

## 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.

[Contact your regional Taoglas office for support](#)

### 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.

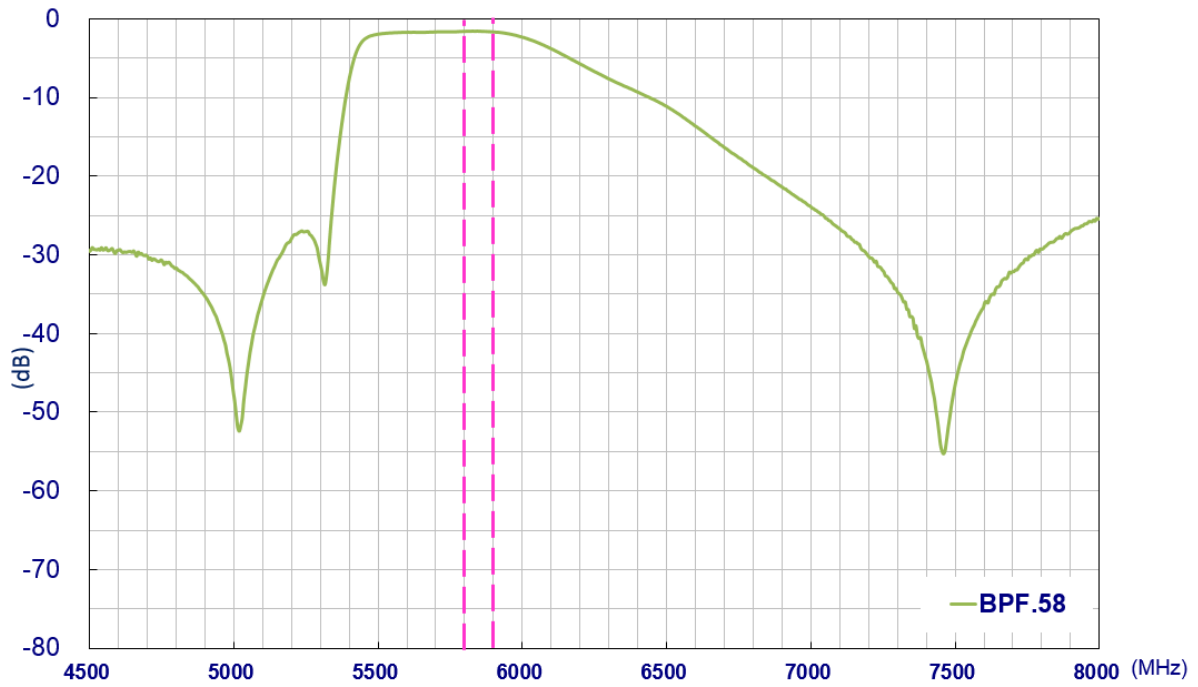
## 2. Specification Table

| 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 Attenuation                | at 5150~5340 MHz      | 17 dB or more |
|                                      | at 7500~7700 MHz      | 25 dB or more |
| ELECTRICAL                           |                       |               |
| Connector type                       | RP-SMA(M) & RP-SMA(F) |               |
| Weight                               | 8.865g                |               |
| Dimensions                           | 35*10mm               |               |
| ENVIRONMENTAL                        |                       |               |
| Operating Temperature                | -40°C to 85°C         |               |

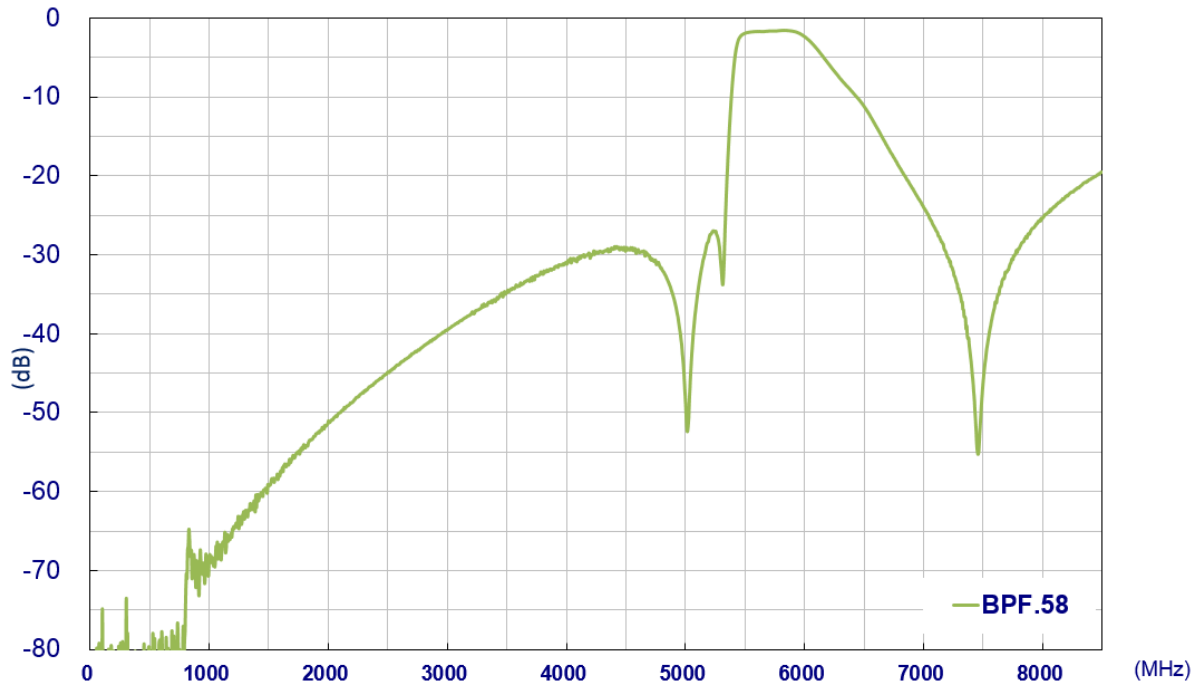
### 3. Electrical Specifications

#### 3.1 S21

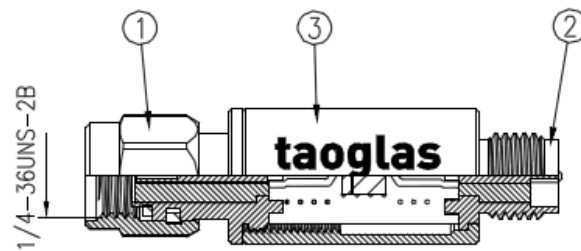
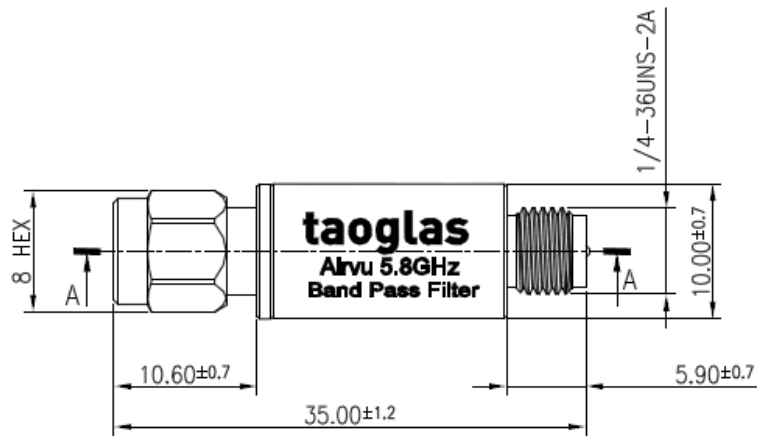
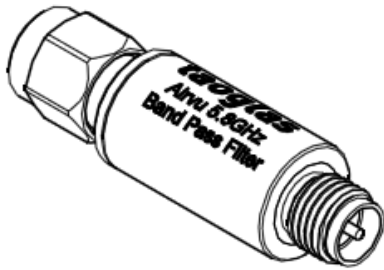
##### In Band View



### Wide Band View



## 4. Mechanical Drawing (unit: mm)



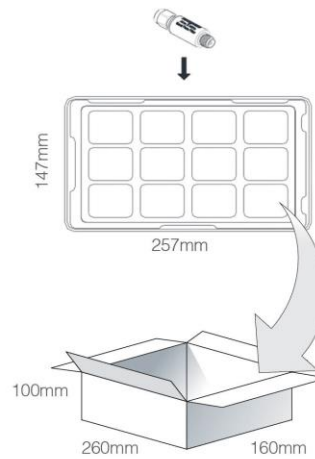
|   | Name      | Material | Finish          | QTY |
|---|-----------|----------|-----------------|-----|
| 1 | RP-SMA(M) | Brass    | Ni Plated       | 1   |
| 2 | RP-SMA(F) | Brass    | Ni Plated       | 1   |
| 3 | Shell     | Brass    | Black-Ni Plated | 1   |

## 5. Packaging

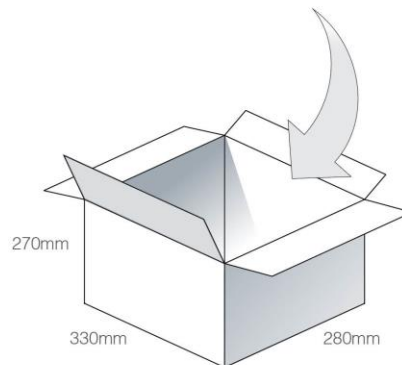
### BPF.58.01

#### 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 per carton  
 Carton Dimensions - 330\*280\*270mm  
 Weight - 14Kg

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

