

Specification

Part No. : **BPF.58.01**

Product Name : Airvu 5.8 GHz Band Pass Filter
For UAV/Drone Antennas

Features : RP SMA(M) to RP SMA(F)
Frequency Range: 5480 - 5850 MHz
Insertion Loss: <2.1 dB
Material : Brass
Finish: Black Nickel Plated
Total Length: 35 mm



1. Introduction

The Airvu BPF.58 5.8GHz Band Pass Filter is placed on the end of the antenna port to eliminate or reduce radio interference problems on UAVs. It does this in two ways

1. It reduces out of band noise entering the receiver and causing 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 the control signal at 2.4GHz)

The ceramic filter inside the BPF.58 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 RP SMA(M) Plug to RP SMA(F) Jack interface, as most antennas at 5.8GHz have a RP SMA(M) connector as standard. This filter is designed to be easily screwed onto this standard antenna SMA connector.

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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.

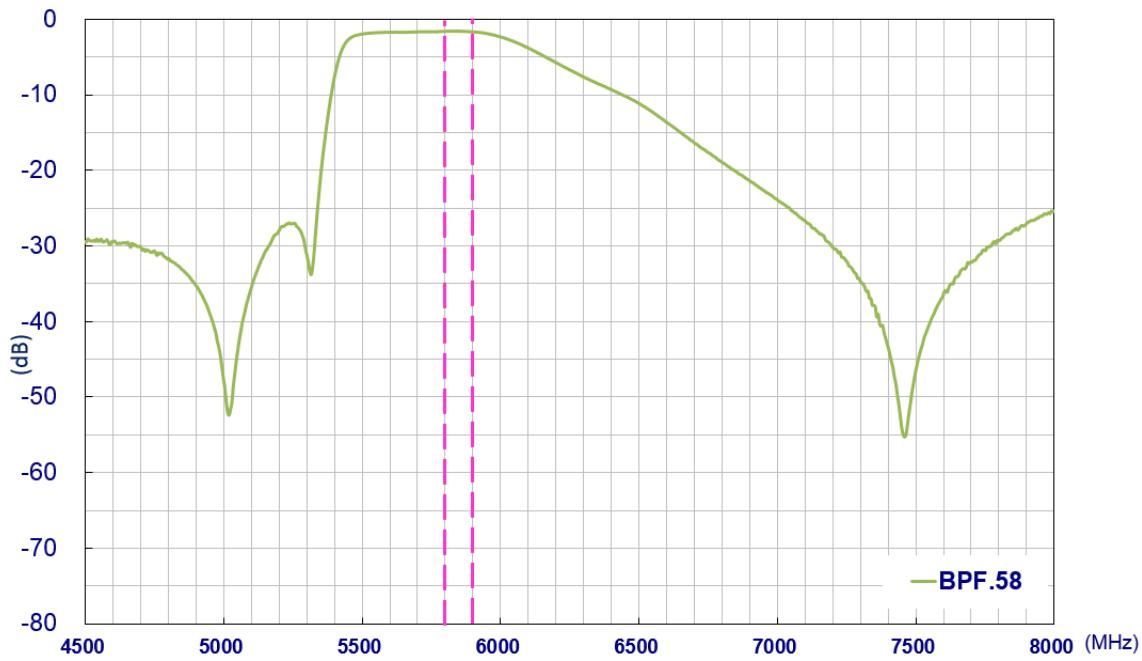
2. Specification Table

Electrical	
Pass Band Frequency	5480-5850 MHz
Pass Band Width	70 MHz
Input / Output Impedance	50 Ohm
Max. Input Power	10W
Pass Band Insertion Loss (0°C~70 °C)	2.1 dB or less
Pass Band Ripple	1.5 dB or less
Pass Band Return Loss	10 dB or more
Stop-Band	at 5150~5340 MHz
Attenuation	at 7500~7700 MHz
Mechanical	
Connector type	RP-SMA(M) & RP-SMA(F)
Weight	8.865g
Dimensions	35*10mm
Environmental	
Operating Temperature	-40°C to 85°C

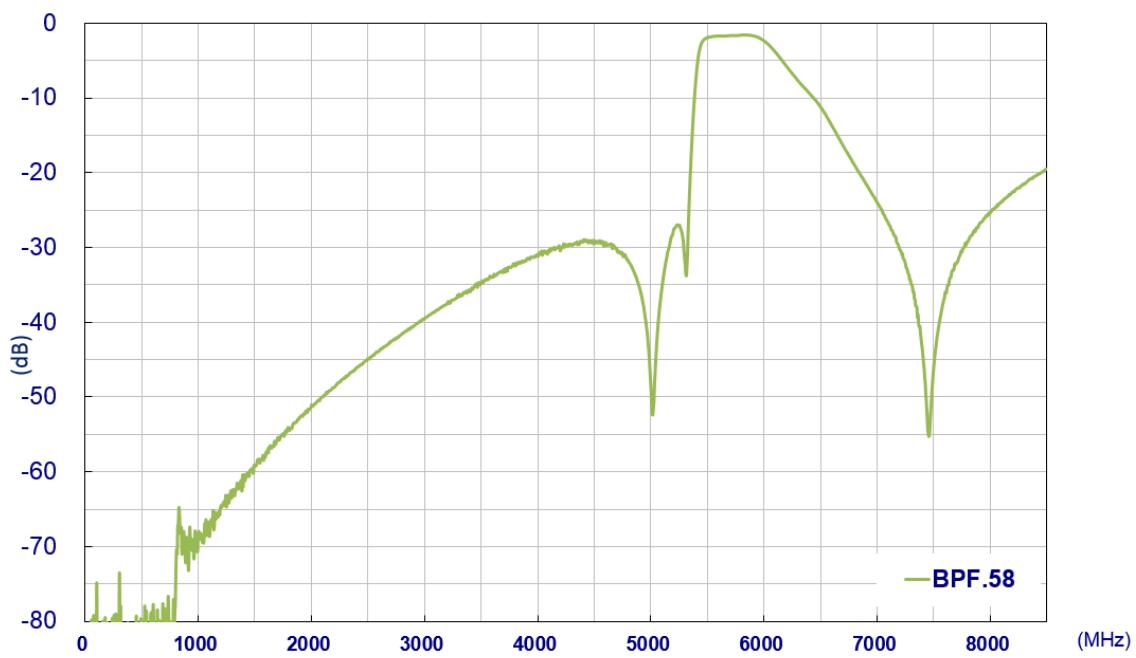
3. Electrical Specifications

3.1 S21

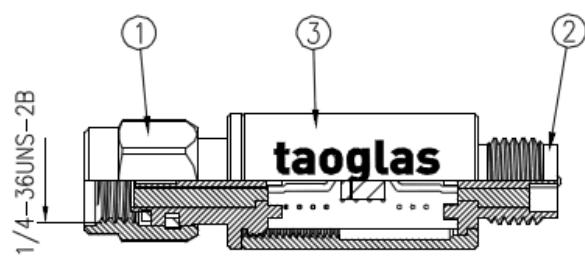
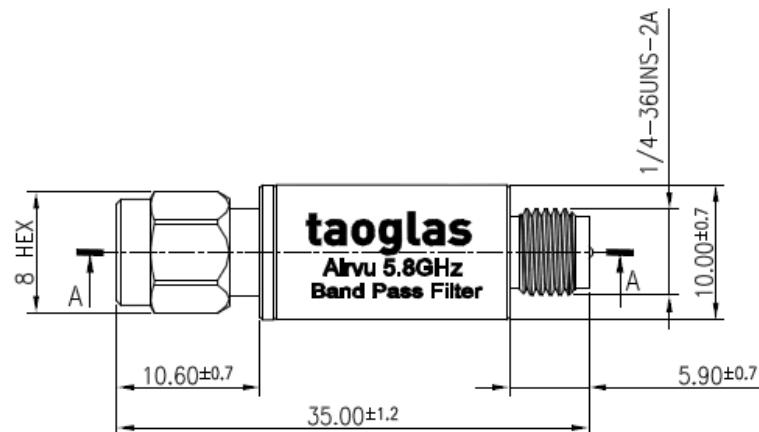
In Band View



Wide Band View



4. Mechanical Drawing (unit: mm)



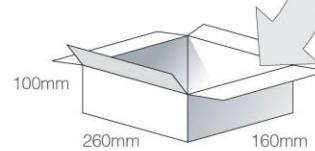
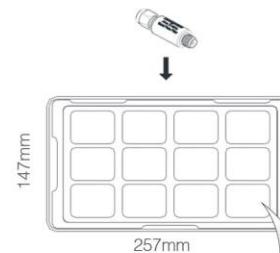
	Name	Material	Finish	QTY
1	RP-SMA(M)	Brass	Ni Plated	1
2	RP-SMA(F)	Brass	Ni Plated	1
3	Shell	Brass	Black-Ni Plated	1

5. Packaging

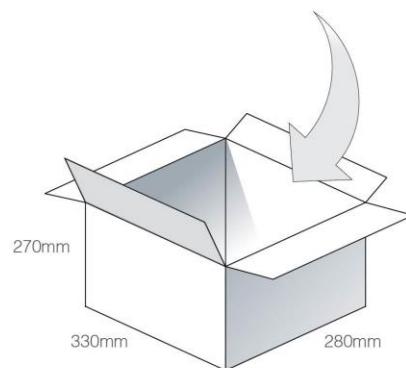
BPF.58.01

Packaging Specifications

36 pcs BPF.58.01 per tray
(3 pcs per section)
Tray Dimensions - 257*147*17mm
Total Weight - 374g

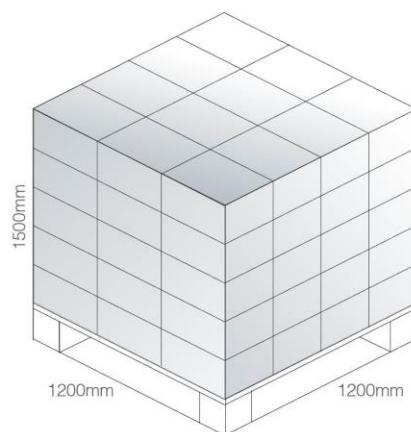


9 trays / 324 pcs per box
Box Dimensions - 260*160*100mm
Weight - 3.4Kg



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 0.56N.m

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