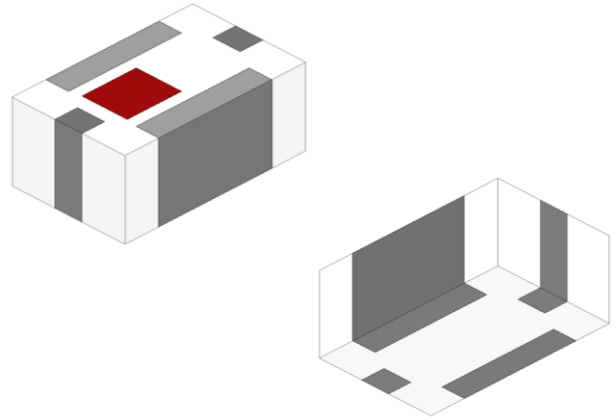


5.5 GHz Band Pass Filter

- 5150 - 5875 MHz passband
- Fit for wireless communication systems: Bluetooth, WLAN, Hyper-LAN, etc.
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 0805
- RoHS compliant



General Specifications^{1 2}

| | | |
|---------------------|-------------------|----------|
| Insertion Loss (dB) | 5150 – 5875 MHz | 1.5 Max. |
| Return Loss (dB) | 5150 – 5875 MHz | 9.5 Min. |
| Attenuation (dB) | 3500 MHz | 30 Min. |
| | 9800 - 11840 MHz | 25 Min. |
| | 14700 - 17760 MHz | 5 Min. |

Maximum Ratings

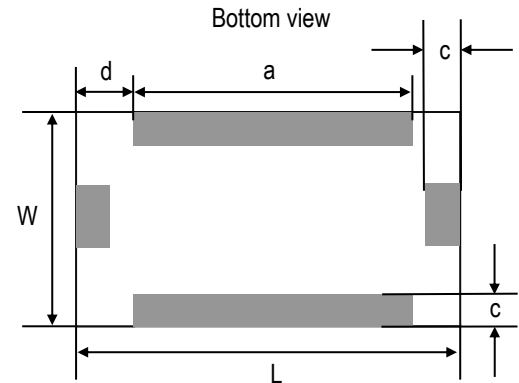
| | |
|--|---|
| Power Capacity (W) | 2 Max. (CW) |
| Operating Temperature (°C) | -40 to +85 |
| Recommended Storage Conditions post-installation (°C) | -40 to +85 |
| Recommended Storage Conditions and Period for Unused T&R Product | 45% - 75% RH +5 to +35 18 Months Max. |

¹ Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

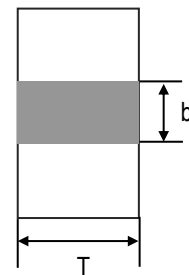
² General specifications measured on Johanson's evaluation board P/N 5515BP15B0725001CE1.

Mechanical Dimensions

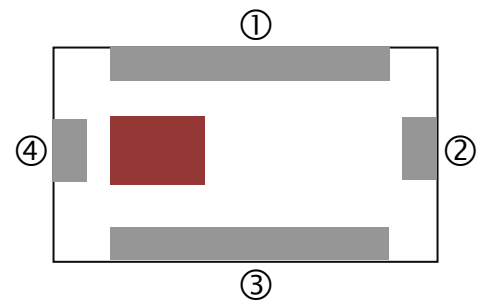
| | Inches | | | Millimeters | | |
|----------|--------|---|-------|-------------|---|------|
| L | 0.079 | ± | 0.006 | 2.00 | ± | 0.15 |
| W | 0.049 | ± | 0.004 | 1.25 | ± | 0.10 |
| T | 0.037 | ± | 0.004 | 0.95 | ± | 0.10 |
| a | 0.051 | ± | 0.006 | 1.30 | ± | 0.15 |
| b | 0.012 | ± | 0.006 | 0.30 | ± | 0.15 |
| c | 0.010 | ± | 0.006 | 0.25 | ± | 0.15 |
| d | 0.014 | ± | 0.006 | 0.35 | ± | 0.15 |



Side view



Top view



Terminal Configuration³

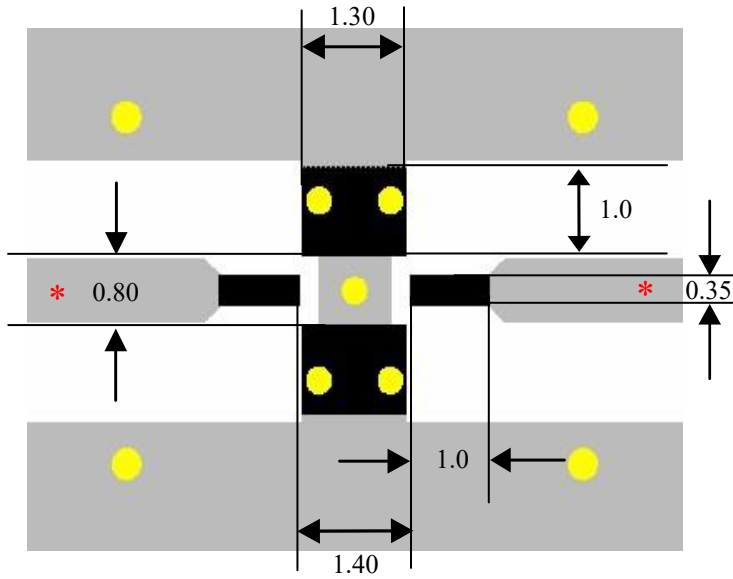
| Pin Number | Function |
|------------|--------------|
| 1 | GND |
| 2 | INPUT/OUTPUT |
| 3 | GND |
| 4 | INPUT/OUTPUT |

³ The termination type is Nickel Tin. Go to: <https://www.johansontechnology.com/ipcsoldering-profile> for Typical Soldering Profile.



Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

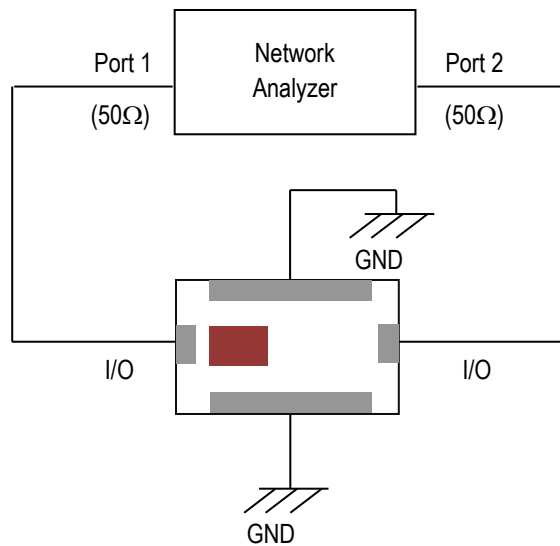
Land

Through-hole (ϕ 0.35)

* Transmission line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

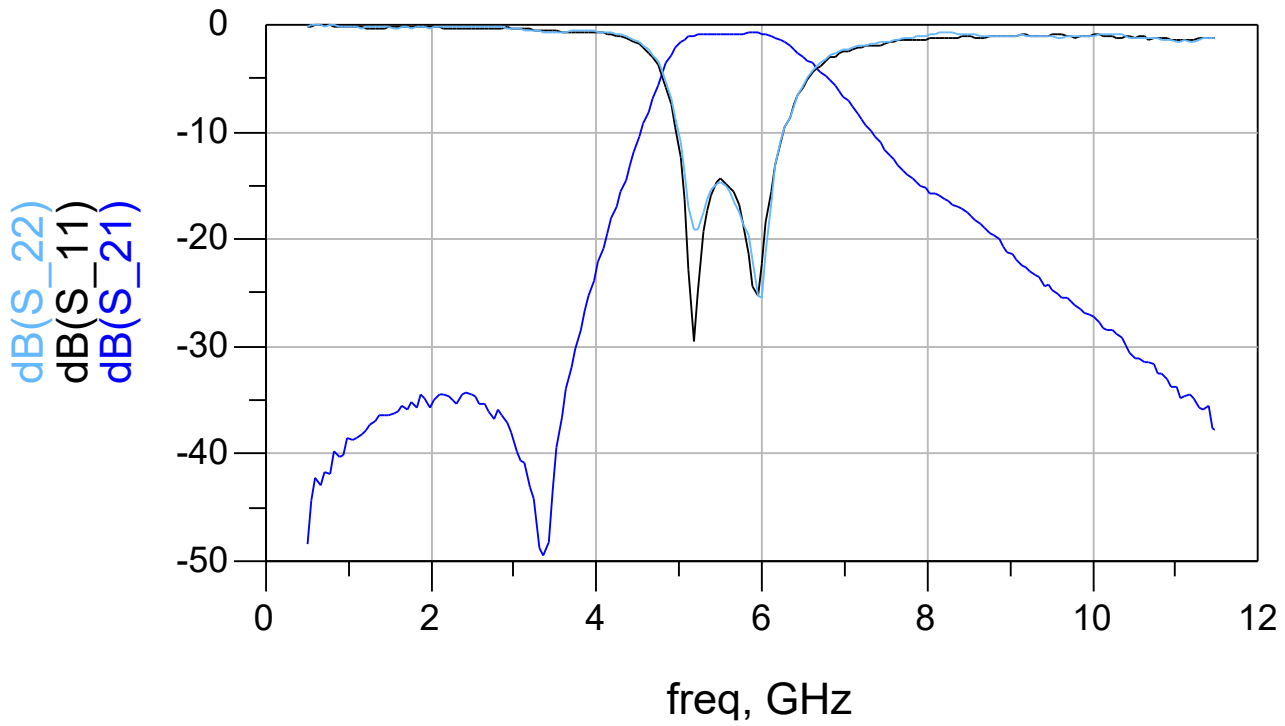
Measuring Diagram





RF Measurement (T = 25°C)

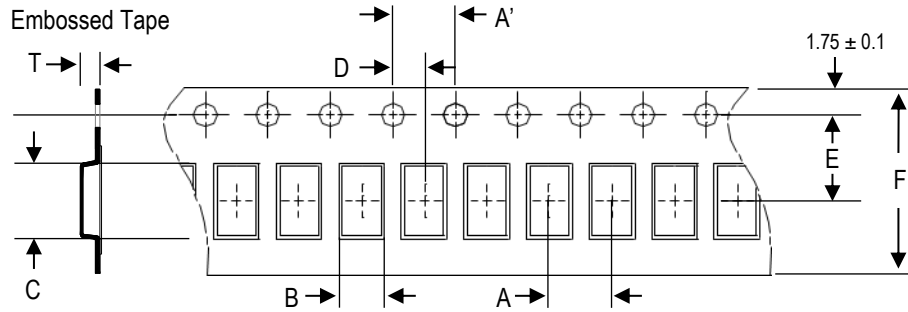
Insertion Loss, Return Loss and Attenuation



S-parameter, layout files and complimentary design review available upon request. Contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

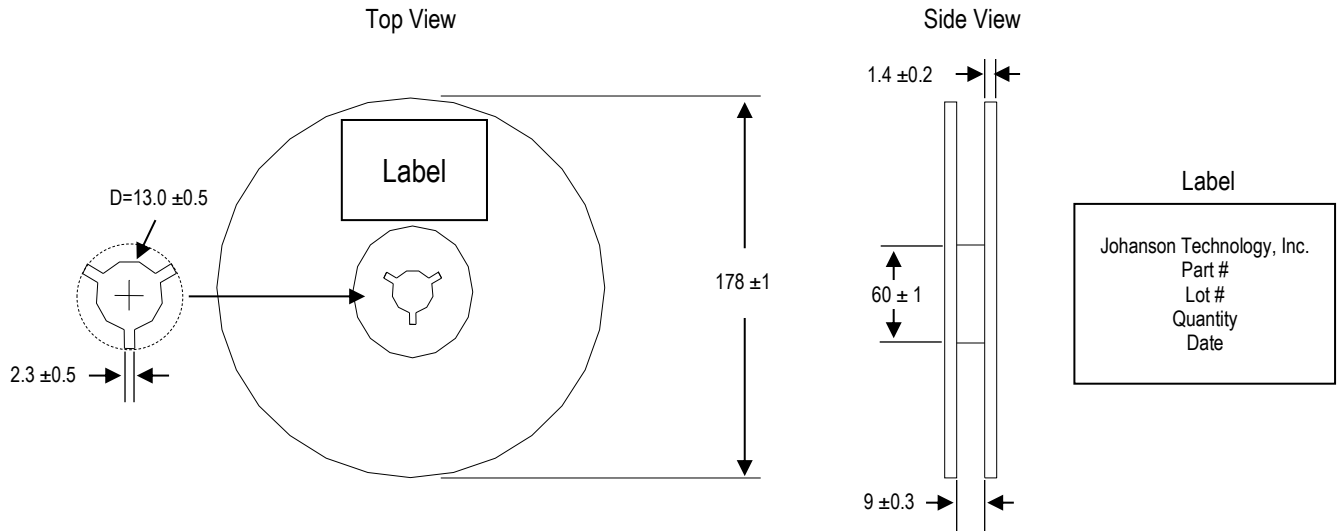
Tape and Reel Specification (Units in mm)

Tape Dimensions

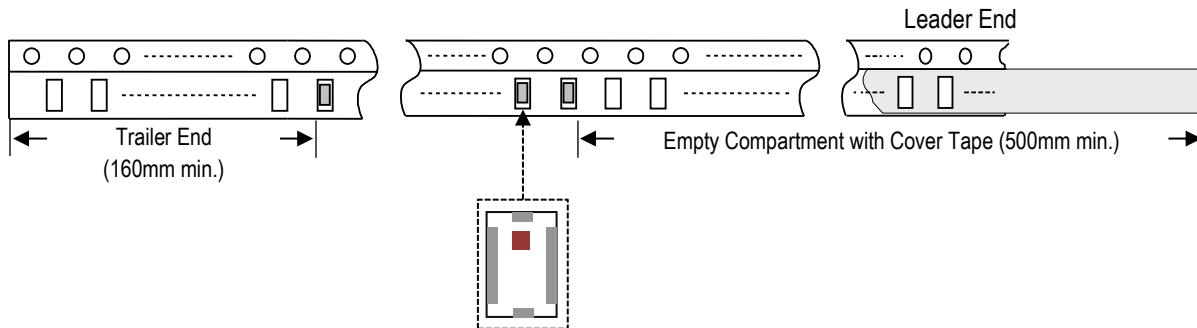


| A | A' | B | C | D | E | F | T | Quantity/reel | Tape material |
|----------|----------|------------|------------|-----------|----------|----------|------------|---------------|--------------------|
| 4.0 ±0.1 | 4.0 ±0.1 | 1.35 ±0.05 | 2.15 ±0.05 | 2.0 ±0.05 | 3.5 ±0.1 | 8.0 ±0.1 | 1.08 ±0.05 | 4,000pcs. | Plastic (Embossed) |

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

| Packaging Style | Part Number | Termination |
|--|--|-------------|
| Bulk (loose pcs.) | 5515BP15B0725001B | Nickel Tin |
| T & R (7" Reel Embossed Tape) | 5515BP15B0725001E (Qty: 4,000 pcs./reel) | |
| Evaluation Board with 2 SMA Connectors | 5515BP15B0725001CE1 | |

Important Links

[5515BP15B0725001E Product Page](#)

[More Band Pass Filters](#)

[Antenna Tuning, Optimization, and Validation Services](#)

[Soldering Information](#)

[MSL Information](#)

[Packaging Information](#)

[Recommended Storage Condition and Max Shelf Life](#)

[RoHS Compliance](#)

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