

Specification

Part No. : LPF.12.01

Product Name : Airvu 1.2GHz Low Pass Filter

Features : SMA(M) Plug to SMA(F) Jack Interface
Frequency Range:300-1400 MHz
Insertion Loss: <1.1 dB
Finish: Black Ni Plated
Total Length: 39 mm
RoHS Compliant



1. Introduction

The Airvu 1.2GHz Low Pass Filter is placed on the end of the antenna port to help eliminate or reduce radio interference problems on UAVs. It does this in two ways

1. It reduces out of band noise entering the receiver that cause effects such as reduction of control range
2. It reduces the antenna transmissions of out of band noise affecting other circuitry on your UAV (such as disrupting the GPS receiver leading to loss of fix, or a live video stream at 5.8GHz)

The LPF.12.01 internal ceramic filter has better insertion loss and stop band performance than competing LTCC or lumped element filters, while also having good rejection at band edges. It uses a standard SMA(M) Plug to SMA(F) Jack interface. This filter is designed to be easily screwed onto this standard antenna SMA connector. Custom versions can be made subject to NRE and MOQ.

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Note

There can still be noise issues that a filter cannot solve. Such as noise that can be radiated directly from the transmitter board and any wiring. Also no filter can protect from in-band noise within the assigned operating frequency of the receiver. Always try to place noisy components as far away from a receiver and antenna as possible.

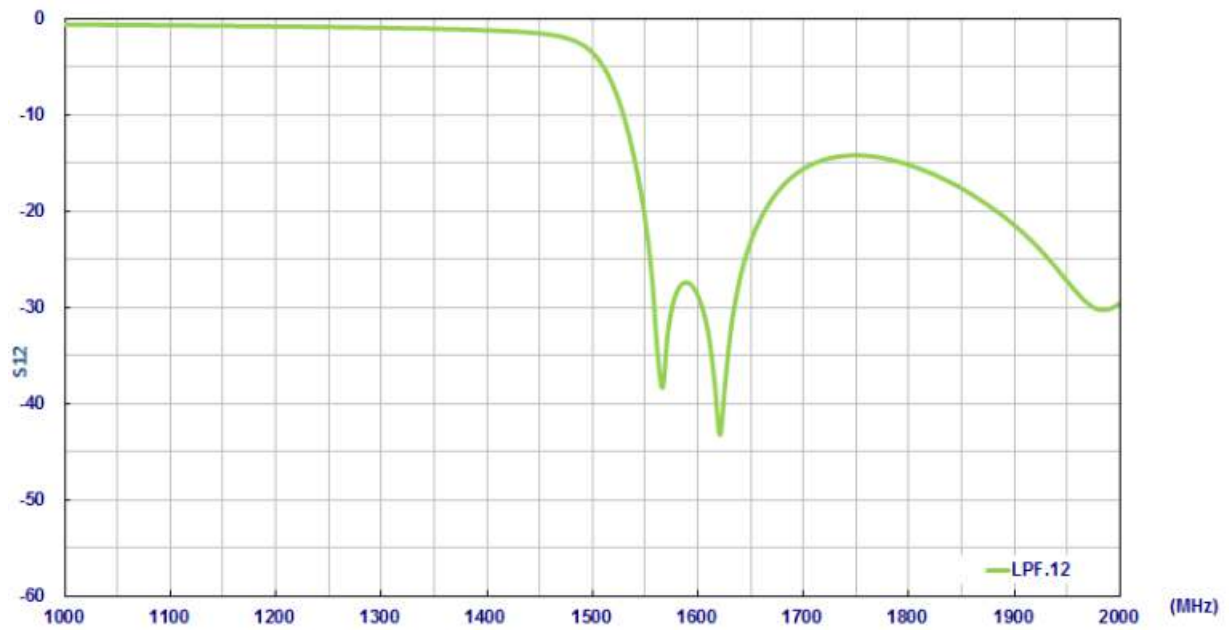
2. Specification Table

ELECTRICAL		
Pass Band Frequency	300~1400 MHz	
Pass Band Width	1100 MHz	
Input / Output Impedance	50 Ohm	
Max. Input Power	10W	
Pass Band Insertion Loss	1.0 dB typ.	1.1 dB max
Pass Band Ripple	1.0 dB max	
Pass Band Return Loss	10 dB min	
Stop-Band Attenuation	at 1565~1625 MHz	10 dB min
	at 1900~2200 MHz	20 dB min
	at 2400~2700 MHz	35 dB min
MECHANICAL		
Connector type	SMA(M) & SMA(F)	
Weight	9.820g	
Dimensions	39*10mm	
ENVIRONMENTAL		
Operating Temperature	-40°C to 85°C	

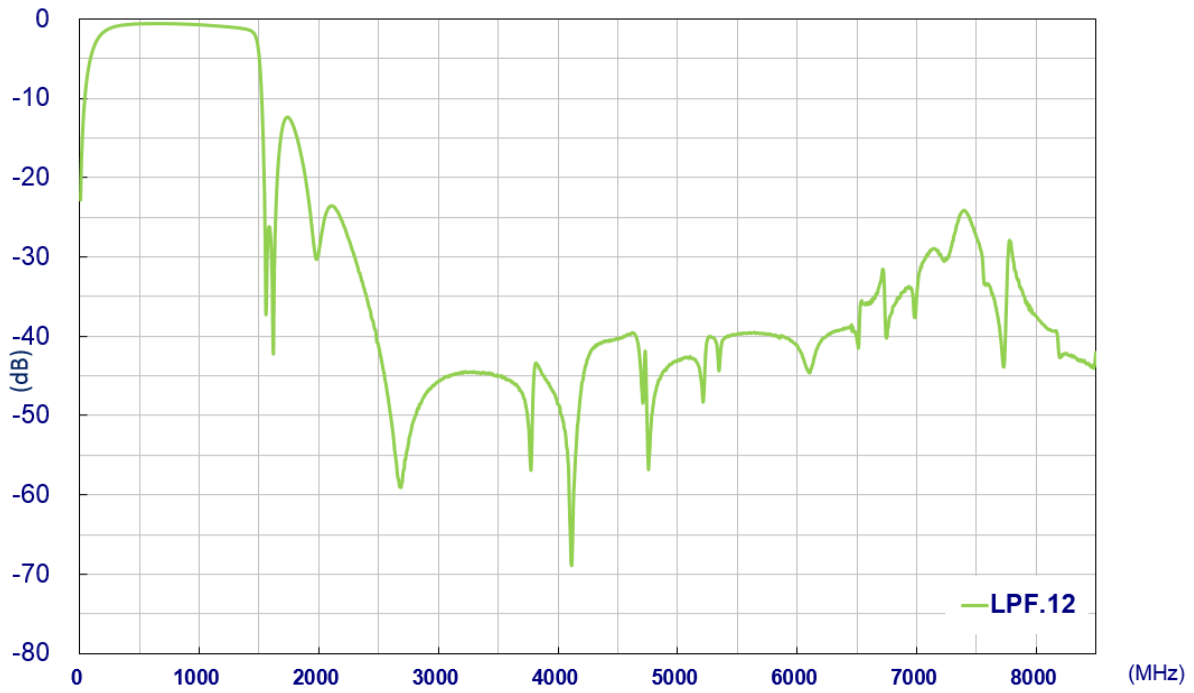
3. Electrical Specifications

3.1 S21

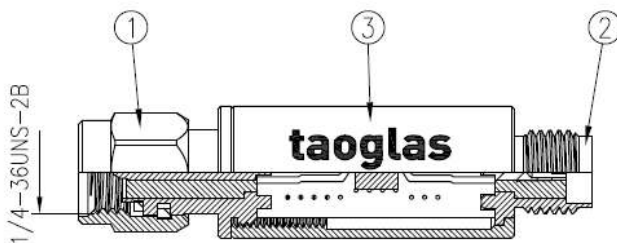
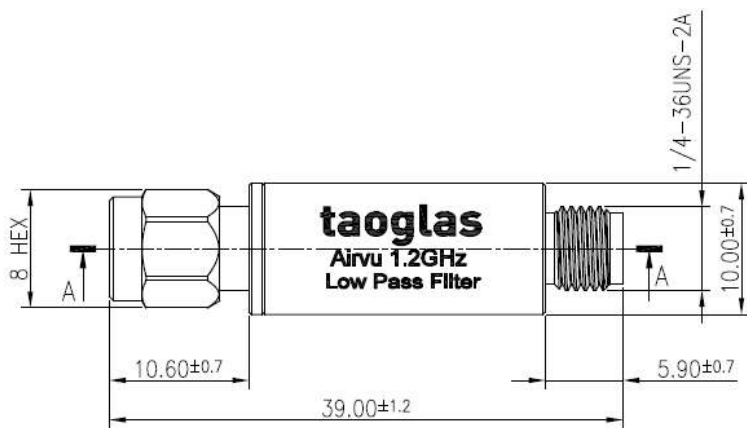
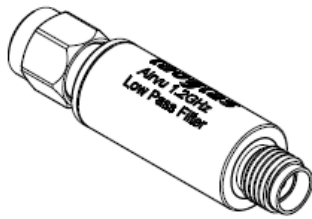
In Band View



Wide Band View



4. Mechanical Drawing (unit mm)



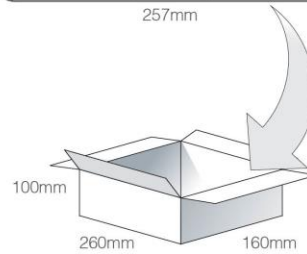
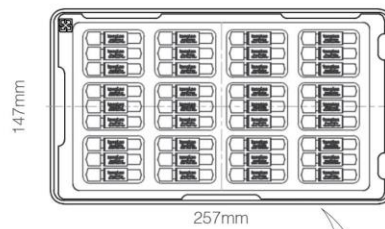
	Name	Material	Finish	QTY
1	SMA(M)	Brass	Ni Plated	1
2	SMA(F)	Brass	Ni Plated	1
3	Shell	Brass	Black-Ni Plated	1

5. Packaging

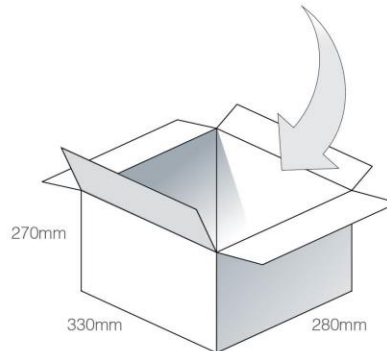
LPF.12.01

Packaging Specifications

36 pcs LPF.12.01 per tray
 (3 pcs per section)
 Tray Dimensions - 257*147*17mm
 Total Weight - 415g

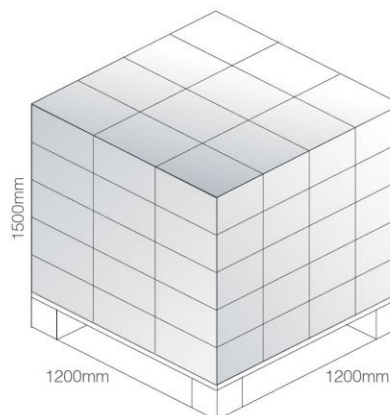


9 trays / 324 pcs per small box
 Box Dimensions - 260*160*100mm
 Weight - 3.4Kg

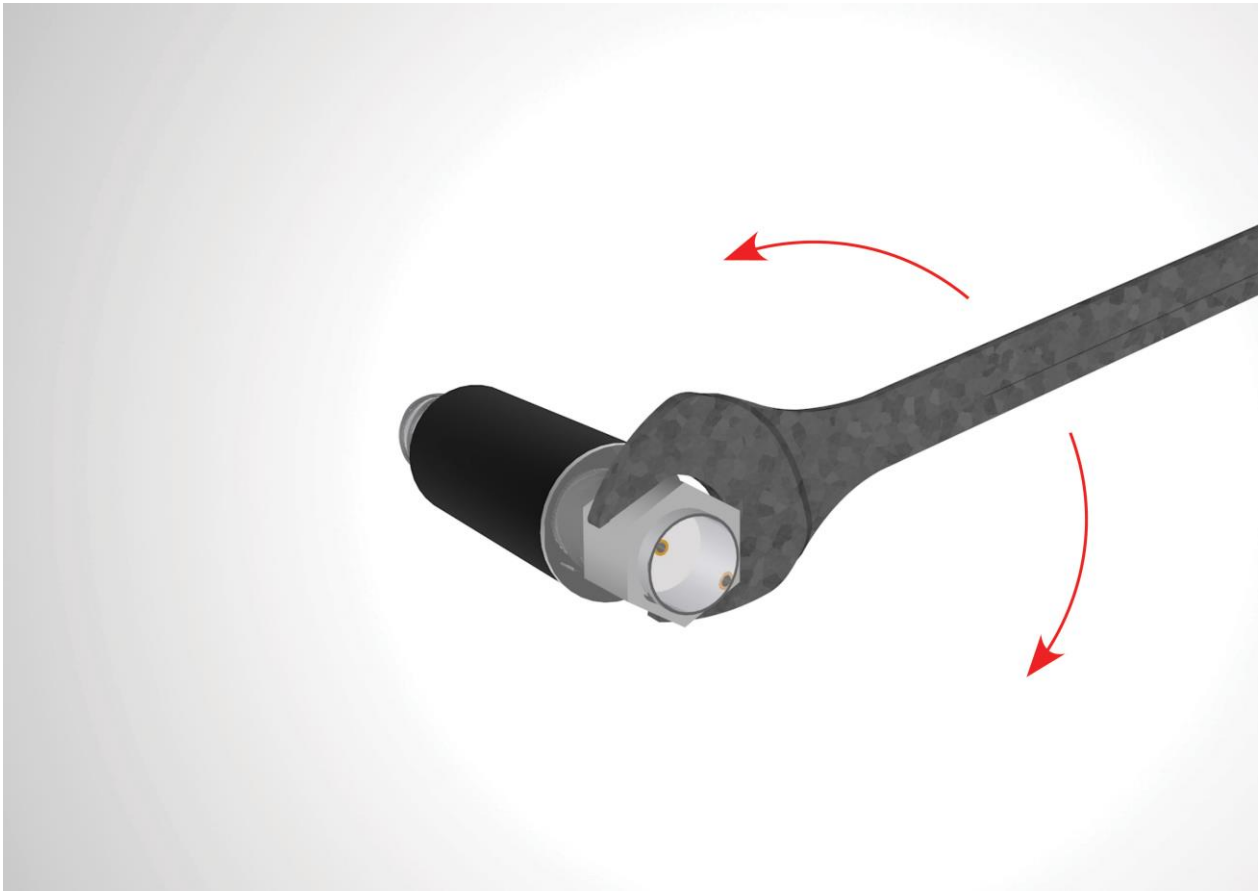


4 boxes / 1296 pcs per carton
 Carton Dimensions - 330*280*270mm
 Weight - 14Kg

Pallet Dimensions 1100*1100*1530mm
 60 Cartons per pallet
 12 Cartons per layer
 5 Layers



6. Installation Instructions



Torque Wrench 0.56.N.m