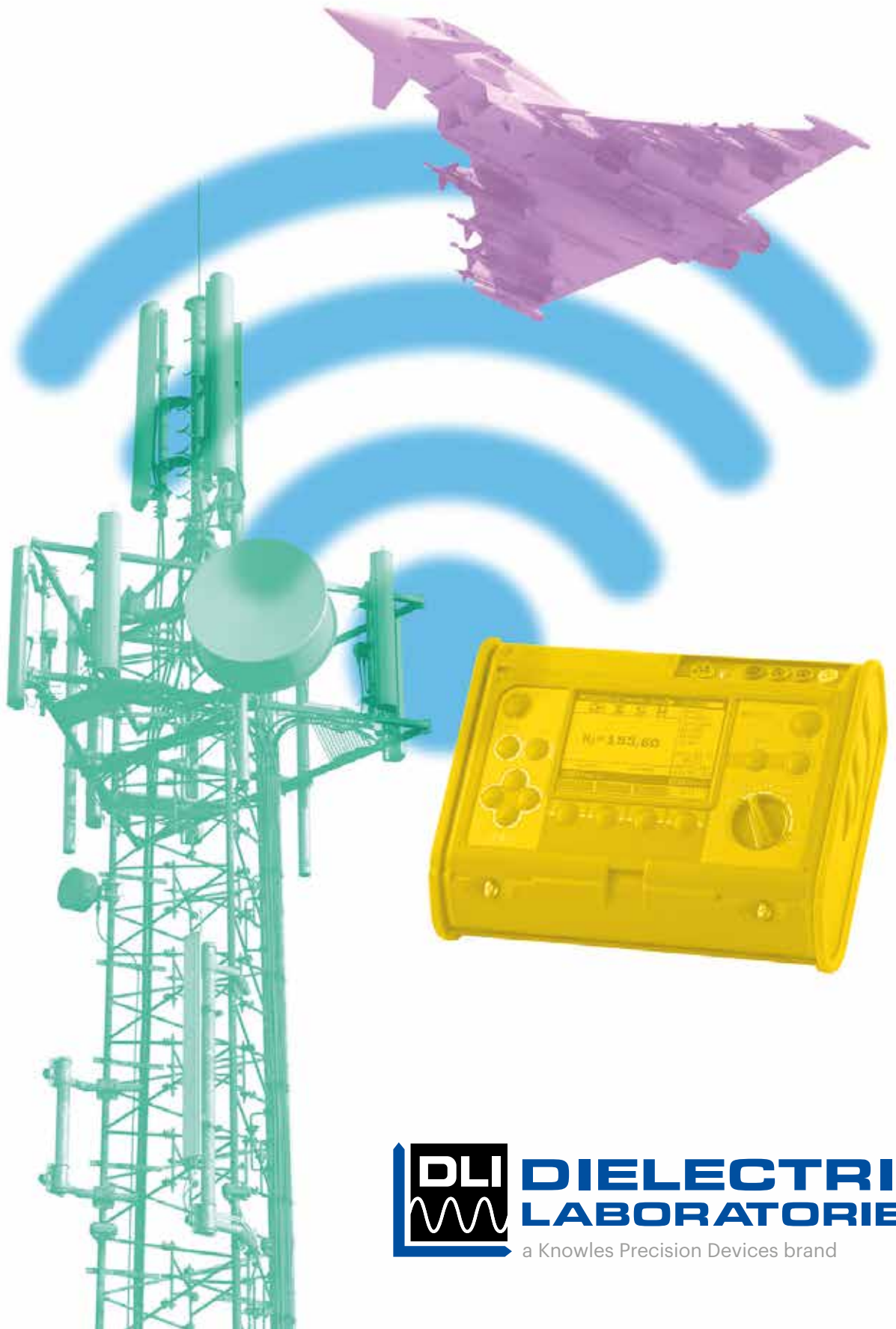


Microwave Products



DLI Microwave



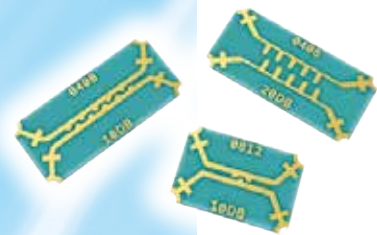
DLI's Microwave Catalog Products integrate two core competencies that have been honed for over 40 years; ceramic expertise and thin film manufacturing. Utilizing our high permittivity and temperature stable dielectric materials allows the product to be designed smaller than competition and offer higher selectivity in filtering applications. Combining the dielectric materials with our thin film fabrication and test capabilities allows our designers to push the limits of the materials and offer highly repeatable results for difficult microwave design solutions.

Over 10 years of designing custom solutions for very demanding defense and telecom applications has allowed DLI to create a catalog offering of Filters, Power Dividers and other passive devices such as Directional Couplers. In addition, we continue to support custom requests and offer many other solutions such as Cavity Filters (1-5% bandwidth), Diplexers and Gain Equalizers.

Please see our website at www.dilabs.com

Benefits/Advantages

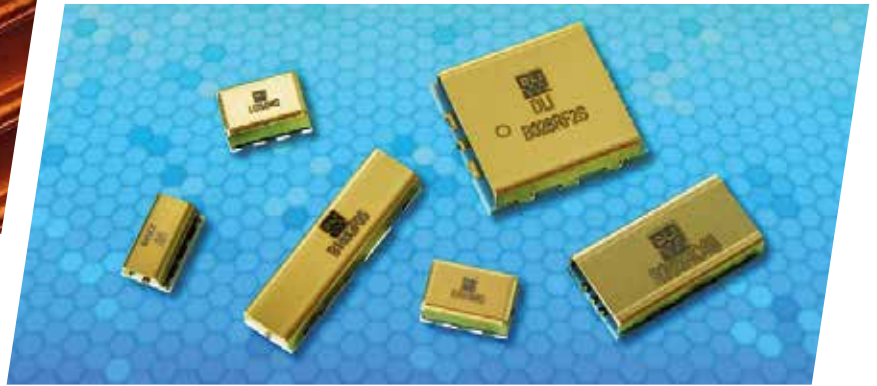
- Temperature Stable (-55 to +125°C)
- EAR99
- Surface Mount Assembly up to 42 GHz
- Lower Cost of Manufacturing Assembly
- Power Handling (up to 40 Watts)
- High Repeatability – Precision Thin Film Fabrication



Catalog Products

Typical Applications

- Microwave Radar
- Test Equipment
- Switch Filter Banks
- Satellite and Radio Communications
- Synthesizer and filter banks
- 5G Base Stations



RoHS Compliance Statement

DLI is a leading supplier to the electronic components market and is fully committed to offering products supporting Restriction of Hazardous Substances (RoHS) directives. All of our Dielectric formulations are RoHS compliant and we offer a broad range of capacitors with RoHS compliant terminations. DLI complies with the requirements of the individual customer and will maintain product offerings that meet the demands of our industry.

Quality and Environmental Policy

DLI's reputation for quality and environmental responsibility is based on a commitment not only to meet our customers' requirements, but to exceed their expectations. The entire organization, beginning with top management, strives to achieve excellence in designing, manufacturing and delivering High Q Capacitors and proprietary thin film components for niche high frequency applications, while maintaining safe and healthy working conditions. Furthermore, DLI commits to achieve these goals in an environmentally responsible manner through our commitment to comply with environmental regulations and pollution prevention initiatives. DLI strives to continually improve the effectiveness of our Quality and Environmental Management System through the establishment and monitoring of objectives and targets.



SMD Bandpass Filters

Features

- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω



Filters designed with high performance for microwave applications in a surface mountable package. Utilizing DLI's temperature stable, high permittivity dielectrics and thin film processing allow the designs to offer high selectivity without sacrificing on in-band performance. Designed for use on industry standard RF specific PCB materials.

Specifications

| Part Number | Center Frequency (GHz) | Passband (GHz) | Insertion Loss (@Fc) | | VSWR 50Ω System | Rejection (GHz) | | Length Inches (mm) | Width Inches (mm) | Height Inches (mm) |
|-------------|------------------------|----------------|----------------------|----------------|-----------------|---------------------|---------------------|--------------------|-------------------|--------------------|
| | | | @ 25°C | -40°C to +85°C | | LS Rejection (40dB) | HS Rejection (40dB) | | | |
| B012MD5S | 1.227 | 1.22 to 1.23 | 3.5 dB | 4.2 dB | 2.0:1 | DC to .925 | 1.45 to 2.5 | 0.460 (11.68) | 0.460 (11.68) | 0.113 (2.87) |
| B016MD6S | 1.575 | 1.57 to 1.58 | 3.5 dB | 4.2 dB | 2.0:1 | DC to 1.175 | 1.875 to 3.0 | 0.460 (11.68) | 0.460 (11.68) | 0.113 (2.87) |
| B024RF2S | 2.4 | 1.97 to 3.05 | 3.0 dB | 3.5 dB | 2.0:1 | DC to 1.25 | 3.8 to 4.75 | 0.500 (12.7) | 0.250 (6.35) | 0.110 (2.79) |
| B028RF2S | 3.0 | 2.0 to 4.0 | 2.5 dB | 3.0 dB | 1.63:1 | DC to 1.25 | 4.85 to 6.0 | 0.450 (11.43) | 0.400 (10.16) | 0.113 (2.87) |
| B031ND5S | 3.125 | 2.9 to 3.33 | 3.0 dB | 3.5 dB | 2.0:1 | DC to 2.4 | 3.85 to 7.0 | 0.500 (12.7) | 0.250 (6.35) | 0.100 (2.54) |
| B032ND5S | 3.24 | 2.95 to 3.55 | 3.0 dB | 3.5 dB | 1.67:1 | DC to 2.3 | 4.1 to 7.0 | 0.500 (12.7) | 0.250 (6.35) | 0.110 (2.79) |
| B033ND5S | 3.3 | 3.1 to 3.5 | 2.0 dB | 3.2 dB | 2.0:1 | DC to 2.25 | 4.0 to 6.0 | 0.393 (9.98) | 0.353 (8.97) | 0.128 (3.25) |
| B039NC5S | 3.95 | 3.7 to 4.2 | 2.5 dB | 2.75 dB | 2.0:1 | DC to 3.0 | 4.8 to 8.0 | 0.500 (12.7) | 0.250 (6.35) | 0.110 (2.79) |
| B040MB5S | 4.0 | 3.78 to 4.22 | 2.5 dB | 2.75 dB | 2.0:1 | DC to 3.4 | 4.6 to 10.0 | 0.500 (12.7) | 0.250 (6.35) | 0.100 (2.54) |
| B042ND4S | 4.25 | 3.75 to 4.75 | 3.0 dB | 3.5 dB | 1.67:1 | DC to 3.0 | 5.6 to 10.0 | 0.500 (12.7) | 0.250 (6.35) | 0.110 (2.79) |
| B047MC5S | 4.7 | 4.4 to 5.0 | 2.0 dB | 2.5 dB | 2.0:1 | DC to 3.8 | 5.55 to 11.0 | 0.500 (12.7) | 0.250 (6.35) | 0.100 (2.54) |
| B050NC4S | 5.0 | 4.5 to 5.5 | 2.0 dB | 2.5 dB | 1.67:1 | DC to 3.65 | 6.15 to 12.0 | 0.350 (8.89) | 0.200 (5.08) | 0.095 (2.41) |
| B052NC5S | 5.2 | 4.8 to 5.6 | 2.25 dB | 2.75 dB | 1.67:1 | DC to 3.5 | 6.2 to 12.5 | 0.350 (8.89) | 0.200 (5.08) | 0.095 (2.41) |
| B055NC5S | 5.5 | 5.0 to 6.0 | 2.0 dB | 2.5 dB | 1.67:1 | DC to 4.2 | 6.75 to 12.0 | 0.350 (8.89) | 0.200 (5.08) | 0.095 (2.41) |
| B057MC5S | 5.7 | 5.45 to 5.95 | 2.0 dB | 2.5 dB | 1.67:1 | DC to 4.7 | 6.6 to 14.25 | 0.350 (8.89) | 0.200 (5.08) | 0.110 (2.79) |
| B058MD7S | 5.7 | 5.5 to 6.1 | 2.3 dB | 2.8 dB | 1.67:1 | DC to 4.65 | 7.0 to 16.0 | 0.475 (12.1) | 0.275 (7.00) | 0.103 (2.62) |
| B056RC4S | 6.0 | 4.0 to 8.0 | 3.0 dB | 3.5 dB | 1.5:1 | DC to 3.0 | 9.5 to 12.0 | 0.450 (11.43) | 0.230 (5.84) | 0.100 (2.54) |
| B060NC5S | 6.0 | 5.5 to 6.5 | 2.0 dB | 3.0 dB | 1.29:1 | DC to 4.9 | 7.1 to 14.0 | 0.500 (12.7) | 0.200 (5.08) | 0.088 (2.24) |
| B062MC5S | 6.3 | 5.9 to 6.7 | 2.5 dB | 2.75 dB | 1.67:1 | DC to 5.2 | 7.5 to 15.0 | 0.500 (12.7) | 0.250 (6.35) | 0.095 (2.41) |
| B065NC5S | 6.5 | 6.0 to 7.0 | 3.0 dB | 3.5 dB | 1.67:1 | DC to 5.2 | 7.75 to 15.0 | 0.500 (12.7) | 0.250 (6.35) | 0.095 (2.41) |
| B070NC5S | 7.0 | 6.37 to 7.63 | 2.0 dB | 2.5 dB | 2.0:1 | DC to 5.8 | 8.5 to 17.5 | 0.500 (12.7) | 0.200 (5.08) | 0.100 (2.54) |
| B070MB6S | 7.1 | 6.7 to 7.25 | 2.5 dB | 2.75 dB | 2.0:1 | DC to 6.2 | 7.82 to 15.0 | 0.500 (12.7) | 0.200 (5.08) | 0.100 (2.54) |
| B076MB6S | 7.6 | 7.24 to 7.96 | 2.5 dB | 2.75 dB | 2.0:1 | DC to 6.69 | 8.52 to 18.25 | 0.500 (12.7) | 0.200 (5.08) | 0.100 (2.54) |
| B080MB5S | 8.0 | 7.5 to 8.5 | 2.0 dB | 3.0 dB | 1.29:1 | DC to 6.8 | 9.25 to 17.0 | 0.500 (12.7) | 0.180 (4.57) | 0.100 (2.54) |
| B081RC0S | 8.5 | 6.0 to 11.0 | 3.4 dB | 3.9 dB | 2.0:1 | DC to 3.5 | 14.0 to 19.0 | 0.190 (4.83) | 0.100 (2.54) | 0.090 (2.87) |
| B096QC2S | 10 | 8.0 to 12.0 | 2.5 dB | 3.0 dB | 2.0:1 | DC to 6.0 | 14.0 to 18.0 | 0.400 (10.86) | 0.180 (4.57) | 0.100 (2.54) |
| B120MB1S | 12 | 11.5 to 12.5 | 2.0 dB | 3.0 dB | 1.29:1 | DC to 10.6 | 13.2 to 19.5 | 0.525 (13.34) | 0.225 (5.72) | 0.090 (2.27) |
| B148QF0S | 15 | 12.0 to 18.0 | 3.6 dB | 4.2 dB | 1.63:1 | DC to 7.6 | 23.0 to 25.0 | 0.550 (13.97) | 0.150 (3.81) | 0.098 (2.49) |
| B161LA0S | 16 | 15.5 to 16.5 | 4.0 dB | 6.0 dB | 1.67:1 | DC to 14.5 | 17.2 to 21.5 | 0.695 (17.65) | 0.250 (6.35) | 0.093 (2.36) |
| B274MB1S | 28 | 26.5 to 29.5 | 3.25 dB | 3.5 dB | 1.92:1 | DC to 24.0 | 31.0 to 39.0 | 0.450 (11.43) | 0.110 (2.794) | 0.089 (2.26) |
| B280LB0S | 28 | 27.0 to 29.0 | 1.5 dB | 2.0 dB | 2.0:1 | DC to 25.0 | 30.75 to 34.25 | 0.350 (8.89) | 0.120 (3.05) | 0.098 (2.49) |
| B280LA0S | 28 | 27.5 to 28.5 | 4.0 dB | 4.5 dB | 2.0:1 | DC to 26.0 (35dB) | 29.5 to 37.5 (30dB) | 0.550 (14.00) | 0.140 (3.56) | 0.083 (2.11) |
| B385MD0S | 38.5 | 37.0 to 40.0 | 2.5 dB | 2.75 dB | 1.92:1 | DC to 34.0 | 45.0 to 50.0 | 0.275 (6.985) | 0.080 (2.032) | 0.075 (1.905) |
| B424MEZS | 42.5 | 39.7 to 45.3 | 1.5 dB | 2.0 dB | 2.0:1 | DC to 37.0 (30dB) | 47.5 to 60.0 (30dB) | 0.236 (6.00) | 0.080 (2.03) | 0.065 (1.65) |

1) Electrical specifications based on typical probed performance at room temperature.

2) Above parts can be supplied in wire bondable format (epoxy and Au wire bond), please consult factory for details.

Lowpass Filters

These LPF's incorporate DLI's low loss high permittivity ceramics which provide small size and temperature stability. The catalog LPF's are offered in a variety of frequency bands, which offers a drop in solution for high frequency attenuation. With extreme repeatability, can place multiple in series for increased rejection or speak to the factory for a custom solution.



Features

- Small Size
- Fully Shielded Component
- Frequency Stable over Temperature
- Solder Surface Mountable
- Excellent Repeatability
- Operating Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω
- 100% Tested & Inspected

Specifications

| Part Number | 3 dB Cutoff (GHz) | Passband (GHz) | Max Insertion Loss in Passband | Min VSWR in Passband | Mounting | Min Rejection GHz (30dB) | Length Inches (mm) | Width Inches (mm) | Height Inches (mm) |
|-------------|-------------------|----------------|--------------------------------|----------------------|----------|--------------------------|--------------------|-------------------|--------------------|
| L050XF9S | 5.0 | DC - 4.0 | 1.0 dB | 1.288:1 | SMD | 6.0 to 18.0 | 0.220 (5.59) | 0.180 (4.57) | 0.103 (2.62) |
| L065XG9W | 6.5 | DC to 6.0 | 1.3 dB | 1.33:1 | WB | 8.0 to 24.5 | 0.220 (5.59) | 0.140 (3.56) | 0.118 (3.0) |
| L065XG9S | 6.5 | DC - 6.0 | 1.3 dB | 1.22:1 | SMD | 7.9 to 26.0 | 0.220 (5.59) | 0.180 (4.57) | 0.103 (2.62) |
| L095XG9S | 9.5 | DC - 9.0 | 1.3 dB | 1.12:1 | SMD | 11.5 to 32.0 | 0.220 (5.59) | 0.140 (3.56) | 0.103 (2.62) |
| L117XH4S | 11.7 | DC - 11.0 | 1.0 dB | 1.43:1 | SMD | 17.0 to 32.0 | 0.220 (5.59) | 0.140 (3.56) | 0.103 (2.62) |
| L128XH4S | 12.8 | DC - 12.0 | 1.2 dB | 1.38:1 | SMD | 18.8 to 34.5 | 0.220 (5.59) | 0.140 (3.56) | 0.103 (2.62) |
| L117XH4W | 13.1 | DC to 12.6 | 2.0 dB | 1.67:1 | WB | 17.0 to 35.0 | 0.220 (5.59) | 0.140 (3.56) | 0.113 (2.87) |
| L157XG3S | 15.7 | DC - 15.0 | 2.2 dB | 1.3:1 | SMD | 20.0 to 35.5 | 0.220 (5.59) | 0.140 (3.56) | 0.103 (2.62) |
| L185XF4S | 18.5 | DC - 18.0 | 2.2 dB | 1.4:1 | SMD | 22.5 to 42.5 | 0.220 (5.59) | 0.140 (3.56) | 0.098 (2.49) |
| L185XF4W | 18.5 | DC to 18.0 | 2.0 dB | 2.0:1 | WB | 21.0 to 40.0 | 0.220 (5.59) | 0.140 (3.56) | 0.113 (2.87) |
| L204XF4S | 20.4 | DC - 20.0 | 1.8 dB | 1.43:1 | SMD | 23.0 to 43.0 | 0.220 (5.59) | 0.140 (3.56) | 0.098 (2.49) |
| L254XF3S | 25.4 | DC - 25.0 | 1.4 dB | 1.3:1 | SMD | 29.0 to 50.0 | 0.220 (5.59) | 0.140 (3.56) | 0.098 (2.49) |
| L288XC3S | 28.6 | DC to 27.65 | 2.0 dB | 1.92 :1 | SMD | 30.5 to 50.0 | 0.220 (5.58) | 0.140 (3.56) | 0.098 (2.49) |
| L157XF3W | 17.0 | DC to 16.5 | 2.0 dB | 1.67:1 | WB | 20.0 to 38.0 | 0.220 (5.58) | 0.140 (3.56) | 0.108 (2.74) |



Highpass Filters

DLI introduces its new high frequency surface mountable catalog Highpass filters. These HPF's incorporate DLI's low loss high permittivity ceramics which provide small size and temperature stability. The catalog HPF's are offered in a variety of frequency bands, which offers a drop in solution for high frequency attenuation.

Specifications

| Part Number | 3dB cutoff (GHz) | Passband (GHz) | Typical Insertion Loss in Passband | Minimum VSWR in Passband | Minimum Rejection GHz (30dB) | Usable Temp. Range | Length Inches (mm) | Width Inches (mm) | Height Inches (mm) |
|-------------|------------------|----------------|------------------------------------|--------------------------|------------------------------|--------------------|--------------------|-------------------|--------------------|
| H060XHXS | 6.0 | 6.5 - 20.0 | 1.0 dB | 1.43:1 | DC to 3.5 | -55 to +125°C | 0.450 (11.43) | 0.200 (5.08) | 0.093 (2.362) |
| H080XHXS | 8.0 | 8.5 - 22.0 | 1.0 dB | 1.43:1 | DC to 5.0 | -55 to +125°C | 0.450 (11.43) | 0.200 (5.08) | 0.093 (2.362) |
| H100XHXS | 10.0 | 10.5 - 23.0 | 1.0 dB | 1.43:1 | DC to 5.5 | -55 to +125°C | 0.450 (11.43) | 0.175 (4.445) | 0.083 (2.108) |
| H120XHXS | 12.0 | 12.5 - 30.0 | 1.0 dB | 1.43:1 | DC to 9.0 | -55 to +125°C | 0.450 (11.43) | 0.175 (4.445) | 0.083 (2.108) |
| H140XHXS | 14.0 | 14.5 - 28.0 | 1.0 dB | 1.43:1 | DC to 9.5 | -55 to +125°C | 0.450 (11.43) | 0.175 (4.445) | 0.083 (2.108) |
| H160XHXS | 16.0 | 16.5 - 32.5 | 1.0 dB | 1.43:1 | DC to 12.1 | -55 to +125°C | 0.450 (11.43) | 0.175 (4.445) | 0.083 (2.108) |
| H168XHXS | 16.95 | 18.0 - 30.0 | 1.0 dB | 1.43:1 | DC to 11.6 | -55 to +125°C | 0.450 (11.43) | 0.175 (4.445) | 0.083 (2.108) |
| H182XHXS | 18.2 | 18.75 - 28.0 | 1.0 dB | 1.7:1 | DC to 14.0 | -55 to +125°C | 0.450 (11.43) | 0.175 (4.445) | 0.083 (2.108) |



DLI's Wilkinson Power Dividers are available in SMD and wire bondable formats. These power dividers incorporate DLI's low loss, high permittivity ceramics, providing smaller size and temperature stability. The integrated thin film resistors improve phase and amplitude balance over broadband devices. The compact size and proven performance offer a superior option over integration in a soft board material with discrete resistors.

Features

- Broad Band 2 to 18 GHz Frequency Coverage
- Low Excess Insertion Loss
- High Isolation
- Excellent Phase and Amplitude Balance
- Well matched on All Ports
- No External Resistors Required
- Compact Solder Surface Mount Package



Power Dividers

Specifications

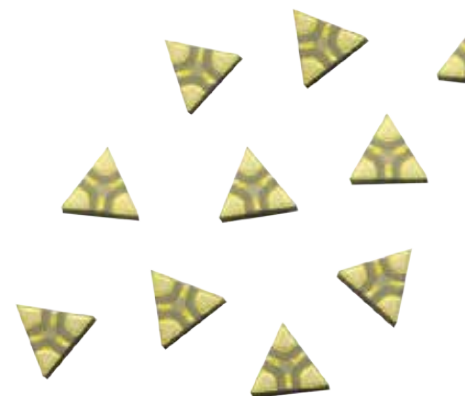
| Part Number | Frequency Range (GHz) | Amplitude Balance Max. (dB) | Phase Balance Max. (degrees) | Excess Insertion Loss Typ. (dB) | Return Loss Typ. (dB) | Isolation Typ. (dB) | Input Power as a Splitter Max. (W) ² | Mounting | Config. | Size Inches (mm) |
|-----------------|-----------------------|-----------------------------|------------------------------|---------------------------------|-----------------------|---------------------|---|-------------|---------|--|
| PDW06407 | 2.0 to 18.0 | ±0.25 | ±5.0 | 2.5 | 18 | 20 | TBD | SMD | 2-Way | 0.600 x 0.180 x 0.020 (15.24 x 4.572 x 0.508) |
| PDW06933 | 2.0 to 18.0 | ±0.25 | ±5.0 | 2.5 | 18 | 20 | TBD | Chip & Wire | 2-Way | 0.600 x 0.180 x 0.020 (15.24 x 4.572 x 0.508) |
| PDW06038 | 2.0 to 10.0 | ±0.25 | ±3.0 | 0.8 | 20 | 20 | 5 | SMD | 2-Way | 0.400 x 0.250 x 0.020 (10.16 x 6.35 x 0.508) |
| PDW06041 | 2.0 to 10.0 | ±0.25 | ±3.0 | 0.8 | 20 | 20 | 5 | Chip & Wire | 2-Way | 0.400 x 0.250 x 0.020 (10.16 x 6.35 x 0.508) |
| PDW05758 | 6.0 to 18.0 | ±0.25 | ±3.0 | 0.7 | 20 | 25 | 5 | SMD | 2-Way | 0.185 x 0.160 x 0.020 (4.699 x 4.064 x 0.508) |
| PDW06011 | 6.0 to 18.0 | ±0.25 | ±3.0 | 0.7 | 20 | 25 | 5 | Chip & Wire | 2-Way | 0.185 x 0.160 x 0.020 (4.699 x 4.064 x 0.508) |
| PDW06089 | 6.0 to 18.0 | ±0.5 | ±3.0 | 1.0 | 14 | 14 | TBD | SMD | 4-Way | 0.250 x 0.300 x 0.020 (6.35 x 7.62 x 0.508) |
| PDW06398 | 5.0 to 7.0 | ±0.25 | ±5.0 | 0.25 | 20 | 18 | TBD | SMD | 2-Way | 0.120 x 0.240 x 0.015 (3.048 x 6.096 x 0.381) |
| PDW06399 | 9.0 to 11.0 | ±0.25 | ±5.0 | 0.25 | 20 | 15 | TBD | SMD | 2-Way | 0.150 x 0.100 x 0.015 (3.81 x 2.54 x 0.381) |
| PDW06400 | 11.0 to 13.0 | ±0.25 | ±5.0 | 0.5 | 25 | 20 | TBD | SMD | 2-Way | 0.130 x 0.130 x 0.015 (3.302 x 3.302 x 0.381) |
| PDW06401 | 15.0 to 17.0 | ±0.25 | ±5.0 | 0.5 | 25 | 20 | TBD | SMD | 2-Way | 0.120 x 0.120 x 0.015 (3.048 x 3.048 x 0.381) |
| PDW07691 | 18.0 to 20.0 | ±2.50 | ±5.0 | 0.5 | 15 | 20 | 3.0 | SMD | 2-Way | 0.100 x 0.100 x 0.0150 (2.54 x 2.54 x 0.381) |
| PDW06984 | 25.0 to 32.0 | ±0.25 | ±3.0 | 0.8 | 15 | 15 | TBD | SMD | 2-Way | 0.085 x 0.095 x 0.010 (2.159 x 2.413 x 2.54) |
| PDW07069 | 25.0 to 32.0 | ±0.25 | ±5.0 | 1.0 | 15 | 15 | TBD | SMD | 4-Way | 0.140 x 0.170 x 0.010 (3.556 x 4.318 x 2.54) |
| PDW07630 | 25.0 to 32.0 | ±0.25 | ±5.0 | 0.25 | 20 | 14 | TBD | SMD | 2-Way | 0.070 x 0.070 x 0.010 (1.778 x 1.778 x 2.54) |

Notes: 1) Electrical Specifications at 25°C; Over Temperature Performance TBD. 2) Load VSWR not to Exceed 1.2:1; Base Temperature not to Exceed 85°C.

Resistive Dividers

Specifications

| Part Number | Frequency Range (GHz) | Excess Insertion Loss Typ. (dB) | Return Loss Typ. (dB) | Mounting | Length Inches (mm) | Width Inches (mm) | Height Inches (mm) |
|-----------------|-----------------------|---------------------------------|-----------------------|----------|--------------------|-------------------|--------------------|
| PDR06390 | DC to 20.0 | 0.25 | 20 | SMD | 0.075 (1.905) | 0.070 (1.778) | 0.010 (0.254) |
| PDR05848 | DC to 40.0 | 0.5 | 20 | SMD | 0.075 (1.905) | 0.065 (1.651) | 0.010 (0.254) |
| PDR06120 | DC to 40.0 | 0.5 | 20 | WB | 0.075 (1.905) | 0.065 (1.651) | 0.010 (0.254) |
| PDR06380 | DC to 40.0 | 0.5 | 20 | SMD | 0.075 (1.905) | 0.065 (1.651) | 0.010 (0.254) |



Specifications

| Part Number | Frequency Range (GHz) | Mean Coupling Value (dB) | Max Insertion Loss (dB) | Return Loss Typ. (dB) | Size Inches (mm) |
|-------------|-----------------------|--------------------------|-------------------------|-----------------------|---|
| FPC06882 | DC to 25 | 25 | 2 | 12 | 0.060 x 0.088 x 0.010 (15.24 x 2.235 x 2.54) |
| FPC06881 | DC to 25 | 20 | 2 | 12 | 0.060 x 0.088 x 0.010 (15.24 x 2.235 x 2.54) |
| FPC07802 | DC to 40 | 25 | 2.5 | 12 | 0.060 x 0.088 x 0.010 (15.24 x 2.235 x 2.54) |
| FPC07803 | DC to 40 | 17 | 3 | 12 | 0.060 x 0.088 x 0.010 (15.24 x 2.235 x 2.54) |

Resistive Couplers

Couplers



DLI's surface mount directional coupler series now cover up to 40 GHz. While custom coupling values are achievable, offerings in 3, 10 and 20 dB are available with common footprints for maximum flexibility. These couplers offer a turnkey solution in SMD or Chip and Wire format for high frequency power monitoring. Custom solutions are also available.

Features

- Small Size • High Directivity • Frequency Stable over Temperature
- Solder Surface Mountable • Excellent Repeatability
- Operating Temp: -55°C to +125°C • Characteristic Impedance: 50Ω
- Flexible PCB Feed Line Configurations

Specifications

| Part Number | Frequency Range (GHz) | Mean Coupling Value (dB) | Passband Coupling Variation Typ. (dB) | Insertion Loss Typ. (dB) | Return Loss Typ. (dB) | Isolation Typ. (dB) | Directivity Typ. (dB) | Mounting | Size Inches (mm) |
|-------------|-----------------------|--------------------------|---------------------------------------|--------------------------|-----------------------|---------------------|-----------------------|-------------|--|
| FPC06700 | 5.9 to 6.5 | 3 | 1.0 | 0.5 | 15 | 20 | 17 | SMD | 0.425 x 0.250 x 0.020 (10.795 x 6.35 x 0.508) |
| FPC06630 | 9.0 to 11.0 | 3 | NA | 0.5 | 15 | 18 | 15 | SMD | 0.286 x 0.180 x 0.015 (7.264 x 4.57 x 0.381) |
| FPC06701 | 10.7 to 12.75 | 3 | 1.0 | 0.5 | 12 | 15 | 12 | SMD | 0.255 x 0.155 x 0.015 (6.477 x 3.937 x 0.381) |
| FPC07180 | 2.0 to 18.0 | 20 | 4.5 | 0.8 | 15 | 20 | 20 | SMD | 0.500 x 0.150 x 0.015 (12.7 x 3.81 x 0.381) |
| FPC07183 | 24.0 to 33.0 | 3 | ± 0.5 | 0.5 | 15 | 15 | 12 | SMD | 0.180 x 0.110 x 0.010 (4.572 x 2.794 x 2.54) |
| FPC06073 | 4.0 to 8.0 | 10 | ± 1.5 | 0.3 | 20 | 30 | 20 | SMD | 0.170 x 0.080 x 0.015 (4.318 x 2.032 x 0.381) |
| FPC06149 | 4.0 to 8.0 | 10 | N/A | 0.3 | 18 | 30 | 20 | Chip & Wire | 0.180 x 0.080 x 0.015 (4.572 x 2.032 x 0.381) |
| FPC06076 | 4.0 to 8.0 | 20 | ± 1.5 | 0.3 | 20 | 40 | 20 | SMD | 0.170 x 0.080 x 0.015 (4.318 x 2.032 x 0.381) |
| FPC06152 | 4.0 to 8.0 | 20 | N/A | 0.3 | 15 | 35 | 16 | Chip & Wire | 0.180 x 0.080 x 0.015 (4.572 x 2.032 x 0.381) |
| FPC06719 | 6.0 to 18.0 | 10 | 1.0 | 0.3 | 15 | 20 | 10 | SMD | 0.255 x 0.100 x 0.015 (6.477 x 2.54 x 0.381) |
| FPC06913 | 6.0 to 18.0 | 20 | 1.0 | 0.3 | 12 | 28 | 8 | SMD | 0.180 x 0.110 x 0.015 (4.572 x 2.794 x 0.381) |
| FPC06074 | 8.0 to 12.0 | 10 | ± 1.0 | 0.3 | 14 | 25 | 15 | SMD | 0.120 x 0.080 x 0.015 (3.048 x 2.032 x 0.381) |
| FPC06150 | 8.0 to 12.0 | 10 | N/A | 0.3 | 12 | 18 | 8 | Chip & Wire | 0.130 x 0.090 x 0.015 (3.302 x 2.286 x 0.381) |
| FPC06153 | 8.0 to 12.0 | 20 | N/A | 0.3 | 15 | 30 | 12 | Chip & Wire | 0.130 x 0.090 x 0.015 (3.302 x 2.286 x 0.381) |
| FPC06302 | 8.0 to 12.0 | 20 | N/A | 0.3 | 15 | 35 | 15 | SMD | 0.120 x 0.080 x 0.015 (3.048 x 2.032 x 0.381) |
| FPC06077 | 8.0 to 12.0 | 25 | ± 1.0 | 0.3 | 15 | 30 | 10 | SMD | 0.120 x 0.080 x 0.015 (3.048 x 2.032 x 0.381) |
| FPC06075 | 12.0 to 18.0 | 10 | ± 0.5 | 0.3 | 15 | 25 | 14 | SMD | 0.100 x 0.080 x 0.015 (2.54 x 2.032 x 0.381) |
| FPC06151 | 12.0 to 18.0 | 10 | N/A | 0.5 | 12 | 18 | 10 | Chip & Wire | 0.100 x 0.080 x 0.015 (2.54 x 2.032 x 0.381) |
| FPC06078 | 12.0 to 18.0 | 20 | ± 1.0 | 0.3 | 15 | 35 | 14 | SMD | 0.100 x 0.080 x 0.015 (2.54 x 2.032 x 0.381) |
| FPC06154 | 12.0 to 18.0 | 20 | N/A | 0.3 | 10 | 15 | 10 | Chip & Wire | 0.100 x 0.080 x 0.015 (2.54 x 2.032 x 0.381) |
| FPC07182 | 20.0 to 40.0 | 10 | ± 1.5 | 0.3 | 10 | 28 | 15 | SMD | 0.065 x 0.050 x 0.010 (1.651 x 1.27 x 2.54) |
| FPC07181 | 20.0 to 40.0 | 20 | ± 1.5 | 0.3 | 12 | 34 | 10 | SMD | 0.065 x 0.050 x 0.010 (1.651 x 1.27 x 2.54) |



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