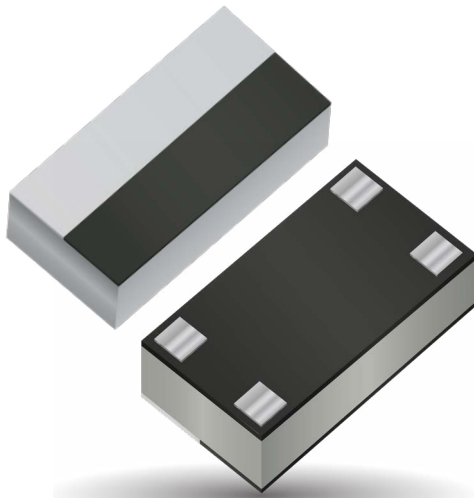
#### TYPICAL ELECTRICAL PERFORMANCE



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

### LP1206A0600ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

#### FEATURES:

- Small size: 1206
- Frequency: 600MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS:

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's

#### PART NUMBER CODE:

LP 1206 A XXXX ANTR  
Frequency  
(MHz)

#### FINAL QUALITY INSPECTION:

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

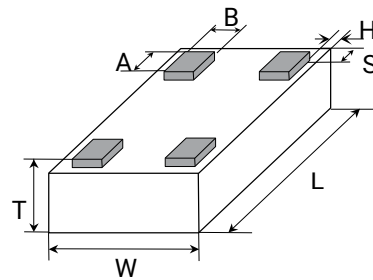
- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

#### TERMINATION:

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### DIMENSIONS:

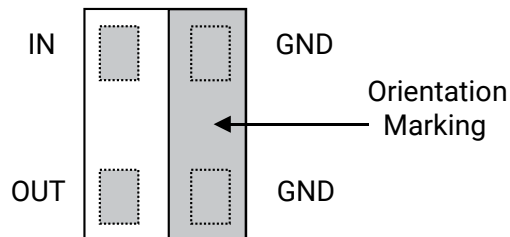
##### (BOTTOM VIEW)



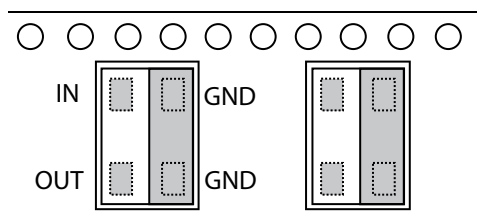
mm (inches)

L	3.10±0.10 (0.122±0.004)
W	1.60±0.10 (0.063±0.004)
T	0.60±0.30 (0.024±0.012)
A	0.39±0.10 0.015±0.004
B	0.33±0.10 0.013±0.004
H, S	0.05±0.05 (0.002±0.002)

#### TERMINALS (TOP VIEW)



#### ORIENTATION IN TAPE

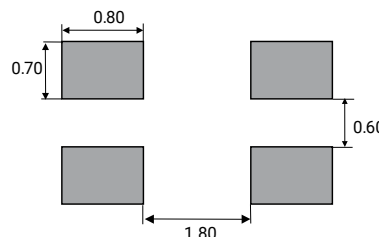


#### POWER RATING:

12W continuous

#### RECOMMENDED PAD LAYOUT:

(mm)



**Thin-Film RF/Microwave Filters**  
**1206 High Performance Low Pass 12W**  
**LP1206A0600ANTR – LGA Termination**



**ELECTRICAL CHARACTERISTICS**

LP1206A0600ANTR			
Parameter	Value	Unit	Notes
Fc	600	MHz	
Rejection	-40	dB	Min. @900MHz
Rejection	-40	dB	Typ. 900MHz to 3.1GHz
I.Loss @ 600MHz	-0.8	dB	Max.
R.Loss @ 600MHz	-20	dB	typ.
Power Handling	12	W	RF cont.
Impedance	50	Ohm	
Operating Temp.	-40 to +85	degC	
Size	1206		

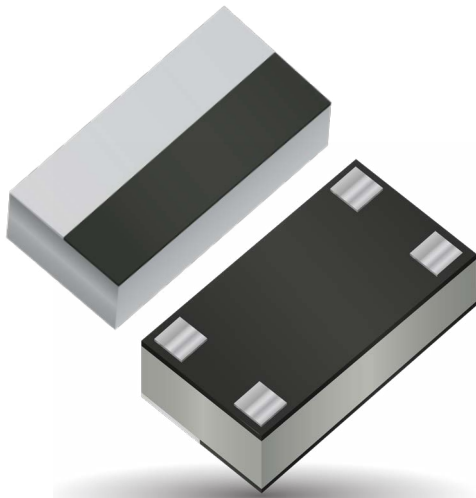
**TYPICAL ELECTRICAL PERFORMANCE**



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

### LP1206A0700ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

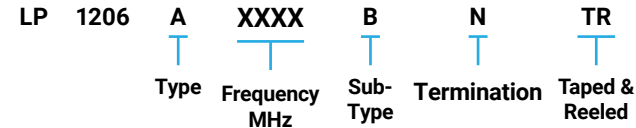
#### FEATURES

- Small size: 1206
- Frequency: 700MHz
- Characteristic impedance: 50Ω
- Operating/Storage temp: -40°C to +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, IR, 4 hours

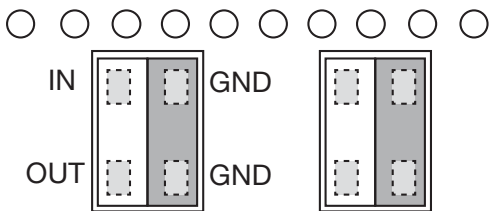
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

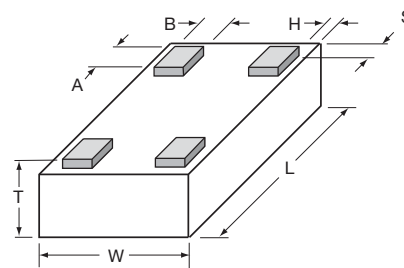
#### POWER RATING

3W RF Continuous

#### ORIENTATION IN TAPE



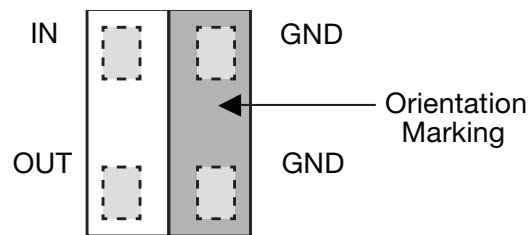
#### DIMENSIONS (BOTTOM VIEW)



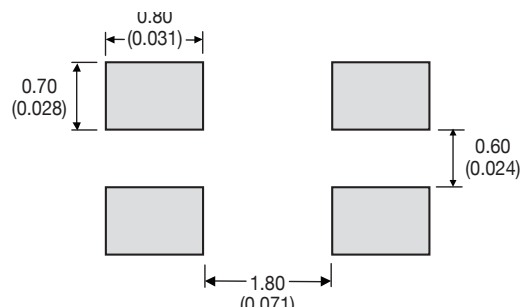
#### mm (inches)

L	3.10±0.10 (0.122±0.004)
W	1.60±0.10 (0.063±0.004)
T	0.60±0.30 (0.024±0.012)
A	0.39±0.10 0.015±0.004
B	0.33±0.10 0.013±0.004
H, S	0.05±0.05 (0.002±0.002)

#### TERMINALS (TOP VIEW)



#### RECOMMENDED PAD LAYOUT DIMENSIONS: mm (inches)



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

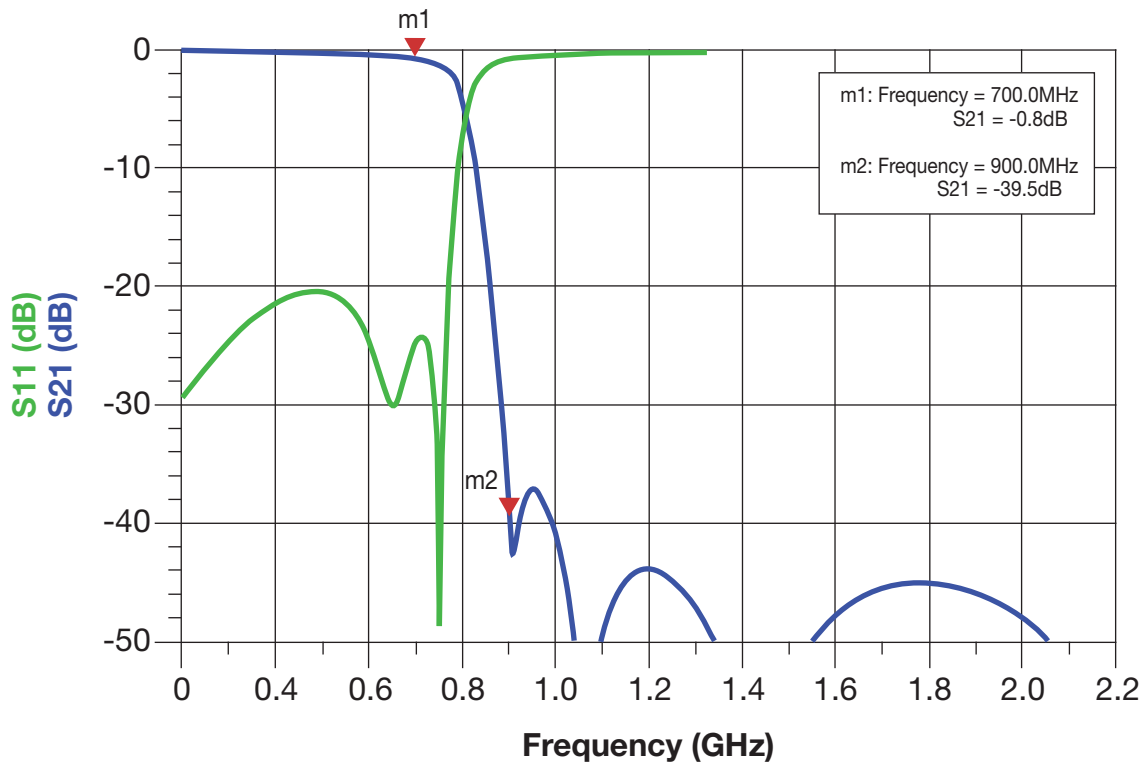
### LP1206A0700ANTR – LGA Termination



#### TERMINALS (TOP VIEW)

Parameter	Value	Unit	Notes
Fc	700	MHz	
Rejection @ 900MHz	-35	dB	Min. (900MHz to 2GHz)
Insertion Loss	0.9	dB	Max.
VSWR	2.3: 1		Max. (all ports)
Power Handling	3	W	Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

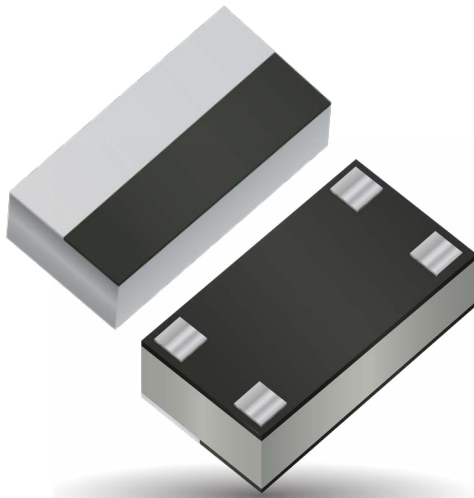
#### TYPICAL ELECTRICAL PERFORMANCE



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

### LP1206A0720ANTR – LGA Termination



**PART NUMBER CODE:**  
 LP 1206 A XXXX ANTR  
 Frequency  
 (MHz)

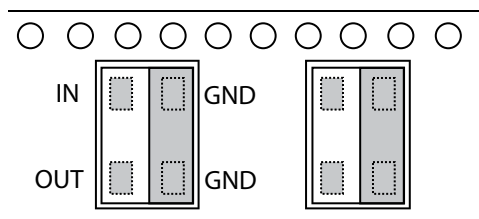
**FINAL QUALITY INSPECTION:**  
 Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

**TERMINATION:**  
 Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

**POWER RATING:**  
 12W continuous

#### ORIENTATION IN TAPE



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

#### FEATURES:

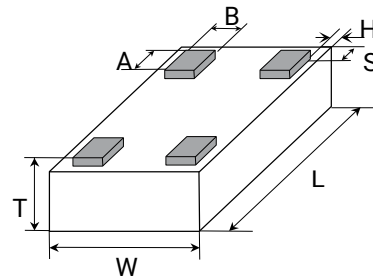
- Small size: 1206
- Frequency: 725MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS:

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's

#### DIMENSIONS:

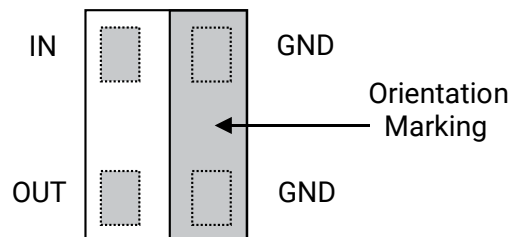
mm (inches)  
**(BOTTOM VIEW)**



mm (inches)

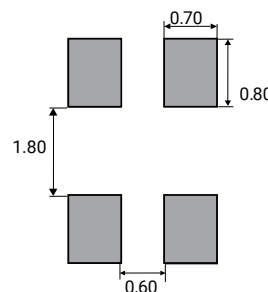
L	3.10±0.10 (0.122±0.004)
W	1.60±0.10 (0.063±0.004)
T	0.60±0.30 (0.024±0.012)
A	0.39±0.10 (0.015±0.004)
B	0.33±0.10 (0.013±0.004)
H, S	0.05±0.05 (0.002±0.002)

#### TERMINALS (TOP VIEW)



#### RECOMMENDED PAD LAYOUT:

(mm)



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

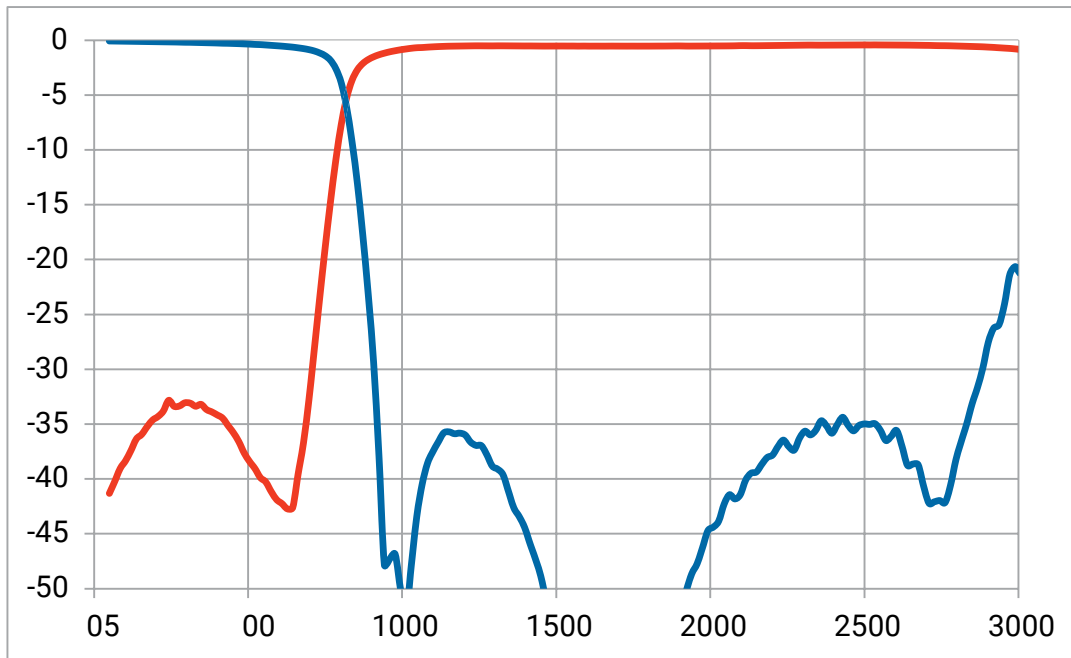
### LP1206A0720ANTR – LGA Termination



#### ELECTRICAL CHARACTERISTICS

LP1206A0600ANTR			
Parameter	Value	Unit	Notes
Fc	720	MHz	
Rejection @875MHz	-15	dB	Min. @875-2500MHz
Insertion Loss	1.2	dB	Max.
VSWR	1.49:1	dB	typ.
Power Handling	12	W	RF cont.
Impedance	50	Ohm	
Operating Temp.	-40 to +85	degC	
Size	1206		

#### TYPICAL ELECTRICAL PERFORMANCE

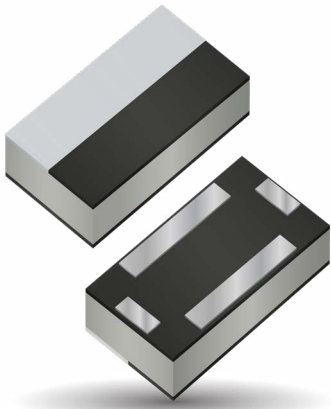




# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

### LP1206A2000ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

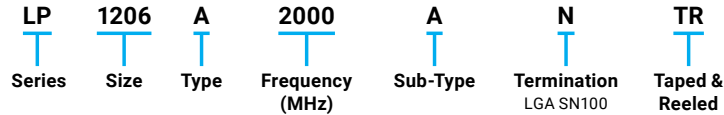
#### FEATURES

- Small size: 1206
- Frequency: 2.0GHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's
- 5G Application

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I<sub>R</sub>, 4 hours

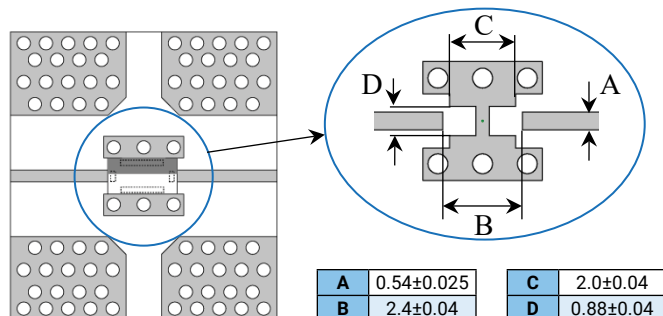
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### POWER RATING

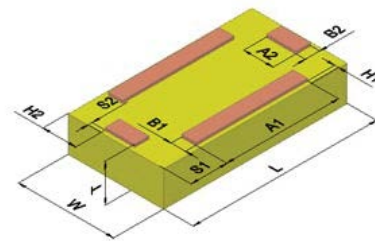
12W Continuous

#### RECOMMENDED PAD LAYOUT: (mm)



#### DIMENSIONS: mm (inches)

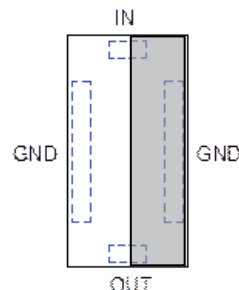
(Bottom View)



<b>L</b>	3.1±0.1	<b>B1,B2</b>	0.25±0.1
<b>W</b>	1.6±0.1	<b>H1</b>	0.06±0.06
<b>T</b>	0.6±0.3	<b>H2</b>	0.56±0.10
<b>A1</b>	1.9±0.1	<b>S1</b>	0.61±0.1
<b>A2</b>	0.5±0.1	<b>S2</b>	0.06±0.06

#### TERMINALS:

(Top View)



# Thin-Film RF/Microwave Filters

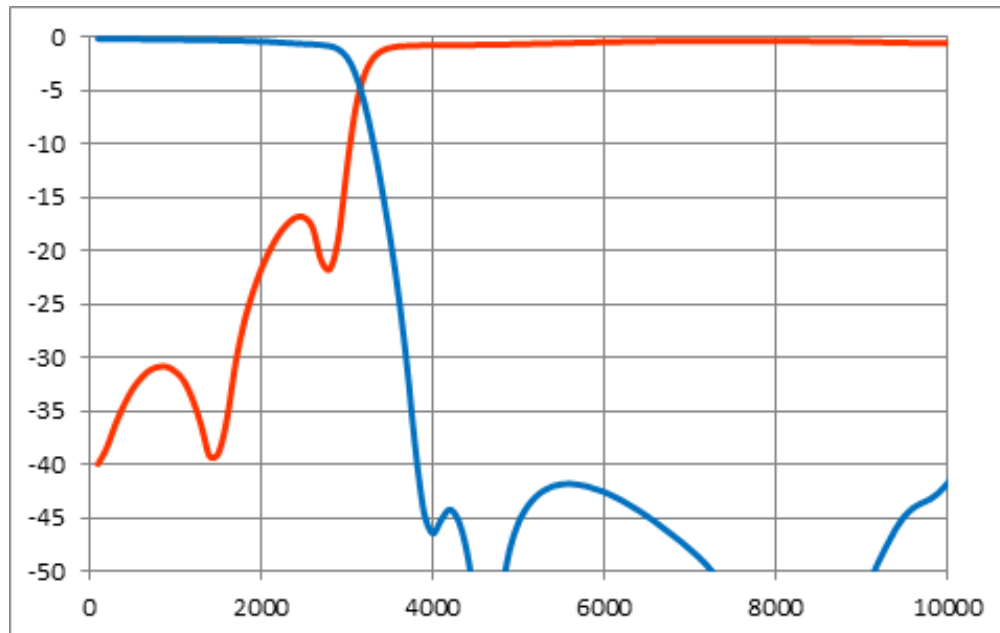
## High Performance Low Pass Filters

### LP1206A2000ANTR – LGA Termination

#### ELECTRICAL CHARACTERISTICS

LP1206A2000ANTR			
Parameter	Value	Unit	Notes
Passband	2.0	GHz	
Insertion Loss @2.0GHz	-0.7	dB	
R.Loss @2.0 GHz	-12	dB	
Rejection @ 4.0- 8.0 GHz	-35	dB	
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

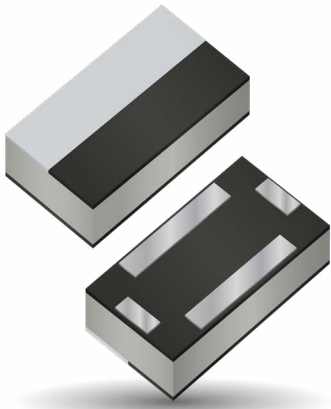
#### TYPICAL ELECTRICAL PERFORMANCE



# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

### LP1206A2500ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

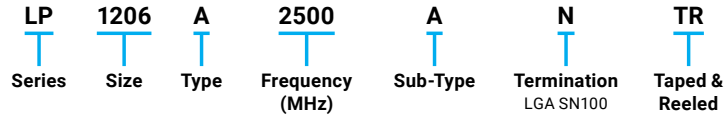
#### FEATURES

- Small size: 1206
- Frequency: 2.5GHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's
- 5G Application

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I<sub>R</sub>, 4 hours

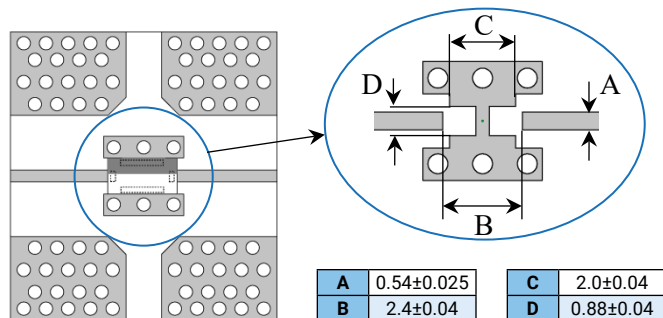
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### POWER RATING

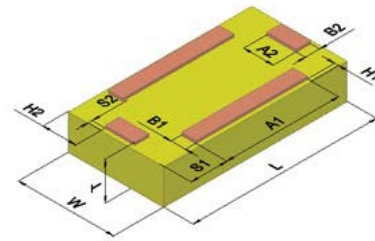
12W Continuous

#### RECOMMENDED PAD LAYOUT: (mm)



#### DIMENSIONS: mm (inches)

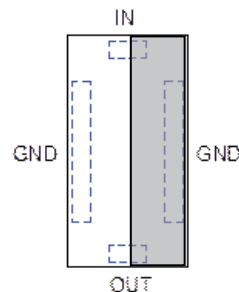
(Bottom View)



<b>L</b>	3.1±0.1	<b>B1,B2</b>	0.25±0.1
<b>W</b>	1.6±0.1	<b>H1</b>	0.06±0.06
<b>T</b>	0.6±0.3	<b>H2</b>	0.56±0.10
<b>A1</b>	1.9±0.1	<b>S1</b>	0.61±0.1
<b>A2</b>	0.5±0.1	<b>S2</b>	0.06±0.06

#### TERMINALS:

(Top View)



# Thin-Film RF/Microwave Filters

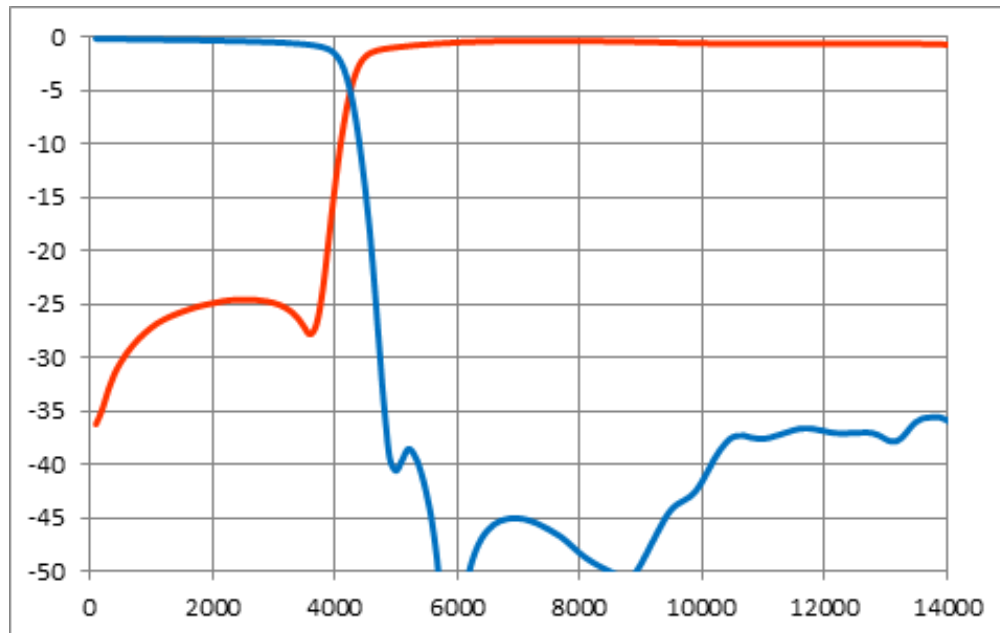
## High Performance Low Pass Filters

### LP1206A2500ANTR – LGA Termination

#### ELECTRICAL CHARACTERISTICS

LP1206A2500ANTR			
Parameter	Value	Unit	Notes
Passband	2.5	GHz	
Insertion Loss @2.5 GHz	-0.7	dB	
R.Loss @2.5 GHz	-12	dB	
Rejection @ 5.0-10 GHz	-35	dB	
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

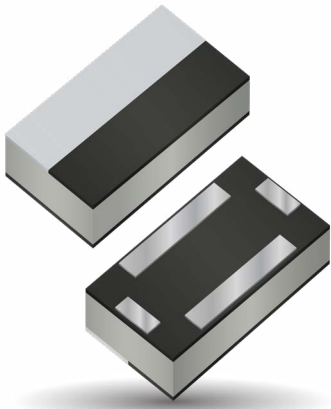
#### TYPICAL ELECTRICAL PERFORMANCE



# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

### LP1206A2700ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

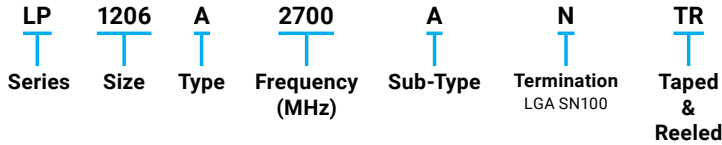
#### FEATURES

- Small size: 1206
- Frequency: 2.7GHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's
- 5G Application

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I<sub>R</sub>, 4 hours

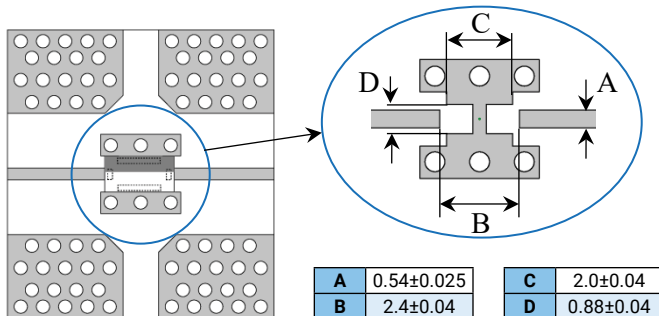
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### POWER RATING

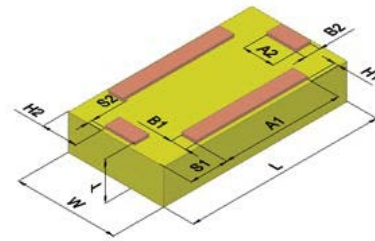
12W Continuous

#### RECOMMENDED PAD LAYOUT: (mm)



#### DIMENSIONS: mm (inches)

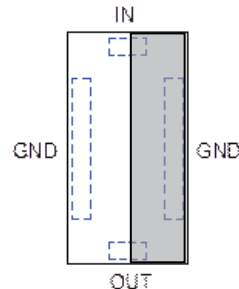
(Bottom View)



<b>L</b>	3.1±0.1	<b>B1,B2</b>	0.25±0.1
<b>W</b>	1.6±0.1	<b>H1</b>	0.06±0.06
<b>T</b>	0.6±0.3	<b>H2</b>	0.56±0.10
<b>A1</b>	1.9±0.1	<b>S1</b>	0.61±0.1
<b>A2</b>	0.5±0.1	<b>S2</b>	0.06±0.06

#### TERMINALS:

(Top View)



# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

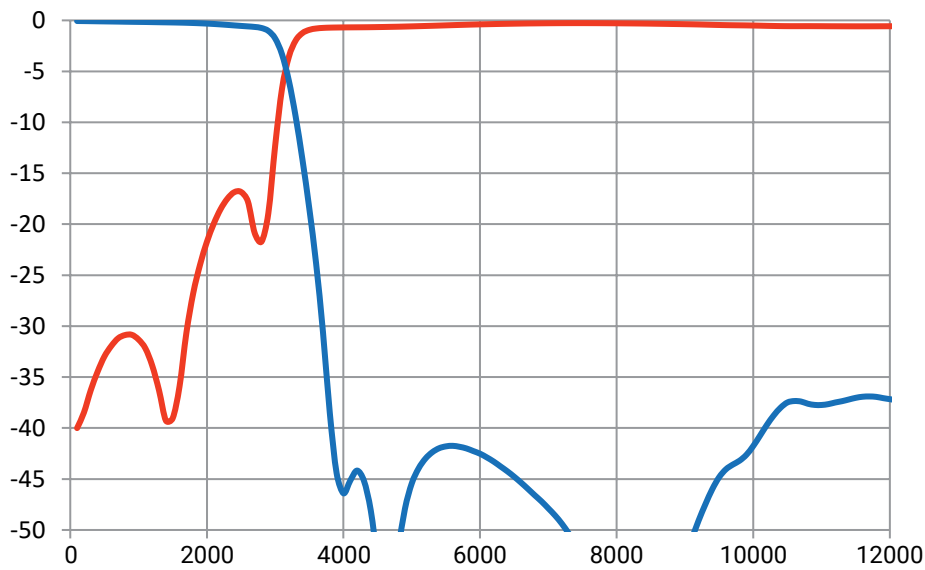
### LP1206A2700ANTR – LGA Termination



#### ELECTRICAL CHARACTERISTICS

LP1206A2700ANTR			
Parameter	Value	Unit	Notes
Passband	2.7	GHz	
Insertion Loss @2.7Hz	-0.85	dB	
R.Loss @2.7GHz	-12	dB	
Rejection @ 5.4-10GHz	-35	dB	
Rejection @ 10.0-11.5Hz	-30	dB	
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

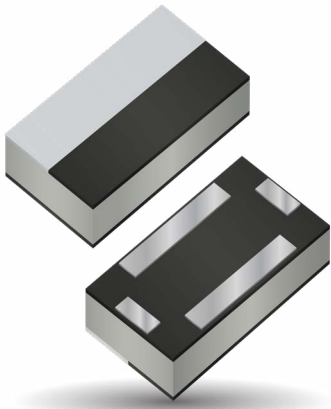
#### TYPICAL ELECTRICAL PERFORMANCE



# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

### LP1206A3000ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

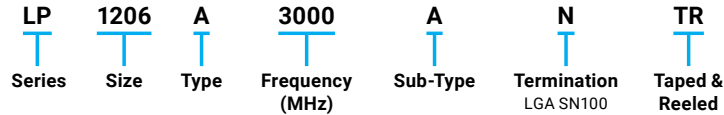
#### FEATURES

- Small size: 1206
- Passband: 3000MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's
- 5G Application

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I<sub>R</sub>, 4 hours

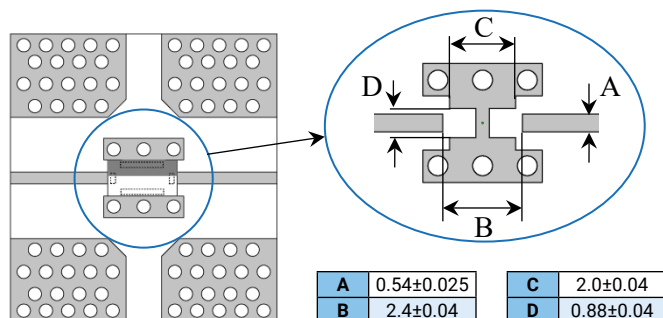
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### POWER RATING

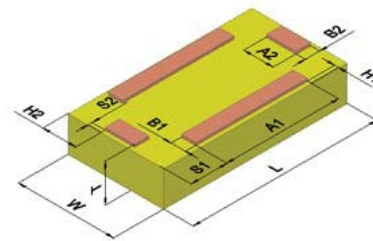
12W Continuous

#### RECOMMENDED PAD LAYOUT: (mm)



#### DIMENSIONS: mm (inches)

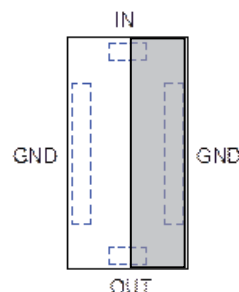
(Bottom View)



L	3.1±0.1	B1,B2	0.25±0.1
W	1.6±0.1	H1	0.06±0.06
T	0.6±0.3	H2	0.56±0.10
A1	1.9±0.1	S1	0.61±0.1
A2	0.5±0.1	S2	0.06±0.06

#### TERMINALS:

(Top View)



# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

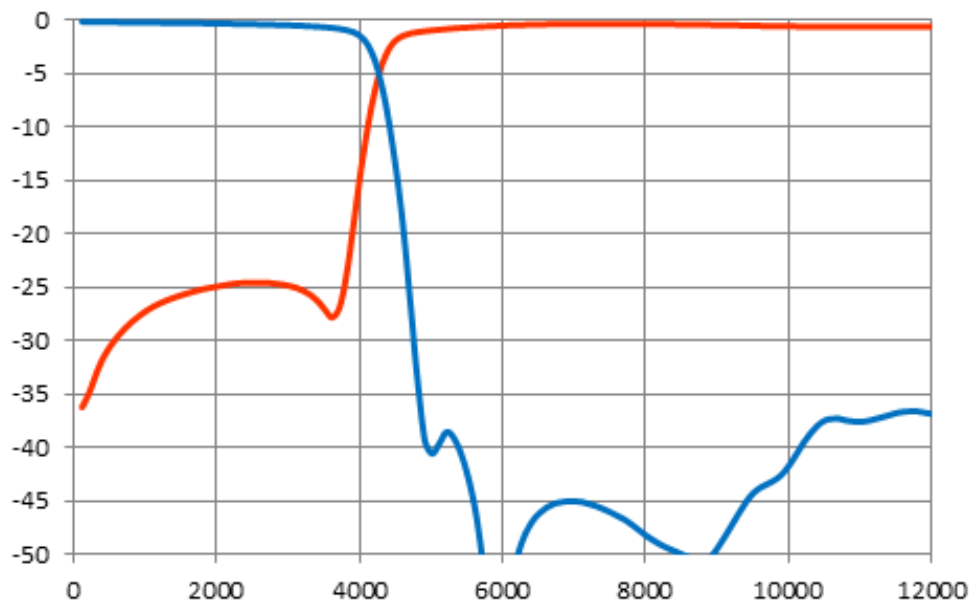
### LP1206A3000ANTR – LGA Termination



#### ELECTRICAL CHARACTERISTICS

LP1206A3000ANTR			
Parameter	Value	Unit	Notes
Passband	3.0	GHz	
Insertion Loss @ 3.0GHz	-0.7	dB	
R.Loss @ 3.0GHz	-12	dB	
Rejection @ 6.0-9.0 GHz	-40	dB	
Rejection @ 9.0-12.0 GHz	-30	dB	
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

#### TYPICAL ELECTRICAL PERFORMANCE

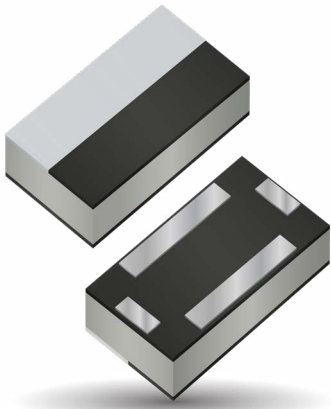




# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

### LP1206A3200ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

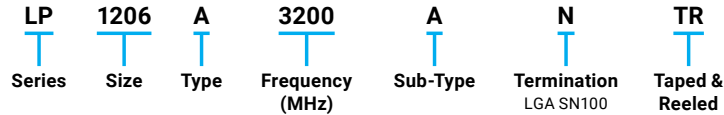
#### FEATURES

- Small size: 1206
- Passband: 3200MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's
- 5G Application

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I<sub>R</sub>, 4 hours

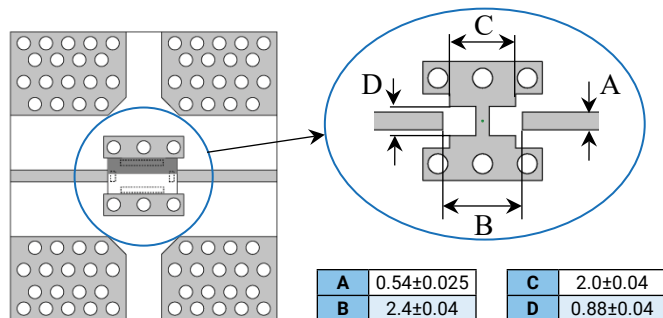
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### POWER RATING

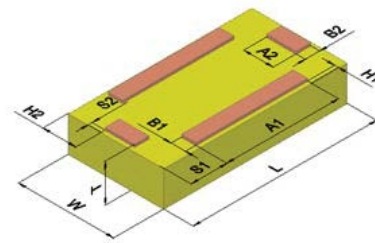
12W Continuous

#### RECOMMENDED PAD LAYOUT: (mm)



#### DIMENSIONS: mm (inches)

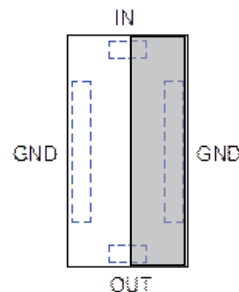
(Bottom View)



<b>L</b>	3.1±0.1	<b>B1,B2</b>	0.25±0.1
<b>W</b>	1.6±0.1	<b>H1</b>	0.06±0.06
<b>T</b>	0.6±0.3	<b>H2</b>	0.56±0.10
<b>A1</b>	1.9±0.1	<b>S1</b>	0.61±0.1
<b>A2</b>	0.5±0.1	<b>S2</b>	0.06±0.06

#### TERMINALS:

(Top View)



# Thin-Film RF/Microwave Filters

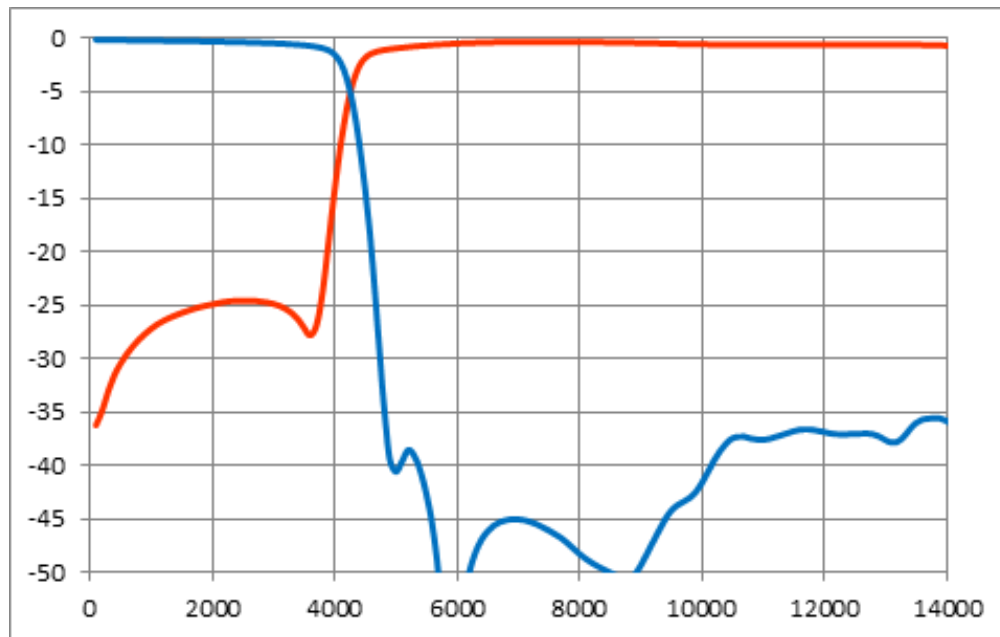
## High Performance Low Pass Filters

### LP1206A3200ANTR – LGA Termination

#### ELECTRICAL CHARACTERISTICS

LP1206A3200ANTR			
Parameter	Value	Unit	Notes
Passband	3.2	GHz	
Insertion Loss @3.2GHz	-0.7	dB	
R.Loss @3.2GHz	-12	dB	
Rejection @ 6.4 -10GHz	-38	dB	
Rejection @ 10 – 12.8GHz	-30	dB	
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

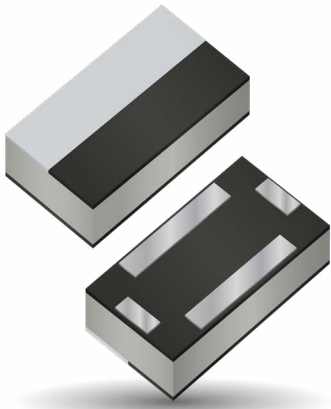
#### TYPICAL ELECTRICAL PERFORMANCE



# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

### LP1206A3300ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

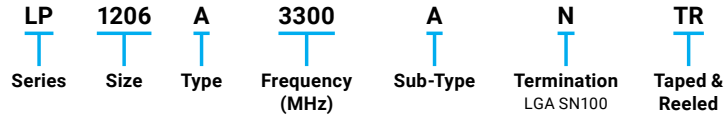
#### FEATURES

- Small size: 1206
- Passband: 3300MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's
- 5G Application

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I<sub>R</sub>, 4 hours

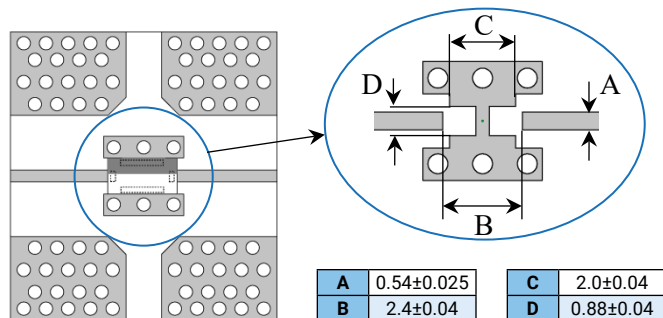
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### POWER RATING

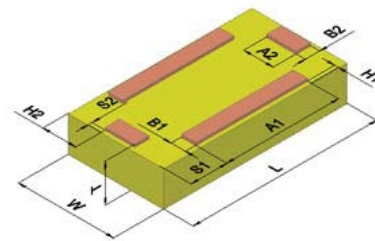
12W Continuous

#### RECOMMENDED PAD LAYOUT: (mm)



#### DIMENSIONS: mm (inches)

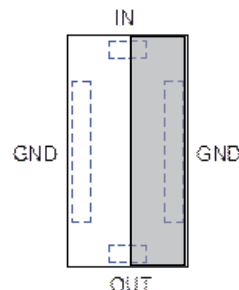
(Bottom View)



<b>L</b>	3.1±0.1	<b>B1,B2</b>	0.25±0.1
<b>W</b>	1.6±0.1	<b>H1</b>	0.06±0.06
<b>T</b>	0.6±0.3	<b>H2</b>	0.56±0.10
<b>A1</b>	1.9±0.1	<b>S1</b>	0.61±0.1
<b>A2</b>	0.5±0.1	<b>S2</b>	0.06±0.06

#### TERMINALS:

(Top View)



# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

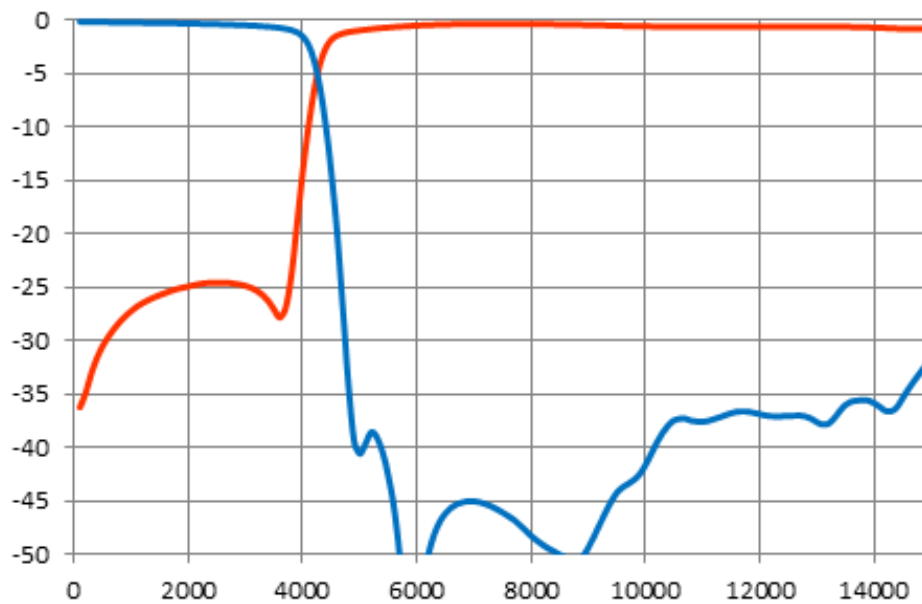
### LP1206A3300ANTR – LGA Termination



#### ELECTRICAL CHARACTERISTICS

LP1206A3300ANTR			
Parameter	Value	Unit	Notes
Passband	3.3	GHz	
Insertion Loss @3.3GHz	-0.7	dB	
R.Loss @3.3GHz	-12	dB	
Rejection @ 6.6 -10GHz	-35	dB	
Rejection @ 10 - 15GHz	-28	dB	
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

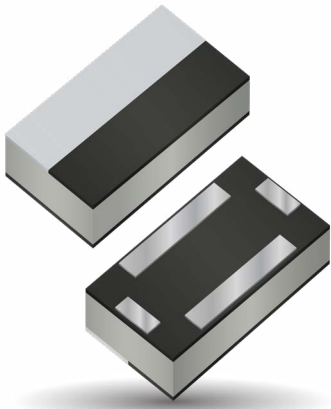
#### TYPICAL ELECTRICAL PERFORMANCE



# Thin-Film RF/Microwave Filters

## High Performance Low Pass Filters

### LP1206A3500ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

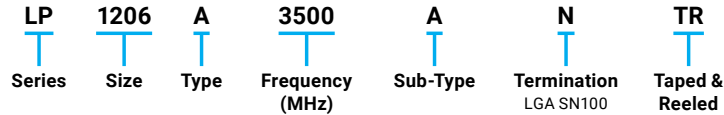
#### FEATURES

- Small size: 1206
- Passband: 3500MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's
- 5G Application

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I<sub>R</sub>, 4 hours

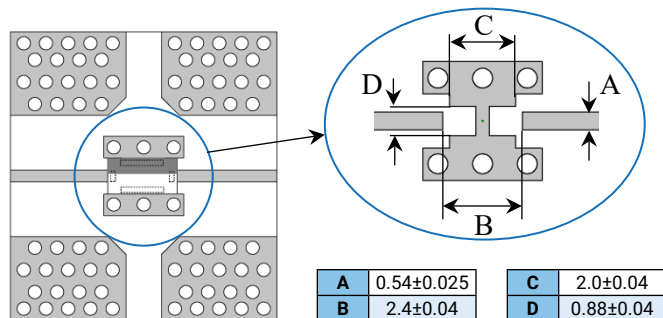
#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### POWER RATING

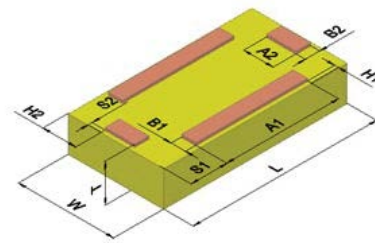
12W Continuous

#### RECOMMENDED PAD LAYOUT: (mm)



#### DIMENSIONS: mm (inches)

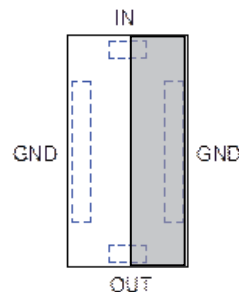
(Bottom View)



L	3.1±0.1	B1,B2	0.25±0.1
W	1.6±0.1	H1	0.06±0.06
T	0.6±0.3	H2	0.56±0.10
A1	1.9±0.1	S1	0.61±0.1
A2	0.5±0.1	S2	0.06±0.06

#### TERMINALS:

(Top View)



# Thin-Film RF/Microwave Filters

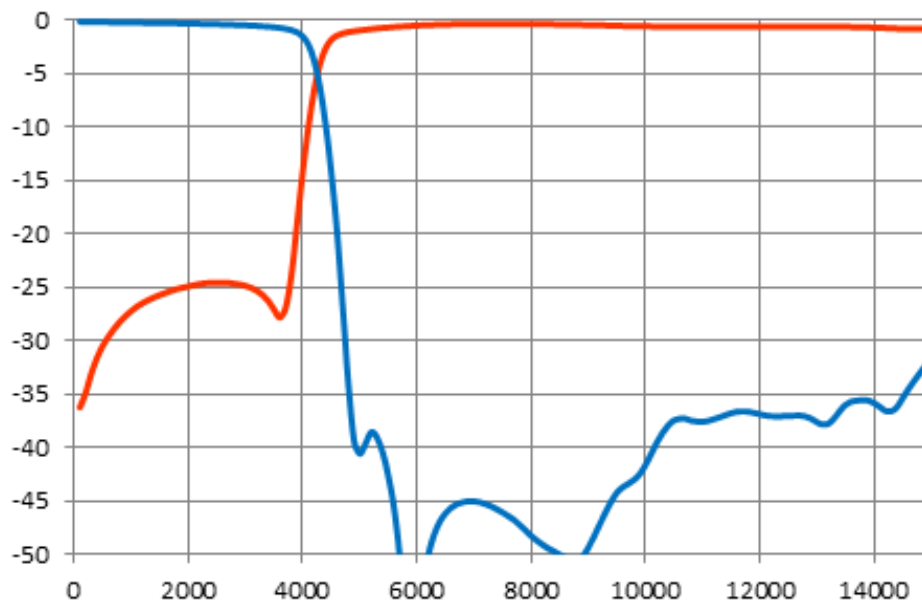
## High Performance Low Pass Filters

### LP1206A3500ANTR – LGA Termination

#### ELECTRICAL CHARACTERISTICS

LP1206A3500ANTR			
Parameter	Value	Unit	Notes
Passband	3.5	GHz	
Insertion Loss @3.5GHz	-0.7	dB	
R.Loss @3.5GHz	-12	dB	
Rejection @ 6.0-10.5 GHz	-36	dB	
Rejection @ 10.5-15 GHz	-27	dB	
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		

#### TYPICAL ELECTRICAL PERFORMANCE



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

### LP1206A5000ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

#### FEATURES:

- Small size: 1206
- Frequency: 5000MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS:

- 5G \ UWB
- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's

#### FINAL QUALITY INSPECTION:

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

#### TERMINATION:

Nickel/ Lead-Free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

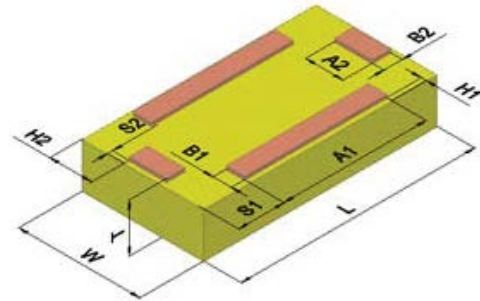
#### PART NUMBER CODE:

LP 1206 A 5000 ANTR  
 Frequency  
 (MHz)

#### POWER RATING:

12W continuous

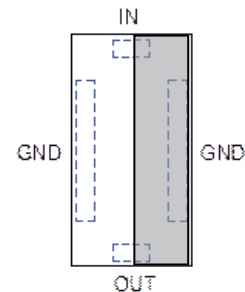
#### DIMENSIONS - MM (TOP VIEW)



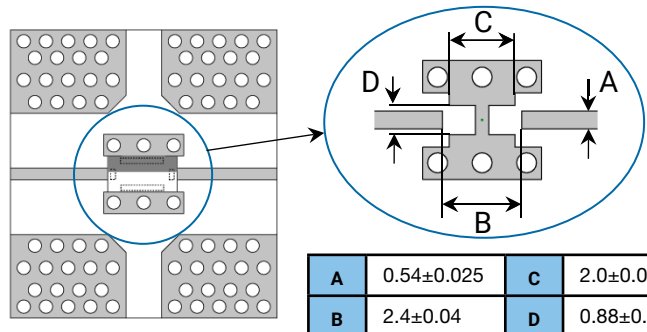
L	3.1±0.1
W	1.6±0.1
T	0.6±0.3
A1	1.9±0.1
B2	0.5±0.1

B1, B2	0.25±0.1
H1	0.06±0.06
H2	0.56±0.10
S1	0.61±0.1
S2	0.06±0.06

#### TERMINALS AND LAYOUT (TOP VIEW)



#### RECOMMENDED PAD LAYOUT (MM)

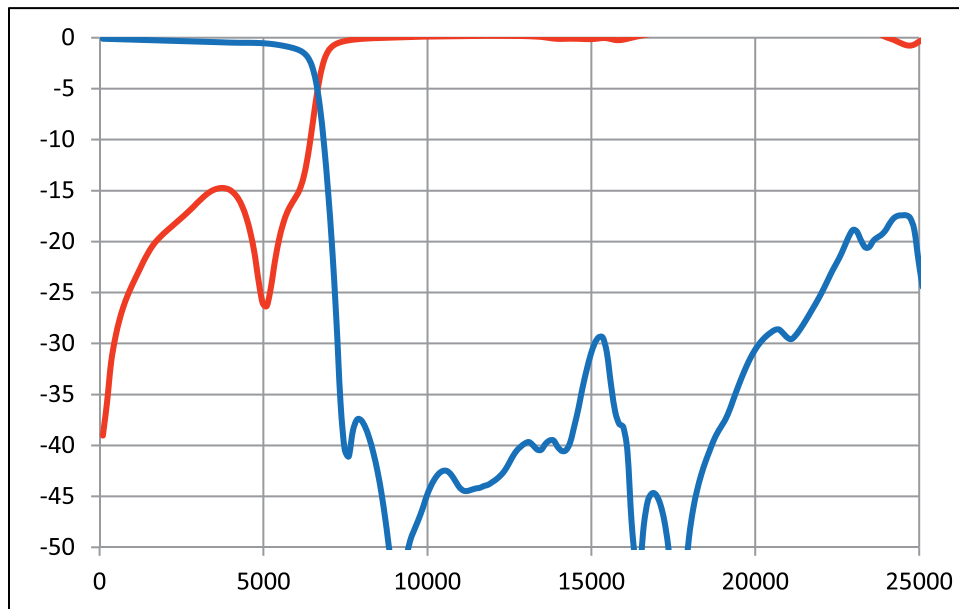


A	0.54±0.025	C	2.0±0.04
B	2.4±0.04	D	0.88±0.04

**Thin-Film RF/Microwave Filters**  
**1206 High Performance Low Pass 12W**  
**LP1206A5000ANTR – LGA Termination**

**ELECTRICAL CHARACTERISTICS**

LP1206A5000ANTR			
Parameter	Value	Unit	Notes
Fc	5000	MHz	
Insertion Loss	-0.7	dB	
R. Loss 0-5GHz	-15	dB	
Rejection	-35	dB	Min. 9.0 - 14.0 GHz
Rejection	-25	dB	Min. 14.0 - 20.0
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		





# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

### LP1206A5200ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

#### FEATURES:

- Small Size: 1206
- Frequency: 5200MHz
- Characteristic Impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +85°C
- Low Profile
- Rugged Construction
- Taped and Reeled
- RoHS Compliant

#### APPLICATIONS:

- 5G \ UWB
- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Location Systems
- Wireless LAN's

#### FINAL QUALITY INSPECTION:

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

#### TERMINATION:

Nickel/ Lead-Free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

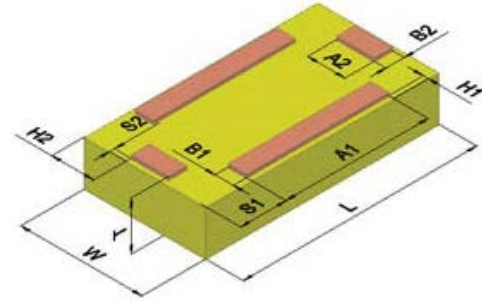
#### PART NUMBER CODE:

LP 1206 A 5200 ANTR  
 Frequency  
 (MHz)

#### POWER RATING:

12W continuous

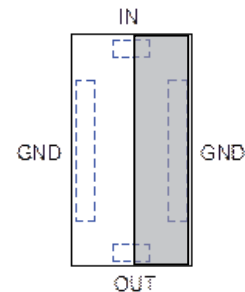
#### DIMENSIONS - MM (TOP VIEW)



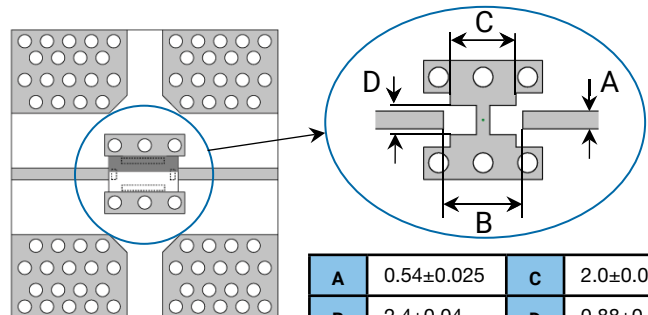
L	3.1±0.1
W	1.6±0.1
T	0.6±0.3
A1	1.9±0.1
B2	0.5±0.1

B1, B2	0.25±0.1
H1	0.06±0.06
H2	0.56±0.10
S1	0.61±0.1
S2	0.06±0.06

#### TERMINALS AND LAYOUT (TOP VIEW)



#### RECOMMENDED PAD LAYOUT (MM)

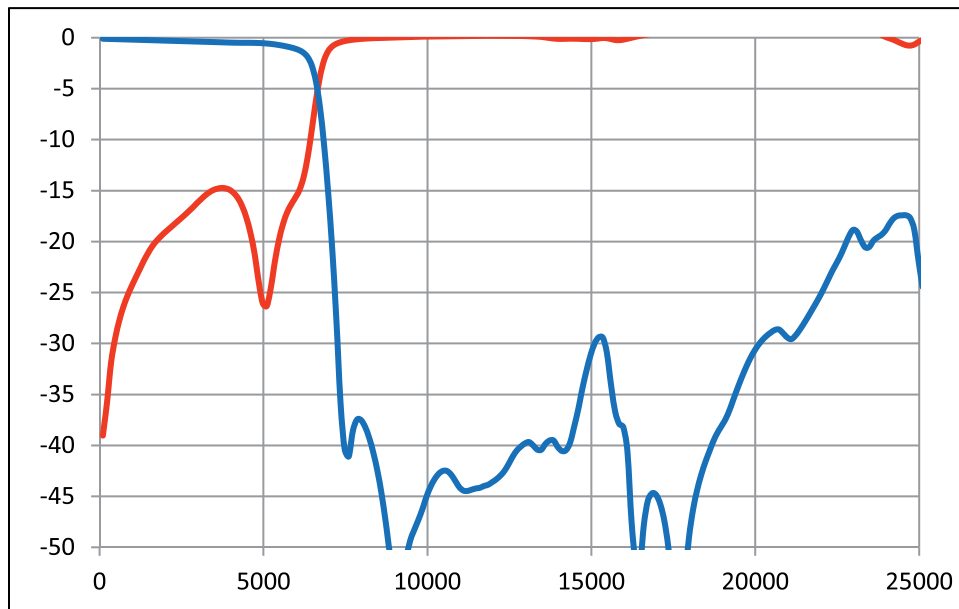


A	0.54±0.025	C	2.0±0.04
B	2.4±0.04	D	0.88±0.04

**Thin-Film RF/Microwave Filters**  
**1206 High Performance Low Pass 12W**  
**LP1206A5200ANTR – LGA Termination**

**ELECTRICAL CHARACTERISTICS**

LP1206A5000ANTR			
Parameter	Value	Unit	Notes
Fc	5200	MHz	
Insertion Loss	-0.75	dB	
R. Loss 0-5GHz	-15	dB	
Rejection	-35	dB	Min. 8.0 - 14.0 GHz
Rejection	-25	dB	Min. 14.0 - 20.0
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

### LP1206A5500ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

#### FEATURES:

- Small Size: 1206
- Frequency: 5500MHz
- Characteristic Impedance: 50Ω
- Operating / Storage Temp: -40°C ÷ +85°C
- Low Profile
- Rugged Construction
- Taped and Reeled
- RoHS Compliant

#### APPLICATIONS:

- 5G \ UWB
- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Location Systems
- Wireless LAN's

#### FINAL QUALITY INSPECTION:

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

#### TERMINATION:

Nickel/ Lead-Free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

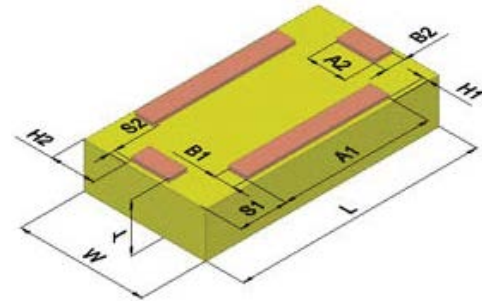
#### PART NUMBER CODE:

LP 1206 A 5500 ANTR  
 Frequency  
 (MHz)

#### POWER RATING:

12W continuous

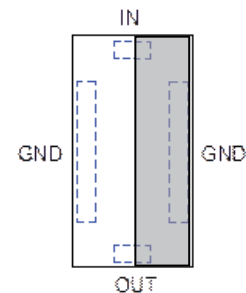
#### DIMENSIONS - MM (TOP VIEW)



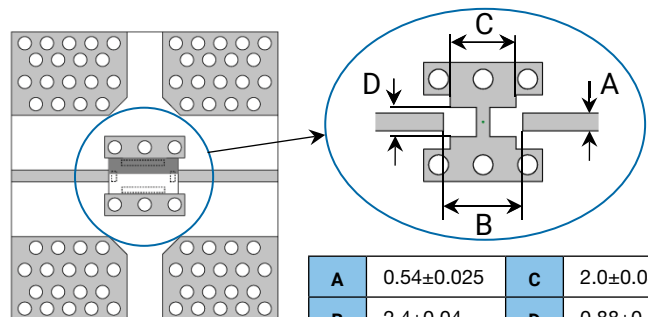
<b>L</b>	3.1±0.1
<b>W</b>	1.6±0.1
<b>T</b>	0.6±0.3
<b>A1</b>	1.9±0.1
<b>B2</b>	0.5±0.1

<b>B1, B2</b>	0.25±0.1
<b>H1</b>	0.06±0.06
<b>H2</b>	0.56±0.10
<b>S1</b>	0.61±0.1
<b>S2</b>	0.06±0.06

#### TERMINALS AND LAYOUT (TOP VIEW)



#### RECOMMENDED PAD LAYOUT (MM)



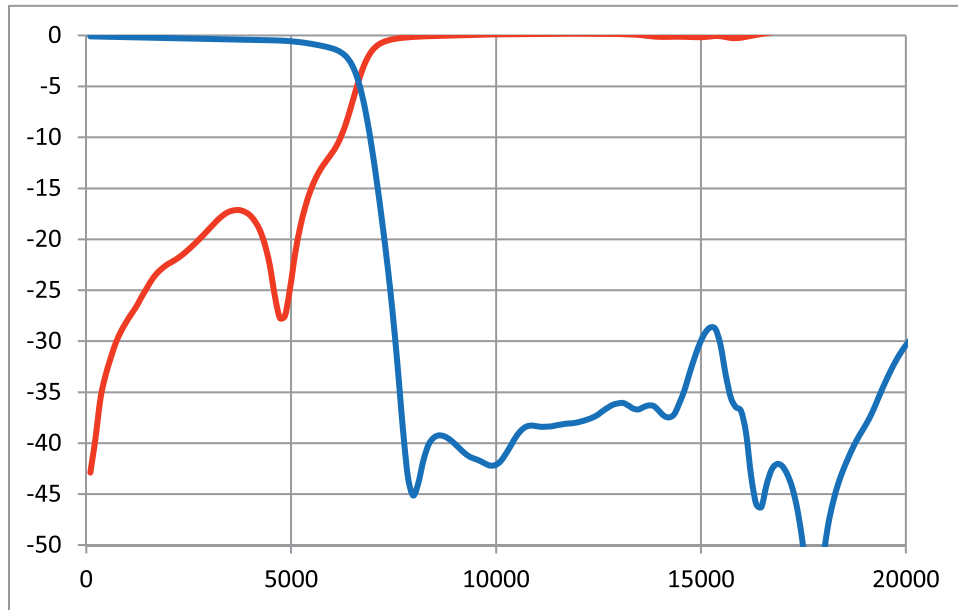
<b>A</b>	0.54±0.025	<b>C</b>	2.0±0.04
<b>B</b>	2.4±0.04	<b>D</b>	0.88±0.04

**Thin-Film RF/Microwave Filters**  
**1206 High Performance Low Pass 12W**  
**LP1206A5500ANTR – LGA Termination**



**ELECTRICAL CHARACTERISTICS**

LP1206A5000ANTR			
Parameter	Value	Unit	Notes
Fc	5500	MHz	
Insertion Loss	-1.0	dB	
R. Loss 0-5GHz	-12	dB	
Rejection	-30	dB	Min. 9.0 - 14.0 GHz
Rejection	-27	dB	Min. 14.0 - 20.0 GHz
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +85	°C	
Size	1206		



# Thin-Film RF/Microwave Filters

## 1206 High Performance Low Pass 12W

### LP1206A6000ANTR – LGA Termination



#### ITF TECHNOLOGY

The ITF LGA Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

#### FEATURES:

- Small size: 1206
- Frequency: 6000MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C ÷ +100°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS:

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's

#### FINAL QUALITY INSPECTION:

Finished parts are 100% tested for electrical parameters and visual/mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

#### TERMINATION:

Nickel/ Lead-Free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

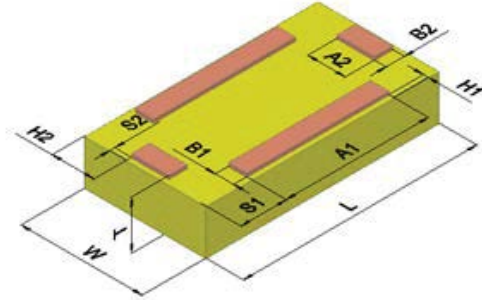
#### PART NUMBER CODE:

LP 1206 A XXXX ANTR  
Frequency  
(MHz)

#### POWER RATING:

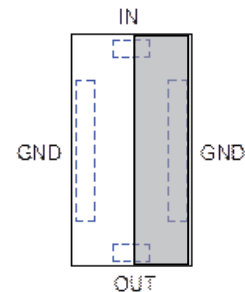
12W continuous

#### DIMENSIONS - MM (INCHES) (TOP VIEW)

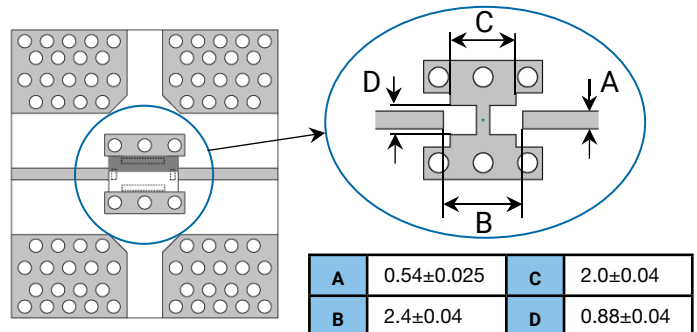


L	3.1±0.1	B1, B2	0.25±0.1
W	1.6±0.1	H1	0.06±0.06
T	0.6±0.3	H2	0.56±0.10
A1	1.9±0.1	S1	0.61±0.1
B2	0.5±0.1	S2	0.06±0.06

#### TERMINALS AND LAYOUT (TOP VIEW)



#### RECOMMENDED PAD LAYOUT (MM)



**Thin-Film RF/Microwave Filters**  
**1206 High Performance Low Pass 12W**  
**LP1206A6000ANTR – LGA Termination**



**ELECTRICAL CHARACTERISTICS**

LP1206A6000ANTR			
Parameter	Value	Unit	Notes
Fc	6000	MHz	
Rejection	-35	dB	Min. 8.4-18GHz
Insertion Loss	-0.6	dB	Max. (6GHz)
R.Loss 0-6GHz	-20	dB	
Power Handling	12	W	RF Continuous
Impedance	50	Ohm	
Operating Temp.	-40 to +100	degC	
Size	1206		

