



## Product Brief

# Walsin Band Pass Filter

RFBPF2520120A1T  
RFBPF2520120A3T

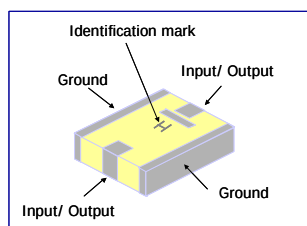
For IEEE 802.11b/g Application

## Product Description

The 2520-Series band pass filter by Walsin Technology Corporation offers excellent signal selection and harmonics suppression in wireless applications. The A1 and A3 versions especially outperform competitor products in terms of high rejection and low insertion loss.

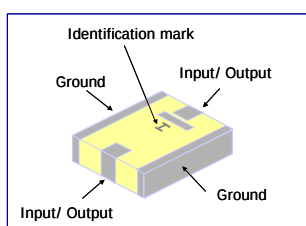
The multi-layer and ceramic construction of Walsin band pass filter is manufactured via advanced LTCC(Low-Temperature Co-Fired Ceramic) process and is suitable for high-frequency applications.

## Shapes and Dimensions



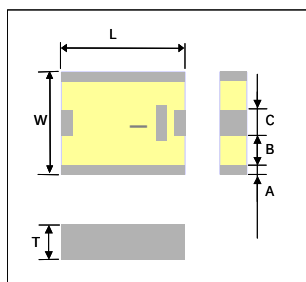
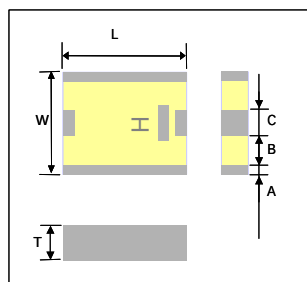
**RFBPF2520120A1T**

(High Rejection Type)



**RFBPF2520120A3T**

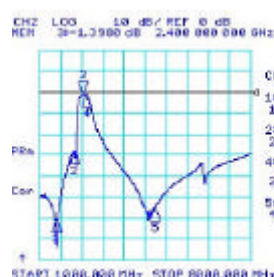
(Low Insertion Loss Type)



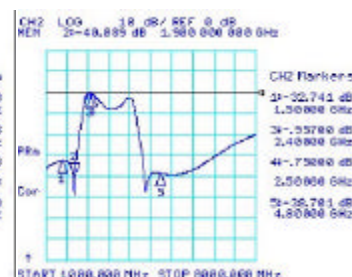
| Symbol | Dimension      |
|--------|----------------|
| L      | 2.50 ± 0.20 mm |
| W      | 2.00 ± 0.20 mm |
| T      | 1.20 ± 0.10 mm |
| A      | 0.25 ± 0.20 mm |
| B      | 0.50 ± 0.20 mm |
| C      | 0.50 ± 0.20 mm |

## Typical Electrical Performance

**RFBPF2520120A1T**



**RFBPF2520120A3T**



## Electrical Characteristics

| Item                  | PN | RFBPF2520120A1T                                                                        | RFBPF2520120A3T                             |
|-----------------------|----|----------------------------------------------------------------------------------------|---------------------------------------------|
| Dimension             |    | 2.5 x 2.0 x 1.2 mm <sup>3</sup>                                                        |                                             |
| Frequency Range       |    | 2450MHz ± 50 MHz                                                                       |                                             |
| Insertion Loss        |    | 1.7 dB                                                                                 | 1.2 dB                                      |
| Attenuation (dB min.) |    | 30 @ 900MHz<br>30 @ 1850MHz<br>20 @ 2100MHz<br>40 @ 4800MHz<br>25 @ 7200MHz(reference) | 30 @ 900MHz<br>30 @ 1850MHz<br>40 @ 4800MHz |

## Product Features

- Miniature Footprint
- Low Insertion Loss
- High Rejection Rate
- High Attenuation on 2<sup>nd</sup> and 3<sup>rd</sup> Harmonic Suppressed
- LTCC Process

## Contact Information

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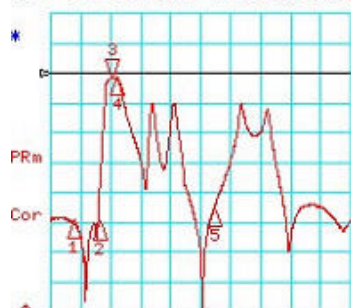
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RFBPF2520120A3T

For IEEE 802.11b/g Application

## Benchmarking

### High Rejection Type

CH1 LOG 10 dB/ REF 0 dB  
MEM 3i-1.6370 dB 2.400 000 000 GHz

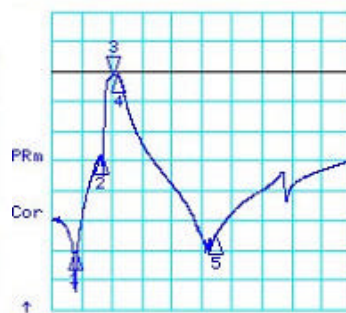


CH1 Markers  
1i-49.869 dB  
1.50000 GHz  
2i-49.988 dB  
2.10000 GHz  
4i-1.3330 dB  
2.50000 GHz  
5i-45.716 dB  
4.80000 GHz

START 1000.000 MHz STOP 8000.000 MHz

**S-747**

CH2 LOG 10 dB/ REF 0 dB  
MEM 3i-1.3980 dB 2.400 000 000 GHz



CH2 Markers  
1i-60.796 dB  
1.50000 GHz  
2i-28.568 dB  
2.10000 GHz  
4i-1.2380 dB  
2.50000 GHz  
5i-55.300 dB  
4.80000 GHz

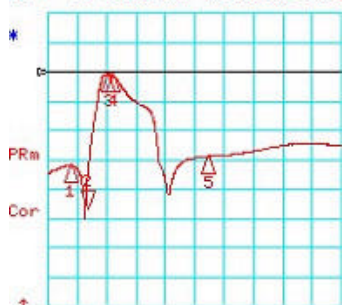
START 1000.000 MHz STOP 8000.000 MHz

**Walsin: RFBPF2520A1**

| P/N              | Insertion Loss |          | Attenuation |             |           |
|------------------|----------------|----------|-------------|-------------|-----------|
|                  | 2.1GHz         | 2.5GHz   | 1800MHz     | 3GHz ~ 4GHz | 4800MHz   |
| Walsin BPF2520A1 | -28.568dB      | -1.238dB | -50dB       | -40dB       | -53.799dB |
| S-747            | -49.988dB      | -1.333dB | -55dB       | ---         | -65.890dB |

### Low Insertion Loss Type

CH1 LOG 10 dB/ REF 0 dB  
MEM 2i-46.909 dB 1.900 000 000 GHz

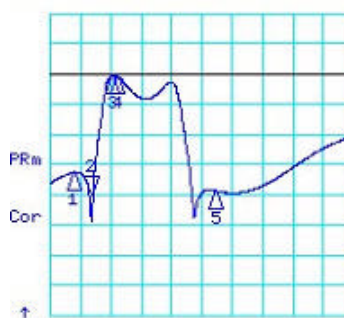


CH1 Markers  
1i-31.996 dB  
1.50000 GHz  
3i-0.80200 dB  
2.40000 GHz  
4i-0.81800 dB  
2.50000 GHz  
5i-28.830 dB  
4.80000 GHz

START 1000.000 MHz STOP 8000.000 MHz

**S-746**

CH2 LOG 10 dB/ REF 0 dB  
MEM 2i-40.089 dB 1.900 000 000 GHz



CH2 Markers  
1i-32.741 dB  
1.50000 GHz  
3i-0.95700 dB  
2.40000 GHz  
4i-0.75000 dB  
2.50000 GHz  
5i-30.701 dB  
4.80000 GHz

START 1000.000 MHz STOP 8000.000 MHz

**Walsin: RFBPF2520A3**

| P/N              | Insertion Loss |          | Attenuation |         |             |
|------------------|----------------|----------|-------------|---------|-------------|
|                  | 2.4GHz         | 2.5GHz   | 1800MHz     | 4800MHz | 5GHz ~ 6GHz |
| Walsin BPF2520A3 | -0.957dB       | -0.75dB  | -39dB       | -35dB   | -30dB       |
| S-746            | -0.802dB       | -0.818dB | -35dB       | -29dB   | -25dB       |



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# Walsin Band Pass Filter

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For IEEE 802.11b/g Application

## Ordering Code

| RF               | BPF                                               | 252012                                                                                                                      | 0                                                        | A                                             | 1                                                                                    | T                                                                                    |
|------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Walsin RF device | <b>Product Code</b><br><br>BPF : Band Pass Filter | <b>Dimension code</b><br><br>Per 2 digits of Length, Width, Thickness :<br>e.g. :252012 = Length 25, Width 20, Thickness 12 | <b>Unit of dimension</b><br><br>0 : 0.1 mm<br>1 : 1.0 mm | <b>Application</b><br><br>A : 2.4GHz ISM Band | <b>Specification Code</b> from 0 ~ 9 dependent on different electrical specification | <b>Packing</b><br><br>T : 7" Reeled<br>G : 10" Reeled<br>B : Bulk<br>X : SFC product |

## WALSIN TECHNOLOGY CORPORATION

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